How to Create Organization-Specific IT Impact Catalogs: A Method for Iterative Knowledge Specialization

Frederik Hendricks[1*][0009-0003-4417-3835], Sarah Seufert[1][0000-0003-3231-2853], and Reinhard Schütte[1][0000-0002-1535-9038]

[1] University of Duisburg-Essen, Essen, Germany
{frederik.hendricks, sarah.seufert, reinhard.schuette}@uni-due.de

Abstract. Organizations invest heavily in IT systems yet frequently struggle to justify these investments because the expected benefits remain unspecified and thus not reached. A precondition for measuring the return on IT investments is a systematic prior identification of the impacts those systems are expected to produce. Existing impact catalogs provide a useful starting point but operate at a level of abstraction that prevents their direct application in organizational practice. What is missing is a method that guides the adaptation of generic catalog knowledge toward the specifics of a concrete organization. Drawing on a design science research approach, this article proposes a method for creating organization-specific IT impact catalogs through iterative knowledge specialization. Starting from a generic, process-centric organizational framework, the method incrementally incorporates knowledge about the IT system class, the industry, the company type, and ultimately the specific organization, terminating at the level of specificity at which concrete, observable, organization-specific impacts can be identified. The method is demonstrated through an application to an ERP system implementation at a wholesale company in the plumbing and heating sector. Interviews with organizational members and decision-makers provide evidence that the identified impacts materialize in practice. This contribution advances both the academic understanding of IT impact identification and the practical toolkit for benefit realization planning.

Keywords: IT impact identification, benefit realization, impact catalog, ERP systems, design science research, wholesale trade

1 Introduction

Organizations worldwide invest heavily in information technology (IT). According to Gartner [8], global IT spending is expected to reach 6.15 trillion USD in 2026, a figure that reflects widespread adoption and that digital systems have become structurally embedded in organizational operations [11]. Despite this level of commitment, the question of whether and how IT investments generate organizational value remains one of the most persistent and unresolved challenges in IS research and practice [5, 13, 21].

This challenge is not merely a measurement problem. Before the impacts of an IT system can be measured, they must first be known and identified. Organizations that cannot specify what improvements a system is supposed to produce are in no position to assess whether those improvements have materialized, nor to take the active organizational steps required to realize them. This logical and temporal priority of identification over measurement is well established in the benefits realization literature [26, 31]. Organizations attempting to identify the expected impacts of an IT system typically face a difficult choice: they may rely on intuition or project team experience, which is neither systematic nor replicable; or they may consult existing impact catalogs from the academic or practitioner literature, only to find that these catalogs describe impacts at a level of abstraction that prevents their direct application, leaving the organization without a usable list of concrete impacts from which to manage benefits realization.

Existing catalogs name impacts such as "improved process efficiency", "better decision quality", or "enhanced customer integration" [16, 19, 22, 28]. These descriptions are neither incorrect nor unimportant, but they are generic and apply to many organizations and IT systems, and do not help a specific organization determine which impacts are relevant to its processes, and the specific IT system it is using. They show a high reusability, while lacking the power to express concrete impacts. Here, power is understood as the concreteness of the described impacts. Adapting such catalogs to an organizational context requires substantial knowledge of the organization, industry, and IT system. Existing literature is scarce on how that adaptation should proceed systematically. The dominant response in the literature amounts to the observation that practitioners *have to do it* [26], a structured solution to the problem is not given. When the catalog is being adapted for a specific organization, i.e., has high power, it lacks reusability across different contexts instead. Seufert et al. [27] propose a preliminary taxonomy for selecting IT impacts from existing impact catalogs but do not present a finished method for creating an organization-specific catalog. Further, they do not present criteria for when a catalog does not need further adaptation and can be used in an organization.

This gap calls for an approach that is systematic enough to be replicable across contexts and thus produce reusable catalogs, yet flexible enough to incorporate organization- and domain-specific knowledge and thus be directly usable, i.e. having a high power. The present article addresses that gap. We present a method that enables organizations to create their own IT impact catalogs by iteratively specializing a generic organizational framework through successive layers of domain knowledge. The method follows a design science research (DSR) approach [10, 17, 29] and is grounded in the understanding that impacts of IT systems are not inherent properties of the technology itself but emerge from the interaction between IT artifacts and socio-technical organizational systems [13, 20]. The method has been developed and evaluated in the context of an ERP system implementation at a wholesale organization in the plumbing and heating sector, chosen for its economic significance and the distinctive combination of generalizable and sector-specific knowledge it requires.

Our contribution is twofold. Theoretically, we advance understanding of the knowledge required to identify IT impacts and that the problem at hand is a knowledge problem. Practically, we offer a method that organizations and IS practitioners can apply across different IT system types and industry contexts. Two research questions guide our work:

RQ1: How can a method be designed which creates reusable and specific IT impact catalogs simultaneously?

RQ2: Which knowledge sources can be used to acquire the needed knowledge for an appropriate IT impact catalog?

2 Theoretical Background

2.1 The Problem of IT Impact Identification

The academic literature on IT business value is extensive, spanning multiple decades of empirical and theoretical work [21]. A consistent finding in this literature is that IT investments can generate significant value across multiple organizational dimensions [13]. Yet the realization of this potential is far from automatic. IT value does not arise from the mere presence of technology but is mediated by organizational processes, complementary resources, and the competitive environment [13]. This mediating structure implies that the impacts of an IT system are inherently context-dependent: the same system may produce substantially different impacts in different organizations [26].

The centrality of prior identification to subsequent evaluation is recognized in the benefits management literature. Ward and Daniel [31] define the purpose of benefits management as improving the identification of achievable benefits so that the decisions and actions taken over an investment's lifetime lead to the realization of all feasible benefits. Identifying IT benefits is among the most significant challenges organizations face when evaluating IT [2, 6]. Organizations that have stronger benefits identification capabilities achieve significantly better IT project outcomes [1]. Despite this, the specific process by which organizations should move from generic knowledge about IT impacts to a concrete identification of impacts has not been methodologically addressed in the literature.

In this article, we follow [21] and [26] in using the term "impact" to denote any changed *economic* effect on the organization resulting from the introduction or change of an IT system, positive or negative, intended or unintended.

2.2 Existing IT Impact Catalogs and Their Limitations

A range of research contributions has sought to systematize the impacts of IT systems through impact catalogs. The framework of Shang and Seddon [28] categorizes ERP benefits along five dimensions: operational, managerial, strategic, IT infrastructure, and organizational. Other works provide an empirically grounded account of the benefits realized from ERP implementations [16]. Schubert and Williams [22] extend existing frameworks by comparing expected and realized benefits of enterprise system implementations, revealing systematic discrepancies between them. Other works focus on the effects of IT on the supply chain [23] or on e-commerce [19].

Despite their merits, these contributions share a limitation [26, 27]: they operate at an abstraction level insufficient for direct organizational application. Concepts such as "process efficiency," "operational flexibility," or "supplier integration" describe desirable states in general terms but provide no guidance on whether and how they apply to a specific organization, or which processes are affected. This abstraction is not incidental: it is a design choice that maximizes catalog reusability at the cost of specialization, i.e. power. A catalog that names fifty generic impacts can plausibly claim to cover most organizations; a catalog that identifies twenty specific impacts for a wholesale company integrating an ERP system with its logistics processes is immediately usable in that context but less generalizable across different contexts.

The consequence for practice is that every use of a generic catalog requires substantial, undocumented translation work. This proves problematic because it is not replicable, thus posing a threat to the reusability of catalogs. Practitioners must decide which generic categories apply to their setting, how each should be operationalized, and which are likely or unlikely to materialize given the specific system and business processes. This translation is typically performed informally, relying on individual judgment and knowledge rather than a structured process.

2.3 The IT System as a Socio-Technical Artifact

A critical premise underlying the method presented is that the impacts of an IT system cannot be derived solely from the system's technical properties [13, 21, 26]. IT affects organizational performance not directly but by changing the processes through which organizations create value [13]. This means that understanding the potential impacts of an IT system requires understanding the processes of the organization [13, 20]. Successful benefit realization from IT systems thus requires knowledge of both the IT system and the organization's relevant business processes. The lack of such knowledge is associated with benefit shortfalls [4].

This theoretical framing motivates the process-centric structure of the method presented in this article. Because IT impacts are mediated by business processes [13], a method for impact identification must begin with a model of the relevant processes and trace how the introduction of the IT system changes the way those processes operate.

2.4 The Trading Sector as Demonstration Context

The demonstration of the method focuses on a wholesale company operating in the plumbing and heating sector. From a methodological perspective, it is a particularly interesting context, because it encompasses multiple stages (manufacturer, wholesaler, retailer) each with different operational profiles, regarding their distribution chain, processes, customer and supplier relationships, and competitive dynamics [25]. Further, the artifacts of the intermediate stages can be reused across a range of organizations.

3 Methodological Approach

The research reported in this article follows the DSR paradigm [10, 17]. DSR is oriented toward the creation of artifacts, e.g., models, methods, or instantiations, that address real-world problems [10, 17]. It generates knowledge about the relationships between problem characteristics and solutions. This orientation makes DSR appropriate for the present contribution, which aims to produce a method that solves an identified problem. The specific DSR process model we follow is the echelon DSR (eDSR) framework [29]. It extends conventional DSR process models by organizing research into design echelons, which are logically coherent, self-contained components that can be combined to address complex, sociotechnical problems [29].

The first echelon, problem analysis and motivation, is presented in the first two sections of this article. It establishes that organizations face a practical and methodological problem in translating generic catalog knowledge into organization-specific impacts. The second echelon defines the objectives and requirements for the artifact. The requirements for our artifact (method) are (1) Transparency: The method must make its knowledge assumptions and derivation steps explicit so that users can trace and audit the output; (2) Generality: The method must be applicable across different organizations and IT system types; (3) Reusability: The intermediate impacts identified at each specialization level must be reusable for similar organizations or industries; and (4) Actionability: The terminal output must consist of impacts specific enough to be recognized, realized and measured in an organization. The third and fourth echelon, the design and development of the method, and its demonstration, are presented in Section 4. Here, we describe the method and apply it to the demonstration case. The fifth echelon, evaluation, is addressed in Section 5. Following Venable et al. [30] we adopted an outcome-based evaluation strategy in which the method is assessed through the artifact it produces, i.e. the catalog. The evaluation was conducted through ten semi-structured interviews with decision-makers at the case organization. Interviewees were purposively selected from the departments for which the method had identified the largest number of impacts, so that each interviewee could assess impacts within their direct domain of responsibility. Interviews were conducted in person and lasted between one and three hours. The interview guide was structured around the impact catalog produced by the method. For each impact relevant to the interviewee's domain, we asked (i) whether the impact is likely to materialize following the introduction of the ERP system, and (ii) under which conditions it would do so. Each interview also included an open prompt asking interviewees to identify relevant impacts that the method had not revealed, allowing us to probe the catalog's completeness. This evaluation provides empirical evidence regarding the method's practical validity.

We note one deliberate scope decision: this article focuses on the method itself and its application logic. The complete impact catalog for the demonstration case, as well as the intermediate catalogs that contain process- and organization-specific information, is beyond the space constraints of this article. Here, we illustrate the method’s logic and output structure through representative examples at each level.

4 The Knowledge Framework and Its Iterative Specialization

4.1 Design Rationale: Iterative Specialization as a Bridge

The central problem our method addresses is the gap between generic catalog knowledge, which can be applied across various industries and organizations, and the knowledge needed to identify organization-specific impacts, which is needed for a specific organization. In the problem-solving literature, this problem is referred to as the power-generality, or power-reusability, trade-off [7, 15]. We address this problem through iterative specialization. Based on this the impact candidates get more precise in each level and thus more specific for a given organization. Early levels are characterized by high reusability and low power, whereas the opposite is true for the later levels. This iterative logic exploits a property of the problem: generic knowledge is widely available (e.g., in the academic literature, in vendor documentation, in industry analyses) and can be used in the earlier level. Organization-specific knowledge is the most insightful and helpful, but the hardest to generalize and structure properly. It must be incorporated within the later levels, where the focus is on the organization at hand.

A level can be considered complete when two conditions are met. First, the knowledge sources appropriate to that level have been systematically consulted, academic and practitioner literature for the earlier, more generic levels, and domain expert interviews or organizational documentation for the later. Second, each of the six framework dimensions (cf. Level 0) has either been populated with at least one refined impact candidate or explicitly excluded, with a documented reason. Together, these conditions ensure that completeness is assessed against an external reference and that the output of each level is traceable and auditable.

4.2 Level 0: The Generic Organizational Framework

The method starts with a generic organizational framework that identifies the dimensions through which an IT system can affect any organization. The framework is grounded in a process-centric view of the organization. Business processes are placed at the center because IT systems interact with organizations primarily through the processes they support or transform [9, 13]. Following the distinction between primary value-adding and supporting activities, the framework distinguishes primary processes, which are directly responsible for value creation, from secondary processes, which support the organization's functioning but are not the primary source of competitive differentiation or value creation [18]. This distinction is analytically useful because IT systems have a process-oriented architecture [9], which disproportionately impacts a handful of an organization's operational processes.

Surrounding the process core, the framework includes six dimensions, each of which the literature concerning impact catalogs identifies as a focus of IT impacts: (1) Customer relationships, where the speed, quality, conceptualization or modality of interactions are changed; (2) Suppliers and supply-side relationships, where procurement processes, information sharing, or condition management may be altered; (3) Resources, including human capital, financial resources, and physical assets such as inventory; (4) Products like goods or services, including their management, storage, and logistical treatment; (5) Strategy, where IT systems may affect cost structures, differentiation capabilities, or market responsiveness; and (6) the existing IT landscape, since the impacts of a new system depend in part on how it integrates with or replaces existing systems [16, 19, 22, 23, 26, 28]. These dimensions guide the following specialization levels and provide guidance on which information must be acquired to finalize a level. It may not be possible to specialize every dimension across every level, e.g., the question of which IT systems are being used cannot be answered in the first level, thus this dimension falls short of further specialization in this level. However, this must be documented.

The general number of levels is not fixed and may vary depending on the organization and IT system. However, the first three levels, specialization for the IT system type, specialization for the industry, and specialization for the concrete organization, are to be expected. For our demonstration case, the level for distinguishing the product category is also needed.

4.3 Level 1: Specialization for the IT System Type

The first specialization step restricts the framework to the class of IT systems under consideration. In the demonstration case, this is an ERP system. They are defined by a process-oriented, transaction-based architecture [9] that integrates the information across an organization's primary and supporting processes in a unified data environment. Academic literature provides substantial documentation of the typical impacts of ERP systems, including operational improvements in process execution, better availability and quality of management information, integration benefits across formerly siloed processes, and strategic effects on organizational agility and data-driven decision-making [16, 28].

At this level, the framework is populated with impact candidates drawn from the ERP literature and existing impact catalogs. These candidates remain generic, applicable to ERP implementations in any organization. But they are more specific than the abstract categories of Level 0. For example, the process dimension now includes concrete processes that can be affected e.g., by reduced transaction errors, faster document processing, or improved data integration. Not all processes are supported in the same manner by an ERP system, and only those that are important for the system at hand should be analyzed further. Still, the level of specificity is insufficient to identify operational impact on an organizational level.

4.4 Level 2: Specialization for the Industry

The second specialization level incorporates knowledge about the industry in which the organization operates. Here, academic literature can be used as a starting point for identifying the relevant processes and tasks. For the trading sector, this means grounding the framework in the economic logic and typical operational structures of trading companies. The core function of a trading organization is to perform bridging tasks: overcoming spatial, temporal, quantity-related, and quality-related gaps between supply and demand [3]. The primary value-adding processes for a trading organization, that are supported by an ERP system, are accordingly procurement, storage, and sales, complemented by the four elements of the marketing mix: product planning, pricing, distribution, and promotion [12], which are relevant for the strategic and customer-facing dimensions of the framework. These constitute the main processes that shall be further analyzed for impact candidates.

Industry-level knowledge also shapes the resource and product dimensions. The primary resource of a trading organization is the goods it trades. The physical and logistical properties of these goods, their storage requirements, transport characteristics, and regulatory treatment, are important factors of where IT impacts are likely to materialize and must be analyzed in a following level. A food retailer faces different IT impacts regarding cold chain management and shelf-life tracking than a fashion retailer or a technical goods wholesaler. This observation motivates a further specialization step, which is focused on the product category (Level 4). With respect to IT infrastructure, trading organizations typically deploy an integrated ensemble of systems including ERP, SCM, CRM, SRM, BI, shop systems, and product information management (PIM) systems [25]. The impact of a new system must be assessed relative to the existing organizational landscape. However, some impacts can already be identified at this level, such as the need for integration between systems, e.g. between the ERP and PIM systems, where the ERP would supply the PIM with product prices, calculation logic, and article availability.

The industry-level framework remains reusable across all organizations in the trading sector. It does not yet include organization- or wholesale-specific impacts, but it has substantially narrowed the set of candidates and organized them around the sector-specific processes and relationships most likely to be affected by the IT system.

4.5 Level 3: Specialization for the Organizational Type

The third specialization level differentiates within the trading sector according to the organization's position in the distribution chain. A wholesaler and a retailer operate with fundamentally different business models, customer bases, supplier structures, and process configurations, even when operating in the same product category [14]. The case organization is a wholesaler, an entity positioned between manufacturers and retailers, operating in a B2B model [14]. This positional knowledge allows several important specializations of the framework. Part of this specialization can be done via literature, while other parts need the support of domain experts.

First, the customer dimension is now defined primarily as retail companies rather than end consumers. This implies that relationship management is oriented toward negotiated terms and conditions rather than point-of-sale transactions, making condition management and the dunning process particularly important for identifying IT impacts. Customer segmentation, which allows differentiated treatment of customers, becomes a relevant impact candidate in this context as well.

Second, the logistics processes are expanded to include outbound transportation management. A wholesale organization operates its own fleet of trucks in addition to using external freight forwarders. This means that distribution logistics, including fleet management, route optimization, driver coordination, and warehouse-to-transport handover processes, are internal to the organization and therefore subject to direct IT impact. Potential impacts include reductions in transportation costs, improvements in delivery reliability, and optimized fleet utilization. These impacts would not be present for an organization that uses only third-party logistics providers, illustrating how organizational-type knowledge shapes the impact landscape.

4.6 Level 4: Specialization for the Product Category

The fourth specialization step incorporates knowledge about the specific products traded by the organization. In the demonstration case, these are plumbing and heating products, a category with distinctive physical and logistical properties relevant to identifying IT impact. Unlike food products, these goods do not require cold chain management or have short shelf lives, but they do involve a wide range of product variants (e.g., tile formats, fitting sizes, finish options), which creates complexity in product information management, inventory, and order processing, and the need for scalable master data management [24]. Unlike fashion products, they are not subject to strong seasonal demand fluctuations, but the renovation and construction cycle creates predictable medium-term demand patterns that can potentially be exploited through better data analytics and forecasting. At this level existing literature is often not specific enough in helping to specialize the impact candidates. Knowledge from domain experts must be consulted.

These product-specific characteristics refine the impact candidates across the product and resources dimensions of the framework. For example, the complexity of product variants makes the management of a consistent, complete, and up-to-date product catalog a significant operational challenge and therefore a significant potential focus of IT impact [24]. An ERP system can improve the quality, management, and accessibility of product information, reduce errors in order picking due to misidentified variants, or streamline the management of returns and complaints. This would not be equally relevant in all trading contexts. At this level, the framework begins to approximate the specificity required for the identification of direct impact.

4.7 Termination Criterion and Output

The specialization process terminates when the framework has reached a level of specificity at which concrete, observable impacts can be identified. This is a significant improvement over prior literature, where the focus does not lie on those impacts. We state that the specialization can be ended when the following requirements are met: (a) an impact candidate affects a clearly defined process; (b) The process at hand is being changed by the IT system under consideration; (c) Conditions under which the change occurs are bounded and identified, i.e. which function of the IT system is responsible for the change in question, and what must be done to enable it. For the termination of the specialization process, all three criteria must be met. For example, “faster processing of customer orders” does not meet the third requirement. If we analyze the boundary conditions further and can rename our impact candidate to: “faster processing of customer orders due to integrated order entry and inventory management", all three requirements are met and it can be considered an organization-specific impact, which does not need further specialization.

When these criteria are met for all impacts in the catalog, then no further specializations are necessary. The output is an organization-specific IT impact catalog: a structured list of economic impacts, each tied to a specific dimension of the organizational framework (a process, a customer or supplier relationship, a resource category, a product characteristic, a strategic consideration or an IT system) and described at a level of specificity that enables subsequent identification and measurement planning at a specific organization. Further examples of terminal-level impact statements in the demonstration case include: the reduction in condition management errors through automated price and discount retrieval; improved pricing process and automatic calculation of conditions; improved route planning efficiency due to ERP-integrated transportation module; improved storage and retrieval of product data by using a new standardized approach; and reduced inventory discrepancies through real-time goods movement tracking. These are qualitatively different from generic catalog entries such as "improved process efficiency".

Table 1 illustrates, by way of example, the path an impact candidate has taken across the various levels and how it has become increasingly specialized at each level:

Table 1. Path of an Impact Candidate

Level	Knowledge Source	Specialized Knowledge:
0	Generic impact catalogs	Customer interactions may change in speed, quality, conceptualization, or modality
1	Academic Literature such as ERP impact catalogs	ERP systems allow for better availability and quality of information towards customers
2	Academic literature such as the marketing mix	The pricing process is an important aspect for a trading company regarding its customer relations
3	Academic literature and domain experts	Customers are retail companies under negotiated terms, making condition management a primary relationship process rather than point-of-sale pricing
4	Domain and IT system experts	Given the wide variety of options a product can have, the calculations of the price for a specific variation can take long

Based on the knowledge acquired at each level an impact can be formulated which meets the termination criteria mentioned before: "A reduction in condition management effort and errors through automated price and discount retrieval".

5 Discussion

The interviews conducted at the case organization provide initial evidence for the method's validity. This evaluation is necessarily bounded by the scope of a single case study. In line with Yin's [32] argumentation, the case does not support statistical generalization. Rather, it demonstrates that the proposed method can produce impact statements that are recognized as valid by organizational stakeholders. The interviewees were asked whether the catalog produced by the method is useful and actionable, i.e., if it helps them to properly identify those impacts which can materialize in their case. This evaluation is in line with argumentation from Venable et al. [30] whereby the outcome of a method can be assessed to evaluate the method itself. Because the interviews centered on the assessment of predefined impacts, the catalog entries themselves served as the coding frame for analysis. Detailed notes were taken during each interview. For every impact discussed, two researchers independently coded whether the interviewee judged the impact likely to materialize and recorded the stated conditions under which they would. The two coders then compared their assignments and resolved discrepancies through discussion to reach a consensus judgment for each entry. Across the impacts assessed, interviewees judged approximately 95% of the impacts named in the catalog to be relevant and likely to materialize in their organizational context. Impacts raised by interviewees that were not part of the catalog were recorded separately as indications of potential gaps. However, those gaps had no effect on the creation of the method. Interviewees recognized the impacts identified by the method in their actual experience of the ERP system's effects on their work and confirmed that most of the catalog entries corresponded to observable changes in the organization.

This article makes two theoretical contributions to the IS literature. First, it advances the understanding of IT impact identification as a knowledge problem. The literature has long acknowledged that impact identification is difficult and that existing catalogs are insufficient for direct organizational application [2, 26, 27]. What has been missing is a response. The article presents a method for creating catalogs that are both reusable across different organizations and specific enough for direct application, thus directly meeting requirements (3) reusability and (4) actionability. This framing integrates IT impact identification into the broader problem-solving literature.

Second, the article demonstrates the applicability of the eDSR methodology [29] to a design problem in the IS business value domain. This application may inform future DSR projects addressing similarly structured problems in IS.

Practically, the method offers organizations and IS practitioners a replicable process for translating generic catalog knowledge into actionable impact identification. It addresses the power-reusability tradeoff and can produce catalogs that can be reused across a wide range of organizations as well as impact catalogs which are directly usable in each organization. The value lies in the ability to reuse existing catalogs and to create industry-tailored catalogs that can be shared across organizations.

Regarding the requirements it can be stated that transparency is supported by the execution of the method itself: each specialization level documents the knowledge source from which impact candidates are drawn and the reasoning by which they are included or excluded. For instance, the condition management impacts appear at Level 3 and not earlier because they are a direct consequence of the B2B wholesale context established at that level. However, the underlying importance of the pricing process is added earlier as it affects organizations in the trading sector as a whole and not just B2B organizations. Individual bias in literature selection or expert choice cannot be fully eliminated, but the explicit documentation of sources at each level makes such bias visible and correctable by subsequent users. Generality is supported by the structure of the demonstration: Levels 0 and 1 are constructed entirely from publicly available literature, without presupposing any particular industry or company.

Reusability is demonstrated by the intermediate artifacts produced during the demonstration. The trading-sector framework established at Level 2 is a reusable knowledge asset: any trading organization introducing an ERP system could begin specialization at Level 3, bypassing the reconstruction of former levels entirely. This preserves knowledge and reduces the effort required for each subsequent application.

Actionability is supported directly by the interview evidence reported above. Interviewees confirmed that the terminal-level impact statements corresponded to observable changes in their actual operations. This is a result showing that impacts formulated at the appropriate level of specificity are recognizable and verifiable in practice, which is the precondition for their use in benefit realization planning.

Returning to the research questions that guided this work: The method presented allows catalogs to be created that are simultaneously reusable and specific, thus addressing RQ1. The method resolves this tradeoff by an iterative design with different foci in the corresponding level and thus a set of catalogs which can be used. RQ2 asked which knowledge sources support the construction of an appropriate catalog. Our work identified three main sources: academic literature and existing catalogs, practitioner and vendor documentation for the IT artifact, and interviews with domain or organization experts. The increasing shift from literature-based to person-based knowledge reflects the increasing specificity required at each level.

6 Conclusion

This article has presented a method for creating organization-specific IT impact catalogs through iterative knowledge specialization. The method addresses a gap that both practitioners and scholars have identified but not systematically resolved. By organizing the specialization process as a sequence of levels, from a generic organizational framework through IT system type, industry, organizational type, and product category, the method provides a traceable and reusable path from abstract catalog knowledge to concrete impact identification.

The demonstration in the context of an ERP implementation at a plumbing and heating products wholesaler illustrates both the logic of the method and the qualitative difference between generic and specialized impact statements. Interview evidence suggests that the method identifies impacts that materialize in organizational practice, a necessary condition for its practical utility.

Future research should extend the evaluation to multiple organizational contexts and IT system types, develop pre-built specialization frameworks for additional industries, and explore the method's integration into formal benefit realization management processes.

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