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Abstract

In very recent times, the pressing need to compete on the basis of process-related knowledge rather than process automation has expanded the field of Business Process Management (BPM) to include knowledge intensive business processes (BP). This paper focuses on one of BPM's core aspects – BP ownership, aiming to explore its main characteristics in the context of knowledge-intensive BPs. Using a combined theoretical lens of the process/knowledge continuum and boundary spanning, this research analyses an interesting case of BP ownership found in a real-life healthcare organization. Our results show that knowledge-intensive BPs, at least in the case organization, do require a different type of BP ownership than the one found in the BPM literature published over the past two decades. Rather than being focused on management and control, ownership of knowledge-intensive BPs is found to involve knowledge sharing, boundary-spanning, shared responsibility and grass-root leadership.

1. Introduction

From its earlier focus on process automation and workflow systems, Business Process Management (BPM) is rapidly evolving into the management philosophy of the 21st century [1]. “BPM is a structured approach of employing methods, policies, metrics, management practices, and software tools to coordinate and continuously optimize an organization’s activities and processes.” [2]

After more than two decades of modern BPM, business process (BP) automation of routine transactional processes is becoming ubiquitous thus leading to a similar level of BP efficiency across competing organizations [3]. Indeed, a very recent industry survey confirms “that older process automation approaches based on mass production concepts are no longer adequate in an era of people-driven processes” [4, pg. 2]. As simple decision-making is increasingly automated via rule engines, there are new opportunities for a wider-range of process participants to add value to their processes, mainly in the form of experiential process-related knowledge. Consequently, the most important BPs for organizations today are recognized to involve knowledge work [5]. They are increasingly known as knowledge-intensive BPs [6],[7],[8],[9].

However, “while there appears to be an intuitive awareness of processes that are more knowledge intensive than others, the characteristics that constitute knowledge intensity have not been well documented in the research literature” [7, p. 33]. It is also important to acknowledge that most jobs and work situations today do require some degree of knowledge, even simple ones such selling tickets or driving [6].

As a starting point, this research adopts a much more complex view of knowledge work, as proposed by Davenport [6]. In this context, knowledge work involves complex situational decision-making, is inherently emergent, and rarely, if ever, standard to the point that it becomes routine. [6, pp. 12]. Therefore, BPs involving knowledge work of this nature, are considered to be knowledge-intensive in this research.

These processes are very different from procedural work that could be easily described by a standard “step-by-step” process. “Specifying the detailed steps and flow of knowledge-intensive processes is less valuable and more difficult than for other types of work. …Knowledge workers don’t like to be told what to do, and they also don’t like to see their jobs reduced to a series of boxes and arrows” [6, p.17].

Knowledge-intensive processes are seldom outsourced and result in higher value outcomes for the organisation, but their value is not easily measured [5]. Due to their complexity, they require knowledge sharing and collaboration that cannot be captured by BP models.
While the related research is still emerging [7], [8] and [9], it is becoming clear that knowledge-intensive BPs, even the very concept of process-related knowledge, require us to critically re-examine the key BPM concepts such as BP lifecycle, process improvement, process ownership – all of which were originally developed for manufacturing organizations.

This paper focuses on one of these key BPM concepts – *BP ownership*. It aims to examine its nature in the context of knowledge-intensive BPs, not only how it is implemented, but more fundamentally, what it means for knowledge-workers to own a knowledge-intensive BP. We focus on the main research question:

“What does BP ownership mean in the context of a knowledge-intensive BP?”

This is explored through these sub-questions:

- Who are the process owners?
- What are their main responsibilities?
- How do they span knowledge boundaries? and
- Do knowledge-intensive BPs change the nature of BP ownership, as described in the current BPM literature? In which ways?

The paper describes a very complex example of a customer-facing knowledge-intensive BP found in the domain of healthcare and examines the nature of *process ownership* in this context. Through an exploratory case study, conducted in a real organisation, named “SuperClinic”, this research aims to investigate BP ownership, in particular its relation to process-related knowledge work.

2. Related work

2.1. Knowledge-intensive BPs

While in the past the term “process” used to be a synonym for a step-by-step procedure or an equally structured process model, knowledge-intensive BPs require us to reconsider this fundamental concept, starting from its meaning. “Sometimes the assumption is made that the concept of process and process management only apply to highly structured, transactional work, such as order fulfilment, procurement, customer service, and the like. Nothing could be further from the truth…Process should not be misinterpreted as a synonym for routinization or automation, reducing creative work to simplistic procedures” [10, pp.11].

In spite of their importance, these complex processes “haven’t really been the focus of most organizations – improving administrative and operational processes has been easier – but they must be in the future” [5].

Even when considered for improvement, these BPs are often subjected to methods and approaches originally developed for manufacturing organizations, structured around process models. “It is all too common for organizations to interpret “process” as “flow diagram”. It specifies ‘first you do this, and then you do this’. Such an engineering orientation to processes breaks down work into a series of sequential steps, and this is the aspect of process management that knowledge workers like least…It may be necessary in some cases to engineer the process flow, but it should not be the centerpiece of a knowledge work improvement initiative.” [6].

Related research shows that knowledge-intensive BPs require new improvement methods focused on knowledge processes [9], [11]. As El Sawy and Josefek pointed out, knowledge management can be thought of as “the second wave of BP Improvement” [11].

Finally, rather than delegated to process specialists, the ongoing improvement of knowledge-intensive BPs is best left to process participants themselves, because of their experiential knowledge that made these processes knowledge-intensive in the first place [9].

These characteristics of knowledge-intensive BPs create very unique challenges for process management, including process ownership that this research aims to investigate.

2.2. BP ownership

Process ownership is typically considered under the umbrella of BPM governance. Thus, “governance covers roles (e.g. process owner, process manager, and process analysts), responsibilities, duties and decision-making processes” [12]. Process ownership is one of the critical enablers of a high-performance process, in terms of its ability to operate on a sustained basis [10].

There seems to be a wide agreement on the types of organizational BPs that this role owns. “Process owners own dedicated core processes e.g. generic processes like sales order processes, procurement processes and also industry core competences, such as retail lean processes, central credit processes, etc.” [2]. Similarly, each critical business process needs to have a formally assigned owner [13].

The role of BP owner is delegated and could be implemented in different ways, including a single powerful owner, a pairing of more junior owner with a senior part-time process executive or a different BP owner for every business unit and geography [14]. “Selecting the best form is a function of strategy, process maturity and urgency” [14].

Furthermore, there is no clear standard job description of responsibilities of a BP owner [14]. Their typical responsibilities and activities are spread across the whole lifecycle of their allocated processes. For example, they are expected to set the direction and objectives of the process and determine capability
requirements [13]. They are even responsible for operating performance as well as the ongoing improvement of their processes [2], [15], [16]. They could be also the enforcers of process standards, especially the global ones [15]. Ultimately, this role should be the key decision maker for all process-related decisions within their allocated process [13]. Consequently, it is expected that BP owners should be performing BP management duties (i.e. the planning, managing and supporting of performance) for a given process. Yet, the most common duties found in the current BPM practice include documenting the process and the mere collecting and reporting of process data (as opposed to managerial review and decision-making) [15]. Assignment of BP ownership to top management remains one of the key success factors for BPM [16], [17].

Irrespective of their formal position, process ownership involves boundary management, communication, collaboration and advocacy [2], [14]. In other words, BP owners are required to become effective “boundary spanners”.

The concept of BP Ownership has been recently criticized as “uni-dimensional” and “proving to be too simplistic given that the management and governance of processes are far more complex than that” [18]. The term owner implies the existence of “non-owners” i.e. process participants and operational managers, often leading to resistance and conflict of motivational alignment [19]. “Ownership” connotes property rights, which more often than not confuses organizations trying to strengthen their processes, and process performers just are not vassals” [14, pg.1]. Hung [19] argues that every employee should have responsibility for managing and controlling their work.

Finally, the main emphasis of this role remains on BP-related management and control. However, as previously confirmed by [3], [5] and [6], these are the aspects of BPM that do not easily apply to knowledge work. This in turn opens an important research gap related to BP ownership in the context of knowledge-intensive BPs, that our research focuses on.

3. Foundation theories

3.1. Process-related knowledge

While process-related knowledge could be defined in many different ways, as a starting point, this paper adopts a classification of BPs along the process/knowledge continuum, as depicted by Figure 1. This framework was originally introduced by Crandall, Klein, and Hoffman [20] and later adopted by Harmon [21] in the BPM context. As shown, simple procedural BPs are guided by organizational policies and involve highly structured decisions. At the other end of the scale are highly complex processes involving decisions made by experts. Here, all decision parameters as well as the outputs of these decisions cannot be captured in advance and turned into detailed process models.

These complex processes require a high level of domain expertise that cannot be fully externalized and remain within the domain of tacit knowledge [22]. “These are the processes that – given current technologies – are impossible to automate in a cost effective manner. In other words, complex processes challenge our ability to define the specific procedures involved” [21]. Between these two categories are more complex processes performed by knowledge workers that still require experiential knowledge to make process-related decisions.

When placed in the context of the process/knowledge continuum, it is possible to observe that the traditional BPM has been predominantly focused on highly structured, highly repetitive procedural BPs. This is also where BP ownership has been considered so far. Knowledge-intensive BPs considered in this research involve knowledge and expert work i.e. more complex and very complex processes as shown by Figure 1.

3.2. Boundary spanning

“A company creates value for customer and shareholders via the effectiveness and efficiency of activities or work that flows across traditional organization boundaries – often referred to as the firms’ complex cross-functional business processes” [23]. Furthermore, “some of the largest opportunities for improvement are found at cross-functional handoffs” [12]. The existence of the BP owner role is primarily driven by the fact that the functional boundaries require ownership i.e. responsibility [15].

Thus, BP owners are expected to span and own functional boundaries. Even more, based on the previous discussion it is possible to argue that their work also span boundaries between different hierarchical levels (e.g. operational and strategic). As end-to-end core processes create value for external customers, we posit that in the case of customer-facing processes, BP owners should also be, to some extent, spanning the boundaries between the organization and its environment, in this case customers.

These boundary-spanning characteristics of BP owner and the stated objectives of this research have motivated us to adopt the theory of boundary spanning ([24], [25], [26], [27], [28], [29]), as a relevant foundation for the second theoretical lens used in this research.
Furthermore, boundary spanning has long been deemed as an effective strategy for knowledge transfer. “Effectively managing knowledge across the various types of boundaries in an organization is what drives competitive advantage.” [24]. However, functional boundaries do create knowledge boundaries. “The irony is that these knowledge boundaries are not only a critical challenge, but also a perpetual necessity because much of what organizations produce has a foundation in the specialization of different kinds of knowledge” [30]. Connections across boundaries can be made in a number of ways, for example through boundary objects and brokering [30], [31].

Even though boundary spanning has been researched in the IS context, BPM-related research has not, to our knowledge, examined the boundary-spanning activities of a BP owner, in the context of knowledge-intensive BPs. We posit that this perspective will help us to gain a better understanding of BP ownership, in relation to knowledge work.

4. Research context

The case organization, here named “SuperClinic” has been one of the leading providers of breast cancer screening and diagnostic services in Australia for more than 30 years. SuperClinic is a daily clinic, currently offering three main types of services, called “Clinics”. They could be briefly described as follows:

- **Screening Clinic** offers screening services to women without any suspicious symptoms.
- **Risk Assessment Clinic** offers more specialized screening to women with a potentially increased risk of developing breast cancer and who need close observation, due to their family history or other medical factors known to increase the risk.
- **Diagnostic Clinic** offers a diagnostic assessment to determine the cause of a suspicious change that may be diagnosed as breast cancer.

All incoming patients are streamlined into the most appropriate Clinic, based on the referrals provided by their general practitioner. However, if required they may be “reallocated” to a different Clinic while in the process, on the basis of their progressive results (e.g. from the Screening to Diagnostic Clinic).

After being admitted to the most appropriate initial clinic, each patient is assessed by a team of co-located medical experts that typically includes: a Radiologist, a Breast Physician and/or Surgeon, Radiographer(s), Sonographer(s) and a Clinic Nurse. The main objective of each Clinic is to assess a patient and if present, diagnose breast cancer within a single day.

At the time this team-based approach was introduced, it represented a significant innovation in health-care processes as coordination, communication and collaboration patterns among all team members and their patients were significantly improved. However, these days, this approach is no longer considered to be as innovative, as there are other providers of co-located healthcare services.

When considered from the BPM perspective, it is possible to confirm that the three Clinics (Screening, Risk Assessment and Diagnostic) could be interpreted as three different variants of a customer-facing knowledge-intensive BP, here named “Provision of Screening and Diagnostic Service”. All three are considered to be knowledge-intensive, as defined in this research.
5. Research method

The case organization was selected on the basis of its leadership position in the author’s geographical region, its complex knowledge-intensive BPs, advanced level of process automation, as well as their caring and innovative approach to patient care. Given the emergent nature of these processes and process-related knowledge involved, we choose an exploratory case study research [32], as the most appropriate research method.

The chosen example of knowledge-intensive BPs was investigated from two different perspectives: the case organization’s and patients’. This in turn required a combination of data collection methods, as follows.

The primary data collection involved semi-structured interviews with all types of process participants involved in all three variants of the chosen BPs. They included the following process-related roles: Receptionist, Radiologist, Breast Physician /Surgeon, Radiographer, Sonographer and a Clinic Nurse as well as their manager who was interviewed via e-mail and phone, due to limited availability. Each interview took about 1h. The interview questions were exploratory, retrospective in nature, designed around research sub-questions, stated earlier in the paper.

In addition to her formal interview, the clinical nurse was also observed in her boundary-spanner role between clinical tasks (as described later in the paper). Observations took place in three visits, each half-day long. The final observation was followed by in-depth discussion with the clinical nurse with a main objective to better understand and confirm the findings.

Additional data were collected from their public web site as well as process-related documents given to patients at the time of admission. These data sources enabled the researcher to gain an insight into the chosen process from the organizational perspective.

The researcher also sought to understand the patient perspective, as this was very important to fully comprehend both sides of this process i.e. inside and outside of process boundary, especially the interactions that occur at the boundary between the two. However, due to the highly sensitive nature of these processes, it was not possible to approach the patients, interview them directly or observe their individual processes. Furthermore, patients’ data held by Clinic were not accessed and used in any way.

However, data related to the patient perspective were still collected in two different ways. The first one included collection and analysis of the secondary data including publicly available customer feedback, posted on the company’s web site. Even though this feedback was primarily posted for marketing purposes, it was still very useful as it enabled the researcher to infer and interpret different aspects of “BP-related value-add”, as perceived by patients.

The second source of patient data included personal insights and observations, collected by the researcher while going through the process (Screening Clinic) as a customer. This quite unique perspective enabled the researcher to observe different aspects of the process, from “inside-out” both as a customer and as an experienced BPM professional, and in this way get important insights. However, this experience did not involve any formal research data collection, just insights and observations recorded after the experience. These were then used to fine-tune and confirm research questions, with research interviews being conducted in separate research visits at the later date. These insights were also found to be very valuable during the interviews, leading to a better sharing of process-related contextual knowledge between the process participants and the researcher.

After all qualitative data were collected we used thematic analysis to identify common patterns & themes related to BP ownership [33], followed by deductive and inductive coding [34]. More precisely, the deductive coding was used to classify the data based on the key concepts identified from the stated research questions and inductive coding to identify sub-categories. Coding and analysis were supported by a qualitative analysis tool (NVivo).

To ensure that the interpretations were correct for the given context, the researcher sought a feedback and when required the additional information. This in turn enabled us to corroborate different data sources to better understand, what was in essence, highly contextual knowledge and would be very hard to capture only by observations.

Like all interpretive studies, this study sought a subjective understanding of the conditions, practices and consequences of social action as expressed by the stakeholders and facilitators in their particular social context [35]. However, as data collection and analysis were related to the process rather than the medical aspect of their services, the researcher was in the position to understand and interpret the collected data from the BPM perspective.

6. Research findings

6.1. Knowledge-intensive BPs at SuperClinic

Our first task was to analyze the chosen process, “Provision of Screening and Diagnostic Service”, in order to gain a better understanding of the process-related knowledge as well as different types of roles involved, including those of process owners.
To achieve this objective we adopted the previously introduced framework of process/knowledge continuum and modified it to represent a continuum of process tasks. We then proceeded to map the chosen knowledge-intensive process with the outcome shown by Figure 2.

To some extent, all three Clinics follow the same coordination pattern, with the Diagnostic and Risk assessment Clinics likely to involve more diagnostic tasks than the Screening Clinic.

Also as shown by Figure 2, all three variants include the same procedural tasks: “Appointment Booking”, “Patient Admission” and “Patient Discharge”. These are administrative tasks performed by the receptionists. They are required to collect relevant data and provide enough information to orient the patient to the process, including its medical and administrative aspects (payment method, scheduled fees and health fund refunds etc.). They are also there to answer any initial question a patient might have at the point of admission.

Patients are also given a very simple description of the overall process. The main objective is to “remove the unknown” as much as possible and at least as the process goes. Similar information is also posted on their web site. At the time of its introduction, this online posting was also considered to be innovative and, as intended, very helpful to their patients, as confirmed by the collected feedback.

Compared to the procedural tasks, the “Initial scheduling” task is more complex with regards to the required knowledge. This task is completed by a clinical nurse typically a day ahead, as all bookings need to be completed by that stage. This task is computer-supported but could be still classified as knowledge task. This is because its completion takes into account typical pathways for different Clinics, previous experience with different types of patients, (e.g. first time patients may require a longer appointment with a radiographer), doctors’ referrals, patient’s data collected during their previous visits as well as any other information communicated by the patient when booking their appointment.

Looking from the BPM perspective, it is possible to confirm that high-level coordination patterns describing typical “pathways” for three different clinics are known in advance to a very large extent, based on many years of accumulated experience in treating different types of patients. These pathways are used for the initial scheduling of staff and patients to ensure that the patient flow is as smooth as possible, medical equipment and specialists’ time are best used - all while aiming to achieve a minimum waiting times for the patients. However, the initial schedule is flexible and could be changed, as the patient progresses through their initially allocated Clinic and more data gets collected within their process instance.

All other tasks are classified as expert tasks. To acknowledge the fact that they are only initially (loosely) scheduled, while the actual schedule emerges during process execution, these tasks are depicted on Figure 2 without any interconnecting control flows.

Even though expert and knowledge tasks are performed by the assigned roles (as indicated by Figure 2) and tasks are scheduled to appear in a certain order, work is not performed in a workflow like “hand-over” manner from one task to another. Instead, the team adopts a collaborative approach working together on each allocated case, in addition to being responsible for their individual allocated tasks.

The actual tasks are coordinated in two ways, both enabled by technology. First of all, the team is using a
simple, yet flexible workflow system that allows new tasks to be easily added or the existing tasks and flows changed to accommodate any ad-hoc changes of each process instance, as required for individual patients. Even more important is the team’s access to shared repository of each patient’s progressive records that gets updated with completion of each task. The same repository also stores digital outputs generated by the medical equipment (such as x-ray or ultra-sound).

The shared repository eliminates the need for “hand-overs” from one specialist to another with specialists having to rely on information provided by another specialist or communicated by the patient. In addition to improving process efficiencies (e.g. x-rays films are no longer developed), the shared repository also reduces the risk of possible errors due to the inaccurate information, being entered by different specialists or communicated by a patient.

Looking from the patient perspective, this team-based approach is confirmed to significantly reduce very stressful waiting time between appointments, eliminating the need for multiple return visits to various specialists.

Finally, all required tests are completed, evaluated and reported while the patient is still at the clinic. The average time to complete the overall process ranges from two to five hours, depending on the results of each assessment and the overall complexity of each case. As soon as each process is completed the patient is given the result, while still at the clinic.

6.2. BP ownership

The initial investigation of the “Provision of Screening and Diagnostic Service” process confirmed that this knowledge-intensive process does not have a formally assigned and delegated BP owner. However, in spite of the absence of any formal role, one could argue that the ownership is shared by the whole team, given their team approach to each case. This also means that there are no formal boundaries between functional units, or in this case, their specialist tasks. Therefore, in addition to being responsible for their individual highly specialized tasks, each expert or knowledge worker also assumed a boundary spanner role working across specialist areas. To a large extent, their boundary spanning is facilitated by a shared boundary object in this case the shared repository of patients’ progressive record. This is complemented by their ad-hoc face-to-face conversations or, if needed, shared tasks while each process instance is in progress.

However, further analysis of the collected data, in particular related to interviewees’ “collective history” of various innovations at the clinic and their subsequent effects on their roles and responsibilities, revealed a very interesting and quite unique instance of assumed BP ownership, as follows.

After reaching a very high level of automation, the process support became more and more ubiquitous to their work. In other words, patients came to expect very efficient processes and so did the staff. This in turn created the need, but also opened a space for staff to continue to innovate, but in a different way.

Gradually team members started implementing small-scale innovations in patient care and all in the context of their core knowledge-intensive BP. One of them resulted in a new type of BP ownership reported here.

More precisely, while working as one of the team members in charge of her own assigned task, senior clinical nurse (here named) Sue perceived the need to make the waiting time between individual tasks less stressful for the patients. In other words, while individual specialists took excellent care of every single patient within their own allocated process tasks, Sue noticed that the time spent waiting between different tasks, regardless of its duration was always stressful for the patient, and if longer than expected, was interpreted as a sign that something was wrong. But on the other hand, the inevitable waiting time could be also used to in Sue’s words “make a difference” i.e. offer patient care of a different kind.

So, in addition to her own allocated task, Sue gradually started inventing, implementing and evaluating small-scale innovations, seeking feedback from the other team members and when appropriate from the patients themselves. Gradually, this assumed, self-created role became a new type process-level role, with many aspects of BP ownership, but of a different kind, compared to the traditional ownership as previously reported.

For example, in this role Sue aims to provide additional information and care to patients at the process level i.e. between or even within tasks. She carefully observes and even preempt the type of support, information or even process modification that are likely to be needed for each patient currently at the clinic, based on their progressive results, emotional state, needs and preferences for different type of information and in-process support. So, in addition to her allocated task, Sue gradually assumed the role of **human-interface** for each process instance.

When analyzed from the boundary-spanning lens, it is possible to observe that Sue’s process-level role enabled her to cross the boundary between customer’s experience of the process (“the BP’s outside world”) and the company’s execution of the process (“the BP’s inside world”). Patient’s progressive process instance became their shared boundary object and created the context for **knowledge sharing**.
Furthermore, Sue’s boundary spanning has resulted in a number of outcomes. First of all, it enabled her to open, what used to be a “black box” of BP for the patient. In Sue’s words, this made the process more effective, and most importantly, more humane.

Sue’s boundary spanning efforts have also resulted in process itself being changed in terms of its structure and coordination patterns. For example, Sue’s process-level role enables her to change the scheduled order of different tasks (in consultation with the allocated specialists), reallocate tasks to different specialists to better meet patient needs and expectations (even taking into account their personality), as well as to create additional tasks, such as counseling, preparation for the next task and so on.

Equally interesting is the third effect of boundary spanning on Sue’s original role. Over time her efforts resulted in her role being changed from the task to the process level and closer to the “boundary” she was spanning. This is depicted by Figure 3. As shown, Sue’s process level role now combines the aspects of knowledge and expert work, the later characterized by her growing experiential knowledge gained through boundary spanning. As such it is very different from her original task-level role of a senior clinical nurse, as depicted by Figure 2.

The ongoing feedback by staff and patients to the clinic has confirmed that Sue’s boundary spanning efforts have added value to their overall process on both side of the process boundary. Not only in terms of overall process effectiveness, but also in terms of innovative patient care. This in turn contributed to the SuperClinic’s leadership position. In fact, on the basis of the received feedback from staff and patients, management decided to formally change Sue’s role to the process-level. Even more, they decided to employ a small team of clinical nurses, trained and lead by Sue to continue to provide the process-level support.

At the time of writing Sue has two team members and all three of them are working very closely together, each assuming the ownership of different cases and looking after their allocated patients. Their work continues to be based on the reflection-in-action approach with an added value of collaborative insight and knowledge (idea) sharing among them. For example, different observations and possible responses are shared and discussed on-the-fly throughout the day, but also during informal team meetings, typically held at the end of each day. Their approach to sharing of experiential knowledge would be best described as “story telling” and shadowing, especially with new team members.

Their continuous boundary spanning effort through small-scale innovations could be seen as continuous improvement of their core customer-facing knowledge intensive process. While this organization and their management acknowledge that it is very hard to translate the immediate effects of these innovations into hard dollars, the overall approach to ongoing improvement has been perceived as one of SuperClinic’s key differentiators, judging by the increased number of patients and their subsequent positive comments and feedback.

When looking from the BPM perspective, it is possible to argue that Sue’s process-level role does corresponds to a new type of process owner, mainly because of her assumed process leadership, process-level role and boundary spanning characteristics. However, we also argue that this type of BP ownership is significantly different from the traditional one, as discussed in the previously cited BPM literature. The following section summarizes the main characteristics of this new type of BP ownership.
7. Discussion

The outcome of our research confirms and extends previous research by Hung [19] showing that in addition to taking responsibility for their own task, knowledge workers took the shared responsibility for the overall process. In fact, even before the emergence of Sue’s process-level role, process ownership was shared.

Furthermore, Sue’s new role also added another dimension to process ownership. Rather than delegated, her role was assumed through “grass-root” leadership. However, this was possible in an environment best described by two characteristics: “our organizational culture that supports innovative thinking” and “our shared values resulting in shared commitment to excellence in patient care”, as reported by the study participants.

Sue’s role was not a management role, as it is a preferred case with “traditional” process owners, as argued by [15] and [16]. Yet, she was able to influence the other more senior process participants who accepted her leadership, because it also helped them to achieve their overall shared goals. This influence is best demonstrated by Sue’s ability to change process flow and even re-assign process tasks to different specialists. “Having someone who can oversee the overall process makes our individual tasks better in terms of our individual and collective contribution to patient care” < a team member >.

Also looking from the BPM perspective, the main focus of process ownership was not on “management and control”. Rather, it was shared responsibility for and ownership of the process, with boundary spanning as one of their key enablers.

Sue’s role also actively contributed to knowledge sharing across different tasks within the same process instance, as well as across the boundary between the external and internal “worlds” of the process.

More importantly, as Carlile [24] pointed out, “effectively managing knowledge across various types of boundaries in an organization is what drives competitive advantage”. This was confirmed in the case organization where the effective management of the process boundary between the patient and the process participants was a major contributing factor to SuperClinic’s competitive advantage.

Finally, as previously stated boundary spanners were originally defined as those who operate at the periphery of an organization [27]. In this case Sue’s boundary spanning activities although conducted at the organization’s external boundary, were not conducted at the periphery, but at the very core of customer-facing activities. Most importantly, through this new type of process ownership, Sue became a human-face for the overall process, thus adding a new aspect to process ownership, not previously discussed in the BPM literature.

8. Conclusions and limitations

The concept of BP ownership represents one of the core elements of BPM ([2], [10], [12], [18], [21]). Inspired by the identified research gap related to “BP ownership” in the knowledge-intensive BPs, this research aims to gain a better understanding of this core BPM concept. The paper describes an exploratory case study conducted in a real-life healthcare organization in the context of their complex customer-facing knowledge-intensive BPs.

Our research outcomes show that in the case organization, process ownership was found to be very different from the one described by the mainstream BPM literature. Rather than focusing on management and control, the key aspects of process ownership included knowledge sharing, boundary-spanning, shared responsibility and grass-root leadership. While these findings may not be new in other research areas, such as participatory design, agile and autonomous teamwork, they are certainly new with respect to BP Ownership, as confirmed by the previous literature review.

However, this research is still limited to a single case. Also, research findings are made in the context of an organization that is considered to be the leader of patient care in this domain, in the author’s geographical region. Therefore, one could argue that the chosen organization is not a typical case. While readily acknowledging this important research limitation, we argue that these exemplary cases are very important for the future BPM-related research and practice as they represent the so-called “positive deviants” [36]. They are needed to illustrate new opportunities and inspire new thinking that is expected to lead to new research questions. Further research will involve more case studies of complex knowledge-intensive BPs in different industry sectors from different perspectives, including process ownership.

9. References


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