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BPM2TPM: THE KNOWLEDGE TRANSFER FROM BUSINESS PROCESS TO TOUCHPOINT MANAGEMENT

Research in Progress

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Abstract

Customer interactions are changing in the digital age with implications on the digital enterprise. The predominant channel-based thinking is superseded by touchpoint-based thinking, which entails a more granular perspective on each customer contact regardless of the communication channel. Interestingly, there exists an analogy between this development and the dissemination of the process-oriented enterprise over the function-oriented enterprise. This position paper builds on this circumstance and argues for the knowledge transfer from the mature Business Process Management (BPM) domain to the nascent Touchpoint Management (TPM) domain. To substantiate this idea, a theoretical framework is proposed. It is illustrating methods that are deemed useful for TPM in the form of four propositions, as well as it clarifies the process of knowledge transfer between BPM and TPM through a research design.

Keywords: Business Process Management, Touchpoint Management, Knowledge Transfer.

1 The Analogy between Processes and Touchpoints

Interactions between customer and company are changing in the digital age. The predominant channel-based thinking is replaced by touchpoint-based thinking through the Omni-Channel approach (Homburg, Jozić and Kuehnl, 2017; Larke, Kilgour and O’Connor, 2018) which aims at a seamless customer experience regardless of the channel (Mirsch, Lehrer and Jung, 2016). Key to this ambitious goal is the dedicated management of the company’s touchpoints which enables a more integrated interaction between company and customer than isolated channel management (Verhoef, Kannan and Inman, 2015). Here, Touchpoint Management is seen as the successor of channel management and concerned with the holistic organization of touchpoints (Dhebar, 2013).

While the concept of touchpoints is used in marketing, especially in the field of Customer Experience Management (Homburg, Jozić and Kuehnl, 2017) and Integrated Marketing Communications (Duncan and Moriarty, 2006), the use of the concept from an IT perspective is still at the outset. However, the role of IT in today’s customer interactions is critical and will become even more important in the future through the immersive influence of the digitalization. Given the interdisciplinary role of IS research, exploring the use of the touchpoint concept in the digital enterprise falls under its area of competence. The resulting question is how can IS contribute to this matter? One optional avenue of research would be the knowledge transfer from Business Process Management (BPM) to Touchpoint Management (TPM). Reason for this is that there exists a similarity between the process concept – a landmark in IS research which revolutionized enterprise modeling (Schneer, 1992; Hammer, Champy and Zhao, 1993) – and the touchpoint concept. The change from a function-oriented organization to a process-oriented organization (Becker and Kahn, 2003) can be used as an analogy: For BPM a function-oriented organization fostered the local optimization of its different functional areas. Due to this, the overall context of the business fell short. The costs of coordination between the different areas rose. To promote the business in its entirety, the function-crossing processes were put in focus instead of the functions. For TPM the change from channel-based thinking to touchpoint-based thinking is a
similar phenomenon. Just as the function-oriented organizations, channels (i.e. media of communication like email or the retail outlet) were in focus of marketing communications for a long time. Silo thinking lead to the described local optimization and hampered integrated communication to the customer (Manser Payne, Peltier and Barger, 2017). With the rise of multi- and cross-channel (Verhoef, Kannan and Inman, 2015) approaches, the borders between channels were softened, but only fought symptoms not the rooting structural problem. The recent Omni-Channel approach (Beck and Rygl, 2015) aims to tear down the walls in favor of a single, channel-crossing communication medium with the customer. In consequence, the focus moves from channel-based thinking to the different distinct interactions with the customer: the touchpoints. Thus, the functional orientation has an analogy to the channel orientation as well as the process orientation has an analogy to the touchpoint orientation.

In addition to that, there are more similarities: The touchpoint – like the process – features an enduring (i.e. static, structural) and perduing (i.e. time-related, occurring) perspective. Like process models for documentation (described in e.g. the BPMN) and process instances, the touchpoint can also be seen as a structural interface to the customer as well as the concrete instance (event) of communication to a customer. Furthermore, the focus on the customer is also highlighted in the process concept by its end-to-end view (i.e. starting or ending at the customer) (Hammer, Champy and Zhao, 1993), which assures linkage between the different activities in the organization (Lee and Dale, 1998). This can be transferred to the touchpoint concept as well, as touchpoints consider the individual customer and the perduing perspective enables an end-to-end view through the customer’s journey. Lastly, touchpoints and processes share the property of intangibility.

Given these similarities, we argue that the nascent domain of TPM can benefit from the more mature BPM by transferring the knowledge from BPM to TPM. In particular, we propose the methods of BPM can be applied in TPM. Therefore, the aim of this position paper is to propose a theoretical framework for knowledge transfer to link BPM and TPM. To develop this framework, the remainder of this paper is structured as follows: After introducing both domains in chapter 2, chapter 3 illustrates the a priori theoretical framework including four propositions for method transfer as well as a corresponding research design. The article concludes with a short outlook in chapter 4.

2 Theoretical Background

In the following, we describe the two disciplines which are fundamental in this work. First, we clarify their main idea. Second, we shortly present their history. Thirdly, we elaborate on their methods.

2.1 Business Process Management

BPM is “the art and science of overseeing how work is performed in an organization to ensure consistent outcomes and to take advantage of improvement opportunities” (Dumas et al., 2018, p. 1) and is seen as a holistic management approach (Rosemann and vom Brocke, 2010). A process itself can be defined as a “self-contained time-logical sequence of activities that work on a business relevant object” (Becker and Kahn, 2003, p. 6).

BPM has fundamentally changed the way to model enterprises (van der Aalst, 2012). It originates from three traditions (Harmon, 2015) and each of which has shaped the understanding of the discipline we have today. First, the quality control movement lead to process thinking especially in the production e.g. by organizing and optimizing the assembly of automobiles. Six Sigma (Conger, 2015) is one methodology in this area, which combines the use of statistical techniques with process analysis. The process orientation of the ISO-9001 is a recent example of this movement. Second, the management tradition of BPM emphasized the overall performance of the organization in contrast to single processes e.g. through the value chain (Porter, 1985). From this end, process frameworks or reference models (e.g. Becker and Schütte, 2004; APICS, 2015) entered the stage. Third and most recent, the information technology (IT) tradition highlighted the automation of processes. By bolstering the role of software, ERP, CRM and workflow systems emerged in addition to improved communication between business and IT (Scheer, 1992). Despite these achievements, failed movements like business process
reengineering (BPR) (Davenport, 1993; Hammer, Champy and Zhao, 1993) also belong to the evolution of BPM. Its over-radicalism can be seen as a reason for the failure (Dumas et al., 2018) which is incorporated as learnings in today’s BPM (Houy et al., 2011).

BPM is a complex undertaking, requiring organizations to build up capabilities for factors such as the strategic alignment, governance, different methods, information technology, people, and the culture (Rosemann and vom Brocke, 2010). Today, a huge amount of techniques, tools, and methods exist to support business process management (van der Aalst, 2013; Groß, Malinova and Mendling, 2019). When discussing the act of managing processes, the BPM lifecycle is a helpful means to “systematize the steps and activities that should be followed in BPM projects” (de Morais et al., 2014). We present the model of de Morais et al. (2014) which is an amalgamation of the plethora of lifecycles found in the literature. It consists of the phases: Strategy Development (1), Definition and Modeling (2), Implementation (3), Execution (4), Monitoring and Controlling (5), and Optimization and Improvement (6).

In the first phase (1), a BPM initiative is strategically aligned (Rosemann and vom Brocke, 2010). Here, an enterprise should consider the linkage of strategy and process capabilities, for instance through the creation of a process architecture (e.g. Aitken, Stephenson and Brinkworth, 2015), the development of process measures, and the involvement of the stakeholders (Rosemann and vom Brocke, 2010). The following definition and modeling phase (2) covers the construction of as-is and/or to-be models (van der Aalst, 2004), which also entails the analysis of relevant processes for the initiative. Then the new processes are implemented (3) into the enterprise’s systems, followed by the execution of the processes. When the processes are in place, they are monitored and controlled (4), to derive performance insights (Netjes, Reijers and Van Der Aalst, 2006). In turn, this data enables the optimization and improvement of processes (5). This closes the circle and revisits the strategic development.

### 2.2 Towards the Development of a Touchpoint Management Approach

Touchpoints (TPs) are the means to model the interactions between a brand (enterprise hereafter) and its customers, which chronologically compose the so-called customer journeys (Zomerdijk and Voss, 2010) which are also seldom called TP journeys (Homburg, Jozić and Kuehnl, 2017). Where possible, we stick to the former in this work. As such, customer journeys are comparable to a process comprising different “self-contained time-logical sequence of activities” (Becker and Kahn, 2003, p. 6). While an established definition of TPs is absent, two dominant interpretations are found in the literature: On the one hand, a TP is seen as perduing, i.e. an encounter or episode of contact (Baxendale, Macdonald and Wilson, 2015; Halvorsrud, Kvale and Falstad, 2016; Homburg, Jozić and Kuehnl, 2017). On the other hand, it is described as enduring by seeing a TP as an interaction interface (Görsch, 2002; Straker, Wrigley and Rosemann, 2015). In both cases, interactions between an enterprise and a customer are meant, that can be physical (e.g. in a store) or virtual (i.e. on the web).

The importance of the TP (i.e. customer encounters) as management subject was first raised in the course of the discussion of multi-channel integration for a superior customer relationship management (Payne and Frow, 2004). It was regarded as an event when a specific planned marketing communication is carried out using one of many available channels. To manage these events, the concept of Integrated Marketing Communication (IMC) (Duncan and Moriarty, 2006) emerged, which is understood as “an audience-driven business process of strategically managing stakeholders, content, channels, and results of brand communication programs” (Kliatchko, 2008, p. 140). The use of the TP concept in IMC is important because the integrated management demands this small unit of analysis (Duncan and Moriarty, 2006). Connected to this, customer-centricity (Shah et al., 2006) requires an enterprise to focus “on customers and on building, developing and maintaining successful relationships that provide long-term benefits in the form of more purchases, product and service usage, positive word of mouth and product co-creation” (Melero, Sese and Verhoef, 2016, p. 28). As the interaction between companies and customers now involves a huge amount of different TPs, managing these becomes an important but complex endeavor (Lemon and Verhoef, 2016). Recent advances in IT drastically increased the customer’s options to interact with an enterprise (Rangaswamy and Van Bruggen, 2005), amplified the competitive pressure and, thus, the need for integration among TPs (Lemon and
Verhoef, 2016; Manser Payne, Peltier and Barger, 2017). One buzzword that heavily uses the TP concept and also leads to more IS-oriented research is the Omni-Channel (Mirsch, Lehrer and Jung, 2016; Hosseini, Röglinger and Schmied, 2017). Its ambitious aim is to overcome isolated channel-based thinking and virtually integrate them in one “Omni-Channel” (Heuchert et al., 2018) with a single TP-based transaction environment (Manser Payne, Peltier and Barger, 2017) enabling a seamless customer experience (Lemon and Verhoef, 2016). To establish this Omni-Channel environment, companies need to manage all TPs (Melero, Sese and Verhoef, 2016). Smart retailing is one application, where an array of digital and digitalized TPs is used in shops to create a better customer experience (Roy et al., 2016). One requirement for smart retailing is that linkage among TPs is present (Heuchert et al., 2018) so that the TPs can communicate with each other and realize new services. Indeed, the service concept has its link to TPs, too. Based on the well-established literature on the service-dominant logic (Vargo and Lusch, 2004, 2008), the field of service research (Ostrom et al., 2015) also makes use of the TP concept, considering them as the encounters within a service.

Clearly, methodological support is required to deal with the increasing number of TPs. Here, the concept of customer experience management comes into play (Homburg, Jozić and Kuehnl, 2017). While methodological support, up to now, is scattered, it provides a good idea of the basic aspects that need to be considered by a holistic TP management approach. In this regard, strategic directions for designing customer experience (1) and firm capabilities for continually innovating the customer experience (Homburg, Jozić and Kuehnl, 2017) are relevant for TPM. The latter are split into TP journey design (2), TP prioritization (3), TP journey monitoring (4), and TP adaptation (5).

The strategic considerations (1) focus on designing “potentially-firm spanning value constellation propositions” (Homburg, Jozić and Kuehnl, 2017, p. 396) by considering thematic cohesion, consistency, context-sensitivity, and connectivity of TPs. Especially for the latter two, the role of IT to reach these directions cannot be overstated. Next, the concept focusses on the required firm capabilities. Accordingly, the first capability deals with the ability to design TP journeys (2). Here, enterprises need ways to illustrate the customer journeys considering the paths of customers before, during, and after a purchase or service encounter (Zomerdijk and Voss, 2010). Halvorsrud et al. (2016) and Rosenbaum et al. (2017) discuss examples of such approaches. However, these were not developed with a holistic TPM in mind. On the one hand, they focus on the representation of a single customer journey. On the other hand, customer journey models resulting from such approaches usually represent TPs as perdurants for a certain customer. The consideration of TPs as perdurants enables discussions about the meaningfulness (in terms of the customer experience) and feasibility (in terms of IT) of integrating certain TPs from an enterprise perspective. This perspective is only considered by service research. It provides methods such as Customer Experience Modeling (Teixeira et al., 2012), Multilevel Service Design (Patricio et al., 2011), or Service Blueprinting (Bitner, Ostrom and Morgan, 2008). However, while newly designed services clearly use the involved TPs, service science is centered around “the co-creation of value in the reciprocal business relationships between service customer and service providers” (Beverungen et al., 2017, p. 3) and not around designing TPs. For example, Teixeira et al. (2012) describe the TP implicitly through its context (i.e. involved artifacts, technology-enabled systems or human actors), but focus on the overlaying service. The second capability is the ability to continuously prioritize TP (3) implementation and modification efforts (Homburg, Jozić and Kuehnl, 2017) without having to go through planning efforts involving e.g. the TP journey design every time. However, supportive tools are hardly present. As a third capability, companies also need to monitor their customer’s TP journeys (4) considering the newly introduced or modified TPs. Especially because of the increasing amount of individual and integrated TPs, improved attribution and experience measurement tools are required (Lemon and Verhoef, 2016; Kannan and Li, 2017). The final capability is the ability to interpret TP-specific performance indicators for adapting TPs (5) in order to create innovative propositions of customer journeys (Homburg, Jozić and Kuehnl, 2017).

In sum, the domain around the TPM can be described as nascent. Currently, the combination of methodological, approaches, and methods from the marketing and service research domains yields the clearest picture of what a holistic TPM approach should include.
3 Theoretical Framework

The theoretical background inspected how BPM and TPM are understood in the literature independently of each other. Our argument is that one can capitalize on methods of BPM for TPM instead of reinventing the wheel. In order to support our argument, we propose a theoretical framework for knowledge transfer between BPM and TPM that serves two purposes. On the one hand, it established the link between BPM and TPM and concretizes the methods that may be transferred by developing four propositions. On the other hand, it envisions how the knowledge transfer can be conducted and analyzed by means of a research design.

3.1 Propositions of Methods for the Knowledge Transfer

A large body of research is devoted to the management of BPM programs, projects, and initiatives (Rosemann and vom Brocke, 2010) on a high level. These overarching methods are typically concerned with discovering, analyzing, and improving business processes (Groß, Malinova and Mendling, 2019). The BPM lifecycle of Houy, Fettke and Loos (2010) is one representative example that structures this endeavor by defining a number of phases (cf. 2.1). Thus, in order to elucidate how TPM could benefit from these overarching methods of BPM, one needs to show what each phase would comprise in TPM. We illustrate this in the following by structuring the remainder of this chapter accordingly and referring to the presented aspects of TPM (cf. 2.2). Thus, the first proposition is:

Proposition 1: Knowledge from overarching methods of BPM like the BPM lifecycle can be beneficial for establishing touchpoint management in an enterprise.

The first phase in the lifecycle (Strategic Development) aims at scoping and structuring the respective object of analysis (i.e. business processes or TP) at a strategic level. Hence, it relates to the aspect of defining strategic directions for designing customer experience. A process architecture is one tool that supports this through a representation of business processes and their interrelationships (Dumas et al., 2018). Also going by the name “process map” (Malinova and Mendling, 2013), an architecture manages complexity by structuring the processes into several layers and taking an enduring perspective. It is common to group processes according to functions or capabilities (Aitken, Stephenson and Brinkworth, 2015) on the highest level, thereby creating a “process landscape” (Dumas et al., 2018). The benefits of such a model are that visibility about the main processes on a high level of abstraction is given (Rosemann and vom Brocke, 2010).

The term TP architecture has been used in the literature (Dhebar, 2013), but a method or examples are missing. However, the need for a holistic approach for organizing TP was voiced (Dhebar, 2013) and relates to the TP prioritization aspect, as such a framework offers high-level decision-support without going in the details of every TP. Enabled by an enduring and hierarchical view on TP (i.e. the TP retail outlet may consist of shelves, a self-checkout, meat counter, information display, etc.), a TP architecture can provide the needed overview about the major TP to the customers. This overview is required, as more TP need to be digitalized and integrated for improving the customer experience. To engage these activities, the management needs to know which structures are present.

The TP architecture should be linked to the corresponding process architecture so that it is complementary, not substituting, and a vehicle for interdisciplinary collaboration in a customer-oriented organization. With this instrument, the management can define and prioritize fields of action, e.g. for the integration of TP. Therefore, the second proposition is:

Proposition 2: Knowledge from process frameworks like a process architecture can be beneficial for increasing visibility and improving the structure of touchpoints.

After strategic decisions have been made, the next phase of the BPM lifecycle (Definition and Modeling) calls for the modeling of the relevant set of businesses processes typically in the form of as-is and to-be models. It is a prime component of BPM and has put forth an array of modeling languages (e.g. BPMN, EPC), which entail their own strengths and weaknesses (Recker et al., 2009).

The modeling of TP is a central part of the TP journey design aspect, as every TP is intangible and thus its design must be model-based. Modeling of TP can be twofold. On the one hand, modeling of a
single TP (e.g., the meat counter) is a possibility, which is currently absent in the literature. On the other hand, a sequence of different TPs can be modeled, which realizes a model of the customer’s path to purchase and beyond. This is called a customer journey and as it is composed of TPs (Zomerdijk and Voss, 2010), the customer journey represents a process. Because each customer’s journey can then be understood as a process instance, the management of these becomes important. Just like variants of business processes in the enterprise, which are identified as part of a BPM initiative, the different kinds of customer journeys may be identified given that there is an adequate modeling language.

Concepts behind process modeling languages (i.e., meta-model) may be reused by analogy, in order to create a general-purpose modeling language for customer journeys. While there are languages existent (e.g., Halvorsrud, Kvale and Følstad, 2016; Rosenbaum, Otaíora and Ramirez, 2017), these were not developed with a holistic TPM approach in mind but focus on the representation of a single customer journey. Moreover, they do not consider that TPs often link to a business process. In this regard, the integration with process modeling software tools is advisable. Dedicated modeling tools for TPs or the customer journey do hitherto not exist.

Continuing the example, several customer journeys in the retail store may be modeled by interviewing customers. Based on these as-is models, it may be identified that customers require more information about the products in the store, as they regularly consult the website while being in the store. As an improvement, a QR code as a new TP next to the product is considered, which eases the information gathering of the customer. Further, the customer may be able to trigger the business process for replenishment of an unavailable product variant in the shelf with the QR code. The identification of this potential improvement and link to a related business process is enabled by modeling. Therefore, the third proposition is:

**Proposition 3:** Knowledge from process modeling can be beneficial for modeling touchpoints as part of a customer journey.

The following phases (Implementation and Execution) of the BPM lifecycle describe the enactment of new business processes and their practice. As these are concerned with the realization of changes, less concrete methods are present in BPM. When considering TPM, its changes need to be put into practice as well. In the example, the previous phase of the TPM initiative has put forth the concept for a new TP, which now needs to be installed. The business and IT are involved in this, as the physical component needs to be set up in the store as well as its corresponding digital component. Changes to the replenishment business process also need to be documented and implemented. The succeeding execution describes how the QR code as a new TP is actively used in its environment. Due to the minor method support in these phases, no proposition is made.

The last two phases of the BPM lifecycle (Monitoring and Controlling and Optimization and Improvement) encompass activities after the business process is in place. As every business process creates data through execution (called event-logs), this data can be used for monitoring and controlling as well as optimization and improvement. One popular technique is process mining (van der Aalst et al., 2007; Houy et al., 2011), which applies data analysis on these event-logs for different purposes (van der Aalst, 2012). One is the automated discovery of a “de facto” process model, which then can be compared to a “de jure” model to notice potential deviations from the norm (Bartelheimer et al., 2018). This poses a major opportunity for TPM, as the transfer of the technique could alleviate the automated modeling of customer journeys and thereby enable a radical improvement in the tracking of customer behavior. As every customer leaves a digital footprint at a digital or digitalized TP, which may be recorded in an event-log, the challenge will be to connect these footprints in order to reconstruct the customer journey. Clearly, this relates to the TP journey monitoring aspect. In a way, it outlines an advancement to cookie-based tracking in web analytics. Initial research on this topic is emerging (Bartelheimer et al., 2018; Lehnert, 2018). Therefore, the fourth proposition is:

**Proposition 4:** Knowledge from process mining can be beneficial for automatically documenting customer journeys.
3.2 The Knowledge Transfer Process

To conduct the knowledge transfer and analyze the validity of the propositions, we present a research design shown in Figure 1. It is based on the five-stage model for knowledge transfer by Liyanage et. al (2009) as well as the work on the design science research paradigm by Hevner and Chatterjee (2010).

The research goal of transferring methods of BPM for use in TPM can be seen as being dependent on three questions (Q1-Q3) that are chronologically addressed during the process. Q1 (Which methods of BPM can be useful in TPM?) creates a set of candidate methods, which are a prerequisite for the following steps. Deliberately, the formulation “can be” is used in Q1, as no definite statement about usability can be made at this point. The four propositions are a first approximation towards Q1. Q2 (How methods of BPM can be transformed for TPM?) investigates how the actual shift between domains along with necessary changes can be performed. Q3 (Which methods of BPM are useful in TPM?) assesses whether practice confirms the utility envisioned in Q1. Q1 and Q3 are separated because not all candidate methods resulting from Q1 will be part of the following steps due to prioritization.

![Figure 1. Research Design inspired by Hevner and Chatterjee (2010) and Liyanage et. al (2009).](image)

The design science research (DSR) paradigm (Hevner, March and Park, 2004) guides this endeavor. It is chosen, as it allows for practice-oriented research, it is common in BPM research (Houy et al., 2011, p. 388), and fits the knowledge transfer scenario, which is explained in the following. Its three characterizing and interplaying constituents – the knowledge base, the design science research and the environment (i.e. application domain) (Hevner and Chatterjee, 2010, p. 16) – are integrated on the vertical. The research design is centered on the DSR activity, which acts as a mediator between the “sending” research domain BPM and the “receiving” application domain TPM on the horizontal. The Awareness phase is used to identify the valuable knowledge for the transfer, i.e. BPM methods. To do this, two inputs are necessary. First, challenges in TPM need to be identified to know possible fields of action (1). A round of unstructured interviews (Myers and Newman, 2007) with experts in the TPM domain are the method of choice to capture the explorative nature of this effort and to ensure coherence to practice. Second, a literature review on existing BPM methods is performed (2) to ensure the visibility of knowledge transfer options. Based on this, it is possible to map TPM challenges to BPM methods to become aware of the set of potential BPM methods for TPM. This step addresses Q1.

In the following Acquisition phase, the research team equips itself with the required knowledge about the set of potential BPM methods for TPM resulting from Q1 by drawing on the BPM literature (3). This enables the modification of BPM methods for use in TPM as part of the Transformation stage. For instance, the modification of a process modeling language will likely include the definition of new attributes, while a meta-model could be reused to some extent. During this stage, Q2 is addressed. After the BPM methods are transformed for TPM, it needs to be ensured that the benefit of this new knowledge, i.e. the transformed methods, is associated with the TPM needs and capabilities (Trott,
Cordey-Hayes and Seaton, 1995). Only through this, the usability of the knowledge for TPM can be warranted. For this, group interviews will be conducted with TPM experts to uncover these associations (4). Group interviews are chosen here because this will stimulate a discussion about the association of methods to the needs and capabilities. Ideally, the experts are selected with respect to the method, e.g. chief transformation or chief digital officers for methods of the strategic development phase. The transformed methods will likely be improved because of this evaluation.

Lastly, the Application phase utilizes the transformed methods in TPM practice and gives an answer to Q3: Which methods of BPM are useful in TPM? In the form of ideally multiple case studies, the transformed methods will be applied in a real-life scenario. The outcomes of this phase contribute to the body of knowledge in the TPM and BPM domain (6), which can be seen as the last step of the model by Liyanage et al. (2009) (Knowledge externalization/feedback).

The outlined process fulfills the requirements of a design science research (DSR) project. Hevner and Chatterjee (2010) describe three cycles being located between the three aforementioned constituents (i.e. knowledge base, DSR, environment). Their existence is mandatory for each DSR project. The relevance cycle exists between the environment and the DSR. The design cycle is located within the DSR and highlights the evaluation while building the artifact. The rigor cycle links the DSR with the knowledge base to provide existing knowledge for use in the design.

The connections between the environment, the knowledge base, and the DSR in Figure 1 help to locate the different cycles. As the awareness phase links to the knowledge base (2) and environment (1), the rigor, as well as the relevance cycle, are extant. The acquisition phase is additionally drawing from the knowledge base (3) and thereby assures rigor. The following transformation phase starts the design cycle, which continues over the association phase. The transformation phase captures the primary construction of artifact including constant evaluation with respect to the defined challenges. Likewise, the association phase mirrors the transformed methods to the needs of TPM for evaluation purposes, which also contributes to the relevance cycle (4). The outcomes of this evaluation may lead back to an alteration of the artifact as design science is an inherently iterative (Hevner, March and Park, 2004). The application phase (5), which demonstrates the artifact’s utility, is also part of the relevance cycle. The evaluation of the artifact is crucial and embedded in the transformation, association, and application phase. Building on the evaluation methods described in Hevner, March and Park (2004, p. 86), descriptive evaluation via scenarios is used in the transformation phase due to its early stage in the process. Simulations (i.e. usage with artificial data) are used to inform the artifact in the association phase. Lastly, the application phase builds on the monitoring of use in multiple projects (field study).

4 Outlook

A research contribution should answer three questions: “Is it new? Is it true? Is it interesting?” (Wilson, 2002, p. 168). While this research in progress is unable to provide a definite answer to the second question, it is argued in favor of the remaining two. The novelty of this article lies in proposing a theoretical framework to build a bridge between the well-established and mature domain of BPM and the nascent TPM. From the initial analogy between the process and touchpoint concept over the illustration of transferable methods to the research design, a new avenue of research is outlined. While the discussion about the for and against of the touchpoint concept is beyond the scope of this article, it is undeniable that it draws attention in several domains apart from BPM. Examples are retailing (e.g. Verhoeft, Kannan and Inman, 2015), marketing (e.g. Homburg, Jozić and Kuehn, 2017) or service science (e.g. Duncan and Moriarty, 2006) especially in combination with the Omni-Channel approach. However, when considering implementation, these ideas are far from realization. In this regard, it is surprising that BPM research has not attended the act as the gatekeeper of the procedures in an enterprise. This paper addresses this circumstance and seeks to conquer new frontiers with BPM in order to avoid a greenfield approach that will ultimately lead to another, less integrated perspective on the enterprise. At this early stage of the TPM domain, it must be the aim of BPM to shape and support TPM where possible in order to pave the way for the integrated customer interactions of the future.
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