



process owners being responsible for the management of processes across the various phases of its lifecycle (see e.g. [2;8;20]), but little beyond that. It is the aim of this paper to shed light on these and other issues that relate to how process owners operate in *industrial practice*. The contribution of this paper is that it provides a contemporary, descriptive view on process ownership. This view may help organizations to reflect on their process ownership fulfillment. Our work may be used as the academic starting point for creating and supporting an informed, uniform, and prescriptive view on this subject.

To gather the insights we desire, we conducted both a survey and two case studies in The Netherlands with a *descriptive* research design. An important principle that guided our design is that process ownership is probably not a static role. In one of the few studies that empirically investigates process ownership, it was established that organizations that are well progressed with BPM or, in other words, display a high level of BPM maturity (BPMM) appoint a higher proportion of process owners compared to organizations in early stages of BPM adoption [14]. Also, but then from a prescriptive point of view, it has been argued that the role of the process owner *must* change as the organization's BPM initiative matures [5]. Therefore, our investigation of process ownership goes hand-in-hand with determining the maturity that organizations display with respect to their BPM initiatives.

The structure of the paper is then as follows. In the next section we will provide a review of the literature on process ownership. The review will particularly highlight the omissions in the existing body of knowledge. Next, we discuss in Section 3 our research design, followed by a presentation of the results from the survey and case studies in Section 4. Section 5 contains a discussion of the results and our conclusions.

## 2 Literature review

Process owners are broadly recognized as being important in a process-oriented approach to manage business operations. Hammer describes no less than four phases of process ownership in his tool to assess the maturity of business processes and enterprises [6]. Similarly, process owners – next to other process-related roles – are also considered as part of the governance structure in a recent BPM maturity model [16;17]. It should be noted, however, that support for the importance of process ownership is mostly anecdotic, as in e.g. [8].

The only empirical work known to us that considers the process owner role both methodologically and empirically is [14]. The authors' main insight is that organizations that are well progressed with BPM appoint a higher portion of process owners and that these are more often to be found at both a senior level and supervisory / frontline level than is the case for early stage organizations. It should be mentioned that the survey at the basis of these findings was carried out in 1996, more than a decade ago. That there *is* a notable uncertainty on process ownership in industrial practice was reported more recently in [10]. As the authors put it "often there is no explicit or implicit agreement of process ownership [within an organization]".

Except that process owners are considered important, little consensus exists on what process owners really are. Hammer & Champy [7] use the notion to identify the person responsible for the reengineering of a specific process, including establishing the standards of performance. As summarized in [10], Hammer *cum suis* state that the process owner must have the end-to-end accountability for a process. Rather than Hammer's powerful technocrat, Siemieniuch and Sinclair see process owners implementing an *administrative function* with as main responsibilities and tasks the documentation of a process and the evaluation and approval of process changes [19]. A more reflective, observing interpretation of the process owner role can also be found in [20]. Hardjono and Bakker describe a more elaborate role for the process owners as fulfilling a *management* and *control* function [9]. But in contrast to Hammer's strong emphasis on the reengineering phase of a process, Hardjono and Bakker clearly link the process owner to *all* phases of the process lifecycle. Furthermore, they argue that process ownership should be assigned as *low* in the organization as possible, to encourage 'a spirit of entrepreneurship'. The additional benefit of this level is that this is beneficial for the organization's customer focus. Clearly, this sharply contrasts with the examples provided by Hammer in [6] and [8] where process owners are senior managers. Hardjono and Bakker's view is also not consistent with the evolving nature of process owners in [14].

The only attempt that we are aware of to arrive at a prescriptive view on the tasks and responsibilities of a process owner from a more or less methodological requirements analysis is given in [10]. However, this attempt specifically aims at the situation where process ownership is implemented in an *inter-organizational* context and the role is closely linked to the implementation of IT.

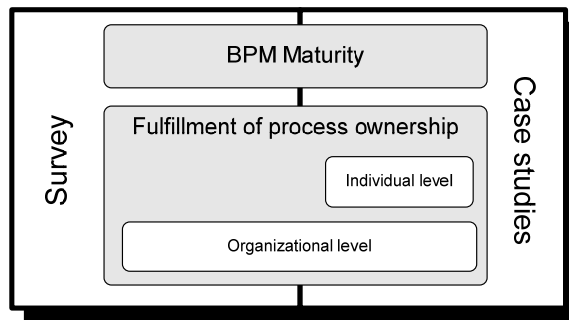
In summary, the literature provides limited insight into process ownership. Firstly, in most publications where process ownership is addressed, the topic is treated superficially – almost as if authors take the subject for granted. Secondly, only little empirical research has been conducted in this area. Thirdly, most articles in which process ownership is touched are prescriptive in nature, but are in disagreement in many respects. This leads to a situation in which little consensus exists on the *preferable* fulfillment of process ownership and no insight at all into how organizations *actually* implement this role.

### 3 Research design

The main research question that we address with this work is: How is process ownership fulfilled in practice across different levels of BPM maturity? This question is considered at two levels of abstraction. In the first place, we are interested in the *organizational* level. At this level we consider how organizations formally give shape to the role of the process owner. Secondly, we consider process ownership at the *individual* level: How do process owners really act, either within or perhaps beyond the formal limits of their role?

Since the concept of process ownership is well-entrenched in the managerial discourse without, however, an exact understanding of its specific aspects, we addressed our research question with a *descriptive* design. Two complementing data

collection methods were selected: a *survey*, which aims at gathering quantitative data, and two in-depth *case studies*, aimed at gaining a qualitative insight. A multi-method model of research like this one is not common in IS research, although the case for combining qualitative and quantitative research methods is strong [4]. In the application of both research methods the two concepts of interest are addressed, i.e. process ownership and BPM maturity (see Figure 1).



**Figure 1: Multi-method approach.**

In order to ensure comparable data was gathered in the research, a theoretical framework has been developed on the basis of literature on job (performance) analysis. The framework is based on Boyatzis' dynamic interaction model [1] and amended with BPM-related contextual factors to get insight into both the organizational implementation and individual fulfillment of process ownership. For more details, see Table 1.

**Table 1: Variables of the analysis framework.**

Organizational Environment	Organizational demands / actual fulfillment	Competences
Organizational demographics	Hierarchical position	Characteristics
Organizational strategy	Ownership hierarchy	Capacities
BPM drivers / strategy	Full-time / part-time	
BPM structure	Responsibilities	
BPM maturity	Authorities	
BPM governance	Tasks	

A further specification was made for the content-related aspects in the category 'organizational demands / actual fulfillment': responsibilities, authorities and tasks (see the second column in Table 1). Our review of the literature revealed two main *responsibilities*: responsibility (1) for process performance and (2) for process improvement. Also, the following *authorities* are taken into account: (1) decision-rights on e.g. process design [8], (2) establishing or distributing budget for realizing process goals and process improvement [8], (3) assigning capacity to e.g. process

improvement projects, and (4) access to management information. To apply a structural approach investigating process owners' *tasks*, the managerial practices from [22] were extended with tasks assigned by Mintzberg's to his 'figurehead' and 'entrepreneur' role [11].

### 3.1 Survey

The general purpose of a descriptive survey is to find out what situations, events, attitudes, or opinions are occurring in a population [13]. For this research, our interest is with a particular situation: the implementation of the process owner role in a specific organization. Because of the necessary precaution with limiting the size of a survey to minimize non-response, we only addressed process ownership at the *organizational* level in our survey. For the same reason, we did not use one of the instruments available to assess an organization's BPM maturity level, as they are rather extensive. Instead, we used De Bruin's *BPM structure* variable as a proxy for BPM maturity since it appears to provide a reasonable cluster to distinguish an organization's evolution with respect to BPM over time [3]. This variable distinguishes whether an organization carries out BPM initiatives either in an *ad hoc* fashion, in the form of projects, coordinated from a BPM team or centre of excellence, or within the setting of an enterprise-wide program.

Overall, the descriptive survey contained four sections. The first section contained a statement of confidentiality and anonymity (to encourage truthful responses and minimize non-response) and an explanation of important concepts, such as BPM and BPM maturity. The second section queried the respondent for several details, such as the name of the organization and its type of industry. The third section addressed the organization's type of BPM undertaking and structure, while the last section dealt with the organizational implementation of process ownership. The exact aspects addressed in the survey can be seen in the second column in Table 1.

The survey was distributed at three professional conferences on process management in The Netherlands during 2007 and 2008 and made available online to industry contacts of the authors. In total, approximately 130 individuals were invited to fill in the survey, which resulted in 56 complete responses. From these we filtered out the responses from consultancy firms. Their answers generally did not refer to a specific organization, which made them unreliable for our purposes. Also, we filtered out organizations without any BPM initiative. As a result, we arrived at 22 responses.

### 3.2 Case studies

In contrast to a survey, case studies provide the opportunity to get an in-depth, qualitative insight of the subject of study and allow for retaining the holistic and meaningful characteristics of real-life events. Following [4], case studies can aid in capturing the richness of organizational behavior. For this research project this means investigating both the *organizational* fulfillment of the process owner role and the *individual* fulfillment of process ownership in the case setting. The organizational

fulfillment is addressed similarly as in the survey, but as we recall from Figure 1 the individual fulfillment is only addressed in the case studies.

The methodology applied in the case studies follows the case study method as described by [21]. Potential case organizations were targeted via personal interaction at three professional conferences on process management in The Netherlands. Several criteria for participation were determined: (a) the organization needed to undertake some form of BPM initiative or program, (b) the organization needed to have process owners, and (c) the organization allowed for the application of our entire theoretical framework to ensure comparable data collection. From the three organizations willing to participate, two met all criteria; the study of these cases is further described in this paper. Note that since the exact approaches to BPM are of strategic value to both organizations, they are made anonymous in this paper.

Within the case studies, three sources of data were used: (1) documentation; (2) an online survey, and (3) semi-structured interviews. The desk research was primarily aimed at gaining insight into the organizational environment and the organizational fulfillment of the process owner role. The survey was applied as a first investigation of the individual fulfillment of the process owner role and for assessing the organization's level of BPM maturity. For triangulation purposes, the latter topics were also covered in the semi-structured interviews.

## 4 Results

### 4.1 Survey

With our descriptive survey we investigated the *organizational* implementation of the process owner role across various levels of BPM maturity. As the survey outcomes support the research of [14] – where it was found that organizations already progressed with BPM fulfill process ownership differently than those in the early stages of BPM – the outcomes are presented for each of these two groups separately. To this end, we combined responses from organizations at the two lowest levels of the BPM structure variable into an “early stage” group and the remaining organizations into a “progressed stage” group. Note that the number of responses did not allow for a further split-up into groups. Also note that the presented outcomes are the scores on the elements in the second column of Table 1. The following are the findings that are *independent* of the organizational level of BPM maturity:

- a) The vast majority (77%) of organizations with a BPM program assign process owners, implicating that this role is a common aspect in BPM.
- b) Three-quarters of the respondents report that their BPM program can best be described as either ‘ad hoc’ or ‘project-based’ – the two early stages of BPM maturity adoption – whereas one-quarter describes program as more progressed (BPM team / enterprise-wide). This points at a rather immature BPM landscape in The Netherlands.

**Table 2: Comparison of survey outcomes per level of BPM maturity**

BPM maturity level	Early Stage (n=16)	Progressed stage (n=6)
<b>Process owner assignment</b>		
Not assigned	31%	0%
Part-time occupation	69%	67%
Full-time occupation	0%	33%
<b>Organizational level</b>		
Ownership in the board	6%	50%
Ownership in staff	38%	33%
Ownership in line management	63%	50%
Process owners assigned on multiple levels (hierarchy)	25%	50%
<b>Responsibilities</b>		
Process performance	75%	67%
Process improvement	50%	67%
None of these responsibilities	6%	33%
<b>Authorities</b>		
Decision rights	63%	83%
Budget	38%	33%
Capacity	56%	33%
Access to management information	50%	50%

Comparing the survey outcomes of both groups, several differences come to light. In both groups, approximately two-thirds of the organizations *assign* process ownership as a part-time role. However, whereas the remaining one-third in the early stage group concerns organizations that have not assigned process owners at all, the remaining one-third in the progressed group has full-time process owners. This implies that progressed organizations recognize the added value of and necessity for process owners.

Comparing the organizational levels on which process owners operate, two differences can be distinguished. Firstly, only a quarter of the early stage organizations has process owners on multiple levels in the organization, versus half of the progressed organizations. This indicates that process ownership is more common and elaborate in progressed organizations as part of a process-based governance structure. Secondly, there is a big difference of in the assignment of process owners on a board-level in favor of the progressed organizations. This finding supports earlier research: It is in line with [3], where support was found for the importance of *executive ownership / commitment*. It also supports the research of [14], where it was found that process owners are more often positioned at the executive level in progressed organizations.

Only half of the early stage organizations report that process owners have a *responsibility* for process improvement versus two-third of the organizations in the second category. It seems that the progressed organizations have their business

processes under control and shift their focus towards process improvement. Another substantial difference concerning responsibilities is that one-third of the respondents in the progressed group indicates that process owners have a responsibility beyond process performance and process improvement vs. 6% in the early stage group. It is an open issue to what these responsibilities relate, but it would be highly interesting to investigate this further.

Regarding *authorities* that process owners are facilitated with, no connection with a difference in BPMM was found, which is a rather surprising outcome. Basically, process owners have similar a similar authority at both levels.

Comparing the *tasks* carried out by process owners on both BPMM levels (not shown in the table), it could be established that in the progressed group, the process owner role is extended with ‘external’ tasks such as ‘representing the process’ compared to the role in early stage organizations. Also, the task ‘initiating process improvement’ is much more often mentioned by respondents in the progressed group, which is in line with our earlier finding that process owners have a responsibility for process improvement in progressed organizations.

## 4.2 Case studies

While the survey outcomes had a focus on the organizational level, we like to recall that the case studies allowed for investigating both the *organizational* implementation of the process owner role and the *actual* fulfillment of the role at an individual level.

### Case A

Case organization A is a financial service provider primarily servicing small and medium enterprises. The organization established a BPM department, which indicates that their BPM initiative can be classified as ‘progressed’. The aim of the BPM department is to optimize all processes within the organization in order to increase the *control* and *level of standardization*, and to decrease *operational risk*. A year prior to our research, the BPM department implemented a BPM governance structure in one from its many ‘process chains’ as a pilot-test for the implementation of BPM within the business. Table 4 displays the organizational implementation of process ownership for this process chain, of which the primary process concerns the collection of money from cash-dispensers by customers. This is a intensively automated process, which strongly leans on the support from various involved departments. Considering the content of Table 4, it can be seen that process owners in case A are responsible for process performance and budget allocation (for process improvement). Since BPM governance is still in a pilot phase in this organization, all aspects concerning budgets only exist on paper. The process owner tasks are: enabling process design, coordinating process improvement, ensuring correct process measures (KPIs), and chairmanship of process chain meetings, where performance issues are addressed among others. The authorities that process owners have are (joint) decision making regarding process design and the determination of process requirements (KPIs).



**Table 3: Organizational fulfillment process ownership cases A and B**

Element	Case A	Case B
Hierarchical position	Line management (product manager)	Line manager (responsible for a part of the process)
Individual/team role	Individual role	Individual role
Ownership hierarchy	Limited to process owner and work process managers	Domain owner, process owner, process manager
Full-time / part-time	Part-time	Part-time
Responsibility	Process performance (on KPIs) Budget monitoring	Ensuring effective and efficient process design Ensuring compliance with legislation Ensuring synchronization with stakeholders Validating and approving process changes
Tasks	Enabling process design Translating strategy into KPIs Coordination / conduct of process improvement Chairmanship of process chain meetings Reporting to stakeholders	Translating strategy into process requirements Keeping process documentation up-to-date Assessing for the need for process improvement Communication with stakeholders
Authorities	Design process (within requirements of Marketing) Determine KPIs Allocating budget	Process design

The *individual* fulfillment of the process owner role differs substantially from the organizational fulfillment as described above. The tasks we found to be most important for the process owners are ‘monitoring process improvement’, ‘problem solving’ and ‘initiating process improvement’. Clearly, these tasks are in line with the formal responsibility for managing process performance. But as the process owner – as one of the very few in the entire organization – has gained the knowledge and complete overview of the entire process chain, this person has become a central contact point for all kinds of issues regarding the process chain. And because of the centralization of responsibilities to the process owner role, a start is being made with the development policies to the benefit of the entire chain in areas on which policies were lacking prior to the implementation of the BPM governance structure. For example, in the situation before the implementation of the BPM governance structure local branches could request the installation of a cash-dispenser from the IT department. In the current situation, such requests are assessed against a policy that maximizes overall organizational profit. Finally, the process owner carries out various ‘external’ tasks such as forming a contact point for all kind of process chain-related

issues, which do not follow from the formal description of the role. Summarizing, the actual process owner role can best be summarized as that of *process chain manager*.

### Case B

Case organization B is a maintenance, repair and overhaul service provider in the airline industry. The organization has established a BPM department which aims to *support* the business in reaching its goals by a *continuous optimization* of process, organization and information. One of the instruments of the BPM department in reaching their goals is the roll-out of an enterprise-wide BPM governance structure. The existence of a BPM-department and an enterprise-wide approach classifies this organization's BPM program as 'progressed'. The process domain under consideration in case B is the end-to-end process of servicing engines. The organizational implementation of process ownership can also be seen in Table 4. As the table shows, the *organizational* fulfillment of process owner role in case B contains aspects of process performance, process improvement, and process documentation. The process owner role is primarily assigned to line managers who are responsible for the performance and improvement of their *part* of the business process. This is odd for two reasons. In the first place, the idea of process owners is that it is a cross-functional role. Secondly, there is no distinction between the hierarchical manager and the process owner in this set-up. Therefore, it is questionable if this part of the organizational fulfillment of the role truly represents process ownership or whether this is a nominal indication only.

Regarding the *individual* fulfillment of process ownership, the process owners indicated that not much has changed by the implementation of the BPM governance structure. This is perhaps not surprising given the organizational fulfillment that was just discussed. Process owners report that their function has only been extended with designing the process and validating potential process changes, or in their own words with "keeping the process documentation up-to-date". The image on the actual fulfillment of process ownership that emerges here, is only a modest role resembling the one in [19], where BPM is approached from a knowledge management perspective. As the organization can be described as a 'Machine Bureaucracy', one of Mintzberg's organizational archetypes [12] which relies heavily on the standardization of rules, procedures and work processes, the process owner role in case B resembles an *administrative function* but not someone who has an end-to-end accountability for a process.

## 5 Discussion and conclusion

The first important insight from our research, in particular from our survey, is that process ownership is a role that seems to progress with an organization's level of BPM maturity. This coincides with an early insight from [14]. On the basis of our descriptive research, it is not possible to say whether this is intrinsically a good or a bad thing. Nonetheless, it seems sensible that organizations that want to move towards a higher level of BPM maturity should assign their process owners with the

task to look for process improvement opportunities *beyond* their regular operational duties in managing a process.

The second insight is that the fulfillment of the process owner role on the individual level can be very different from the organizational level. In other words, process owners do different things than what they are supposed to do. This insight follows most clearly from our case studies, where distinctive discrepancies were noted between the organizational and individual levels. It seems prudent that process ownership should be assigned to the best and most motivated people in an organization, as they may be expected to look for the maximal leverage they can get out this position. Our case study A clearly shows what such a 'soul of fire' can achieve beyond the formal duties that he or she is assigned with. Another suggestion we like to make is to clearly detach process ownership from conventional managerial roles. Our case study B shows the risk that otherwise process ownership will not be seen as something new and therefore not as something of value. In this particular case study, process owners become mere "process clerks".

The scientific contribution of this paper is that it gives an empirical and contemporary insight into the fulfillment of the process ownership role. Our work provides an indication for the importance of (executive) process ownership, which justifies further research in this area. As our research was limited to describing how process ownership is fulfilled in practice, future research may aim to explore *what* makes the fulfillment of process ownership and BPM governance successful / effective across various levels of BPM maturity.

The main limitations surrounding the survey are related to the respondents, the number of responses, and the survey content. The respondents are not sampled from a completely random group, as they represent attendants to professional BPM conferences as well as contacts from our industrial network. This group gives our research a bias towards frontrunners in this field. Also, there is a clear bias towards the regional and cultural area of The Netherlands. Finally, the number of responses that was usable is limited to 22. Limitations surrounding the conduct of the case studies relate mainly to the generalization of its outcomes. Both cases studies concern organizations that are progressed with respect to their BPM maturity, so the noted differences between the organizational and individual level of process ownership should be clearly seen in this context.

Building on these preliminary insights, the next step is to broaden the empirical basis for this research both in numbers of respondents and in other geographical and cultural zones. If we rely on the assumption that increasing BPM maturity will lead to improved effectiveness cf. [6], the connection between process ownership fulfillment and BPM maturity should then be investigated in more detail. In the end, we would hope for sufficient insights and evidence to advice organizations to become truly process-oriented, to the merit of all their stakeholders.

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