

The Operationalization of Strategic Alignment: Driving IT Value through Business-IT Dialogues

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Abstract

Information technology (IT) as a strategic asset urges organizations to establish strategic alignment between business and IT stakeholders to maximize the contribution of IT. Yet, they still struggle to effectively communicate the strategic perspective and the business value of IT. In three organizational settings, we conduct action design research to effectively communicate IT business value. We develop a structured end-to-end process with four steps: initialization, stakeholder identification, strategic dialogues, and consolidation & analysis. We derive eight design principles to design and implement this business-IT dialogue format that strengthens mutual understanding and strategic perspective. Hence, this paper provides guidance for organizations to establish strategic conversations between business and IT stakeholders and advances research on operationalizing business-IT alignment.

Keywords: Business-IT Communication, IT Business Value, Action Design Research, BITA, Strategic Grid.

1. Introduction

Information technology (IT) is a strategic resource for organizations (Schwarz, 2018). This leads to a constantly rising proportion of IT costs in total costs over the last years (Metrics Germany GmbH, 2023). However, practitioner studies show that IT budgets are not increasing equally to IT costs and the responsible managers are encouraged to “do more with less” by focusing on the strategically most relevant digital initiatives (Gartner Inc., 2022) and understanding and maximizing the value IT delivers (Metrics Germany GmbH, 2023). As business value relies heavily on stakeholder perception, demonstrating it requires effective communication and a regular dialogue between stakeholders (Riedinger et al., 2023). At the same time, practical studies emphasize that less than 30% of IT professionals rate collaboration between IT and business leaders as sufficient (LeanIX GmbH,

2023) and that for 63% of 166 interviewed Chief Information Officers (CIOs), it is a challenge to communicate the business value of IT (Gartner Inc., 2019). Thus, the aim of this paper is to develop a collaborative format for effective communication between business and IT stakeholders about the strategic perspective and IT business value (ITBV).

The relationship between business and IT has been discussed in research for decades (De Haes et al., 2020; Njanka et al., 2021). Henderson & Venkatraman (1993) present the Strategic Alignment Model (SAM) covering collaboration and perspectives on how IT contributes to business value. With its impact on strategy, effective communication is a critical pillar for business-IT alignment (BITA) (Cybulski & Lukaitis, 2005; Roses et al., 2015). To establish business/IT (B/IT) communication, studies identify criteria for mutual understanding (Adnan & Jambari, 2016) or present success factors for IT value communication (Riedinger et al., 2023), also highlighted in performance measurement frameworks, but not described in detail (Held & Westner, 2022; Mitra et al., 2011). To overcome the challenge of organizations to effectively discuss the strategic use of IT, this paper presents a dialogue format that drives strategic business/IT conversations. It strengthens mutual understanding, consolidates digital initiatives, and focuses stakeholder commitment. In doing so, we expand research on the operationalization of BITA and its link to ITBV. Practitioners can optimize strategic conversations by applying the format, thereby enhancing ITBV understanding and delivery.

The paper is structured as follows: First, we introduce challenges of BITA focusing on strategy and value communication. Next, we explain action design research (ADR) as our research method. Following ADR stages, we design and evaluate the resulting artifact. Finally, we generalize the outcomes and draw a conclusion with an outlook for future research.

2. Formulating the problem of communication between business and IT

Governance is the basis for collaboration between business and IT and thus forms BITA and the optimal contribution of IT to the business (De Haes et al., 2020). In this field, the SAM is a foundation for research, describing alignment as a multivariate relationship based on the fit between strategic and operative domains, and the functional integration of business and IT domains, as detailed in various publications (De Haes et al., 2020; Henderson & Venkatraman, 1993; Njanka et al., 2021). BITA is a continuous process that requires understanding and communication (Cybulski & Lukaitis, 2005). Effective B/IT communication has a significant impact on commitment and strategic conversations (Roses et al., 2015). By contrast, the lack of a common language and equal collaboration hampers the BITA operationalization (Nolan & McFarlan, 2005). Main challenges for a successful BITA are sustaining alignment in the long run, providing the benefits of IT, and the lack of communication (Njanka et al., 2021). Therefore, organizations should establish effective communication mechanisms and discuss the long-term perspective and strategic use as well as IT contribution based on stakeholder perception (Riedinger et al., 2023).

Research proposes several frameworks to overcome the challenge of communicating and demonstrating the ITBV. The AIAC framework describes the process steps of alignment, involvement, and analysis for measuring IT payoffs, followed by a communication step to share the analyzed payoffs (Kohli & Devaraj, 2004). A further framework includes a communication plan for ITBV with the five steps scope, focus, techniques, frequency, and channels each tailored to the stakeholders (Held & Westner, 2022). Mitra et al. (2011) develop a portfolio of metrics to measure performance and, through that, communicate value. Smith & McKeen (2003) derive principles for the development and delivery of the ITBV. These frameworks highlight communication as an important step for value management. However, they do not outline how to overcome communication barriers and conduct strategic conversations. They propose factors such as a common language (Held & Westner, 2022) or B/IT structures for joint IT investment evaluation (Smith & McKeen, 2003). Riedinger et al. (2023) summarize them into success factors to facilitate effective ITBV communication. These concepts, however, lack the operationalization of communication and BITA. Studies reveal that CIOs struggle to implement a structured communication process, focusing on a strategic content and demonstrating ITBV

(Held & Westner, 2022; Riedinger et al., 2023). We address this gap in our research question: *How to design a dialogue format between business and IT stakeholders to align strategic IT business value?*

3. Action design research (ADR)

Our research focuses on effective B/IT communication and the perception of ITBV. This requires different, practical perspectives. ADR offers a means of addressing this, as it assumes that knowledge comes from various sources and insights of researchers and practitioners with wide adoption in IS research (Cronholm & Göbel, 2022). We apply ADR following four stages as proposed by Sein et al. (2011): Combining design and action research, ADR focuses on problems encountered in specific organizational settings and generates prescriptive knowledge about a class of similar practice-inspired problems by building IT artifacts, e.g. methods. The first stage (1) is problem formulation (PF). During PF, it became apparent that factors such as corporate culture and organizational structure influence ITBV communication (Riedinger et al., 2023) and to design a dialogue format selecting several organizations would increase the reliability of our results (Yin, 2014). This leads to an iterative ADR procedure with three organizations in the second stage (2), based on an initial, theory-ingrained design. This stage 2 describes the building the artifact, intervention, and evaluation (BIE). With organizational intervention as primary source of innovation, alpha versions, deployed initially in a limited context, were challenged; subsequent beta versions were integrated into a broader organizational context. The BIE cycles (Figure 1), with realized artifact designs, are followed by reflection and learning (RL, 3) at the end of each ADR project. Data from BIE cycles was constantly analyzed, and reflected on the problem frame, to derive design principles (DP). Both stages 2 & 3 are outlined in chapter 4. The formalization of learning (FL) as final stage (4, chapter 5) generalizes the results. (Sein et al., 2011)

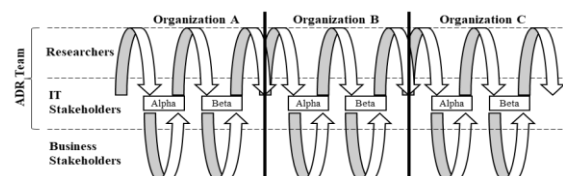


Figure 1. BIE cycles adapted from Sein et al. (2011)

3.1. Settings for practice-inspired research

For our iterative ADR projects, we followed a multiple-cases embedded design to select three organizations and several business units within each for

the development of the artifact (Yin, 2014). Table 1 presents the details for these settings and ADR stages. We ensured that the initial problems discovered are comparable instances of our class of problems i.e. a lack of standardized formats to discuss strategic use of IT as well as communicate IT's business value, but nevertheless represent a variation concerning industry and size to design a widely applicable artifact.

In our ADR projects, we identified three different participants: the researchers and IT stakeholders (ITS), forming the ADR team, and business stakeholders (BS). The ITS vary depending on the IT department structure each organization. The initially invited BS have leading function in their area, budget responsibility, and decision rights, however, they include operative staff if required. Prior to each ADR project, we triangulated various data sources to understand the situation (see Table 1) and problem of each organization (Yin, 2014). Sources of evidence were expert interviews, focus groups, and gathered information from protocols and documents of IT management.

Table 1. Three organizational settings.

Name	OrgA	OrgB	OrgC
Industry	Machinery	Engineering	Tourism
Staff	33.000	6.400	~ 600
Situation	- new IT strategy: goal to establish the IT unit as business partner. - at that time: no existent strategic communication - resulting lack of anchoring IT strategy in the business	- contribution of IT not visible to the business. - new OrgB strategy, with IT department's goal to emphasize strategic use and business value of IT and focus on collaboration	- missing digital solutions - IT structures unsuitable for the company's digitalization need - aiming at company's objectives with IT contribution and B/IT collaboration
Time	Apr 20 – Jan 2021	May 21 - Dec 21	June 22 - Aug 23
Researcher	4 (Strategy, BITA, Governance, EA)	3 (Governance, BITA, EA)	2 (EA, BITA)
ITS	CIO, Demand Org., IT Vice Presidents (VPs)	CIO, Head of ITBV, IT Business Partner Org., EA	CIO, Team Lead Applications
Initial BS	Business VPs, Global Process Owner	Business Department Heads	Business Department Heads
Stage 1: PF	IT Strategy Development workshops	Workshops to review IT Strategy	IT Strategy Development workshops
Stage 2: BIE	Alpha: 2 / Beta: 31 dialogues	Alpha: 1 / Beta: 37 dialogues	Alpha: 1 / Beta: 18 & 20 dialogues
Stage 3: R&L	Reflection workshop with the ADR team of each ADR project		
Stage 4: FL	A generic artifact of a strategic business-IT dialogue format with a set of design principles was articulated and positioned		

3.2. Theory-ingrained artifact: B/IT dialogues using capabilities and contingency theory

A principle of ADR research is to present theories in a comprehensible manner and inform the artifacts by theories (Sein et al., 2011). Based on these, the initial design of a dialogue format consists of four steps:

1) Stakeholder Identification: regular communication of Chief Executive Officer (CEO) and CIO on IT's role for the business positively influences the convergence (Johnson & Lederer, 2005). Such communication enables strategic BITA and a joint development of a company (Roses et al., 2015). However, to achieve mutual understanding, also other key executives besides CEO and CIO should be involved (Johnson & Lederer, 2009). To identify these stakeholders, it is essential to consider that they may pursue distinct strategic objectives and have disparate perceptions of the ITBV (Held & Westner, 2022). Thus, a dialogue format should commence identifying the relevant stakeholders as outlined by Held & Westner (2022).

2) Strategy Alignment: stakeholders should know the meaning and perspectives of BITA for mutual understanding (Johnson & Lederer, 2009). Furthermore, the alignment of business and IT strategy is a first step for measuring IT payoffs in the AIAC framework (Kohli & Devaraj, 2004). Following the four perspectives of the SAM builds the basis to share strategic components i.e. vision, driver, and roadmap. This supports a mutual understanding of BITA and aligns both sides, business and IT strategies as an initial part within the dialogues.

3) Capability-based Exchange: Business capabilities (BCs) describe the abilities required by an organization to implement its strategy and accomplish specific tasks and goals (Kohli & Grover, 2008). They are used in the context of communication to develop an understanding of how IT can support business goals (Kohli & Grover, 2008). Establishing a common understanding of the BCs, leads to a BC map which can be used to discuss the contribution of IT for each BC (Held & Westner, 2022). Thus, the capability-based exchange is a third dialogue step, whereof the participants can jointly assess the ITBV and draw implications in the fourth step.

4) Strategic Assessment: Strategic visions of organizations influence the impact of IT. Today, the role of IT can be multifaceted (Schwarz, 2018). This indicates that not one specific strategic use or one measurable value contribution accounts to IT but a contingency depending on the context, the stakeholders, and their perceptions (Mitra et al., 2011). Contingency theory suggests that the effectiveness of organizational structures grounds on specific circumstances rather than an optimal approach. The aim is to identify these contingencies and understand their impact to optimize performance. (Otley, 2016) A framework based on contingency theory to analyze the relationship between strategy and IT is the strategic grid. This portfolio helps management to understand the current and future relevance and impact of IT. (McFarlan et al., 1983)

The contingent nature of IT management implies a differentiation for different environments (Raghunathan et al., 1999). Therefore, the theory and particularly the strategic grid framework was applied in various context in IS: McFarlan et al. (1983) proposed to evaluate the impact of IT on an entire organization. Thereof, organizations can identify the contingencies of their IS positioning and develop IT management strategies (Raghunathan et al., 1999). The strategic grid is also used to examine the CIO/CEO communication, and their perception of the impact of IT (Johnson & Lederer, 2009). In the context of IT governance, the grid was adapted as IT strategic impact grid (Nolan & McFarlan, 2005), used to help board members to determine the appropriate type of IT governance (Bart & Turel, 2010). Peppard & Ward (2016) propose a grid to map single IS applications and derive measures for the application portfolio. Based on these three grids (McFarlan et al., 1983; Nolan & McFarlan, 2005; Peppard & Ward, 2016), we derive a strategic grid to assess and communicate the strategic contribution of IT and thus discuss the contingencies for IT management within the dialogue format (Figure 2).

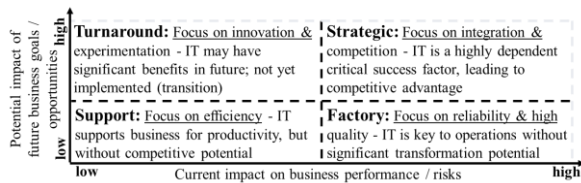


Figure 2. Strat. grid based on McFarlan et al. (1983)

For our research, classifying an entire organization into the grid is not sufficient due to IT’s multi-layered role and business contribution. While application classification serves the application portfolio and operational management (Peppard & Ward, 2016), it does not support strategic alignment. Evaluating BCs instead, aligns with our capability-based exchange and literature on performance or ITBV (Held & Westner, 2022). Deducted from this theoretical foundation, Figure 3 shows the initial steps for the dialogue format including aims for communication and key questions.

Stakeholder Identification		
Identified relevant stakeholders in business and IT with knowledge and decision rights		
Strategy Alignment Common understanding of BITA/ITBV perspectives Common understanding on strategic direction and initiatives of stakeholders Key Question: •What are the vision and the strategic pillars related to the BITA perspectives?	Capability-based Exchange Common understanding of BCs and IT contribution Key Questions: •What are the capabilities you require to execute your strategy? •Where do you use IT in to fulfill those capabilities?	Strategic Assessment Evaluated IT impact for each BC in the strategic grid to show contingent states of IT contribution and take actions Key Questions: •What is the current impact of IT for the described BC? •What is the future impact of IT for the described BC?

Figure 3. Initial artifact design. Source: authors

4. BIE & RL results: Artifact development

In subsequent BIE cycles, the initial design is continuously adjusted. This leads to the realized design of the artifact accompanied by design principles. We present those BIE cycles and the RL for each setting.

4.1. OrgA: Into a dialogue on strategic matters

In OrgA, the ADR team identified a lack of strategic B/IT discussion and difficulties to adjust the IT strategy to business needs. With a first draft of the IT strategy, the ADR project was initiated.

4.1.1. Building, intervention, and evaluation. The project started with a workshop of the ADR team to discuss the implementation of the dialogue format and to identify the required stakeholders. This led to the decision that not only board members should be involved but each VP from business with decision rights and budget responsibility. For the alpha phase, the ADR team identified two business units with a good B/IT relationship. The ADR team informed the VPs from “supply chain” and “treasury” about the initiative and organized a one-day dialogue for each VP in presence.

The dialogue in the alpha version started with the researchers presenting BITA and its benefits. Then the VP was asked to explain the department strategy and initiatives. Based on that, the dialogue participants elaborated a set of BCs required to fulfil this strategy. They then discussed the current state of IT for each BC and identified during intervention that categories would facilitate the discussion. The ADR team elaborated four categories for the IT support based on Peppard & Ward (2016). The next step of the structured dialogue was the assessment based on the strategic grid presented by the researchers. Business and IT stakeholders discussed for each BC the current dependency on IT to fulfill it. And, regarding the business strategy, opportunities for future impact through IT, such as competitive advantages, cost savings, risk minimization, or quality increase. This led to a joint qualitative assessment and resulted in visualizing each BC in the grid’s quadrants.

The ADR team reflected the alpha phase and limited the time frame to three hours for each dialogue and a one-hour review to save time for all participants involved and tested an online version also driven by the aggravation of the COVID-19 pandemic. In addition to the initial set-up, the dialog format was expanded to include a 30-minute briefing in which the CIO informed all dialogue participants. Another learning from the alpha version was the need for preparation of the ADR team to bring a proposal of BCs for each dialogue, and information such as current demands/projects, earlier

bilateral agreements or strategic changes of the application portfolio affecting the business unit.

The following 31 dialogues in the beta version showed that the structured dialogue and the adjustments of the alpha version worked, and, in most cases, a common understanding of the strategic directions and BCs was achieved. A prerequisite for convergence was a motivating work environment with willingness to exchange at eye level. Due to the highly hierarchical culture in OrgA, this required a strong management commitment to the initiative. In contrast to the fears of the CIO, the focus of the dialogues was not on costs and the prevailing cost pressure, but on the opportunities to improve ITBV and implement strategies resulting in capability-based new ideas and strategic demands.

The execution of the 31 dialogues showed that a holistic consolidation and analysis of the results is necessary to derive overall measures and adjust the draft of the IT strategy with regard to the business needs. The ADR team analyzed the results, identified repeatedly mentioned BCs, and compared perceptions of IT contribution to take company-wide measures and connect stakeholders. Based on this, consolidation meetings brought together IT with business VPs from joint organizational entities or fields of work. In these meetings, business VPs presented their strategy and BCs with strategic IT contribution to each other. The view to the overall budget and a joint strategic grid, enabled them to roughly prioritize BCs with related IT demands and commit on strategic initiatives.

4.1.2. Reflection and learning. We reflected the BIE cycles and the application of the artifact and derived several learnings for the design of the artifact as design principles (Table 2). While feedback and results in the dialogues showed an increase in BITA, the ADR also indicated that OrgA ended up with numerous documents recording each business’s strategy, the BCs, and their assessments, where an integrated tool would be helpful. In addition, the research team moderated the dialogues, with no responsible IT stakeholders to continue them. To address these findings and develop the general artifact, we started an ADR project in OrgB.

Table 2. Design principles derived from OrgA BIE.

Design Principles and Description
Stakeholder Governance: Each business stakeholder with budget responsibility and decision right should be involved, not only board members. Organization charts can be helpful to select them.
BC Basis: The exchange should focus on BCs to keep the strategic level of discussion on the strategic role of IT. Categories assist the assessment of the current IT support for each BC: ok – IT support is stable and satisfying; current project – a current (IT) project changes the execution of the BC; optimize – there is optimization potential of current IT support; future – IT support should be renewed/ an innovative IT idea exists

Strategic Grid View: Guiding questions support the categorization in the grid; participants give individual estimates for the questions and then jointly evaluate and discuss IT contribution for each BC.
Exchange Environment: Willingness to participate should be intrinsic and IT related, following the SAM perspectives, but also motivated by management attention. Hierarchies should be overcome to allow discussion at eye level.
Time Need: 30min briefing, 3h each dialogue, 1h review
Continuous Evolution: Available information such as current IT demands/projects, earlier bilateral agreements of business and IT stakeholders should be prepared and included in the dialogue.
Follow-Up Commitments: Overall results should be analyzed to compare results, discuss priorities, and jointly derive commitments.

4.2. OrgB: From cost to value discussion embedded into management processes

OrgB started with a pre-project and identified the established business partner role as B/IT interface. The business partners discuss IT support mainly individually and on an operational level, which hampers comparison and strategic view. This led to set up the BIE stage.

4.2.1. Building, intervention, and evaluation. OrgB initialized the project and communicated the initiative based on their IT strategy. After the identification of the required business stakeholders, these were invited for a briefing by the CIO. The business partner organization responsible for B/IT-relationship was identified as IT stakeholders to conduct the dialogues supported by the research team. The shortfall of documentation in OrgA led to the decision to document the outcomes of the dialogues in the existing enterprise architecture management (EAM) tool (*LeanIX*) mainly used by the enterprise architect (EA). The EA and the business partners decided to initially use the existing capability catalog based on the tool vendor's best practices.

Based on this initialization, the dialogue format was adapted by the ADR team to set up the alpha version with the customer service department. The steps of the dialogue were performed as designed and the results were documented in the EAM tool (Figure 4) following EA principles such as a uniform way to describe BCs.

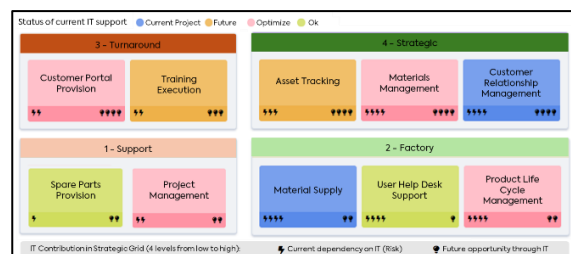


Figure 4: Grid with BCs in EAM tool. Source: authors

In a review session the results were verified within the tool. During the review the participants decided that for the dialogue to be effective, follow-up commitments

should be made on both sides. Therefore, they derived next steps to optimize the IT contribution and assigned tasks such as “organizing a briefing on a new technology for operations in customer service”.

Another alpha version adjustment was to specify the strategy alignment with critical success factors (CSF), required to achieve strategy implementation. They enable a more practical link to the BCs and their strategic assessment. The assessment should further be directly linked to the premise of a less cost-oriented, and more value-oriented view proclaimed in the IT strategy. The ADR team, therefore, derived and communicated management implications based on the strategic grid assessments for expenses in BCs (Peppard & Ward, 2016), and the business/IT collaboration for a BC.

The beta version, including the grid’s implications, the communication of commitments in the review and the integration in the EAM tool, was then applied in design cycles with 37 business stakeholders. To ensure continuation, the ADR team conceptualized within the beta version the integration of the format into the current demand and project portfolio processes. The dialogue with its long-term focus enabled to capture ideas leading to future demands earlier than in existing processes. Current demands or projects were aligned with the BCs and prioritized based on their assessment. This information was used to better plan resources.

The consolidation and analysis of the overall results showed that some current demands/projects required many resources from the IT department even if they only supported BCs in support mode. With the help of the strategic grid as an assessment mechanism, business and IT stakeholders jointly decided to deprioritize some of them and open resources for strategic topics. The ADR team, furthermore, elaborated several perspectives for consolidation with diverse business managers and their staff, not only based on the organizational structure or overlapping BCs as conducted in OrgA, but also considering consolidation clusters based on end-to-end processes, services, technology in use, or focusing on problems or challenges mentioned. Another important perspective focusing on service and application owner in the IT department was the IT internal alignment to share gathered information with IT stakeholders.

4.2.2. Reflection and learning. Reflecting the ADR project in OrgB, we applied the artifact and achieved a uniform approach to the discussion that enabled a long-term perspective and comparison of business needs. We expanded the DPs drawn from the prior ADR project. Repetitions are not named in Table 3. The ADR team conceptualized the consolidation perspectives, IT

internal alignment, and defined the continuation of the dialogue format. However, the research team did not intensively accompany the continuation that took place twice a year, moderated by the business partners and aligned with the budget process. The IT internal alignment was conducted rather in an ad-hoc manner as there was a lack of unity in the IT leadership team. Thus, a learning was that management attention and the overall commitment in the IT department is crucial for the success and continuation of the format and BITA.

Table 3. Design principles derived from OrgB BIE.

Design Principles and Description
Stakeholder Governance: IT department should establish a responsible role for business partnership; skilled and responsible to moderate regular dialogues between business and IT stakeholders.
BC Basis: BCs should be defined following existing information and EA principles and linked to current IT demands/projects.
Strategic Grid View: Each strategic grid quadrant specifies how to deal with IT, to manage expenses, and collaborate for each BC.
Continuous Evolution: The regularity of the format is important and should be aligned with existing structures or processes such as budgeting. The continuation should be owned by the organization.
Follow-Up Commitments: Each dialogue & consolidation session should lead to commitments on both sides – business and IT. IT internal consolidation should organize IT follow-ups.
IT Management Integration: The format should be integrated in existing processes i.e. IT demand and portfolio process, to align strategic input. Dialogues can be supported by tools (e.g. EAM).

4.3. OrgC: Continuous dialogue for BVIT

OrgC, with a small and operation-focused IT department, decided, regarding the digitalization pressure in tourism, to hire a new CIO, include her as board member and raise IT to a more strategic level. Driven by this decision and with her in the ADR team, we applied the dialogue format after an initial analysis of the organizational setting and the status quo of the IT.

4.3.1. Building, intervention, and evaluation. The stakeholder identification showed that the new CIO herself should be part of each dialogue to get to know the business heads with their strategies. Furthermore, based on the findings in OrgB, OrgC introduced an EAM tool (*txture*) to build up EAM and to manage the information gathered within the dialogues. We started the BIE cycles applying the alpha version with one business department. As no adjustments to the design of the dialogue were indicated, we conducted dialogues with 18 business departments. For most participants, it was the first time to talk on business strategy and IT needs to IT managers in a structured way and they appreciated the initiative. The ADR team consolidated all results and commitments and identified the main priorities. The focus of OrgC was to drive digitalization and understand which IT abilities to develop. Based on

that, the ADR team derived an IT roadmap and required adjustments to the IT department structure.

Based on the learnings from OrgB, an aim was to build up expertise for BITA and train the team lead IT applications as owner and moderator of subsequent dialogues. The subsequent dialogue round then started with the adjustment of the participating stakeholders following organizational changes. This showed that a stakeholder identification is not only part of the introduction but must be considered in each round of the dialogue format. In an initialization, the ADR team also adjusted the set-up for the second round, planned six months later and aligned with the budget process: There was a reduced need for briefing as most participants already knew the format. New stakeholders received a short individual briefing. In the initial dialogue, the BCs had already been captured, evaluated, and commitments had been made. Therefore, the time could be limited to a one-hour dialogue. During this, the priority was on verifying and updating the BCs and their evaluation, discussing prior and agreeing on new commitments.

Furthermore, the ADR team elaborated the second dialogue round by introducing further strategic topics. The new focus topic in this round based on state regulations were security precautions including the processing of personal data and risk management. The ADR team decided to bring these topics into the dialogue in a structured way applying key questions for the evaluation of each BC (*Is personal data processed?/ What are the business criticality & probability of failure?*). The structured discussion improved security awareness and enabled the IT department to fulfil regulations. Furthermore, the data expanded the data basis in the EAM tool for analysis and future planning.

4.3.2. Reflection and learning. Reflecting the BIE in OrgC, we learned that the standardized dialogue format achieved a strategic and value-driven communication also in a smaller organizational setting. We observed that the first round of application was a major task that

required a great deal of time and rethinking of the organization structure for both IT and business participants. The new second round showed that the dialogue format initialized a constructive and structured mode of regular communication with less time need in continuation. Furthermore, not only the contribution and strategic development of IT may be addressed but also specific topics such as security or collecting data for EAM. We describe these learnings in Table 4.

Table 4. Design principles derived from OrgC BIE.

Design Principles and Description
Stakeholder Governance: Moderation expertise should be trained for responsible IT managers to partner on eye level.
BC Basis: Besides IT support, BCs may also be discussed and evaluated focusing on other IT-related topics during the dialogue.
Time Need: Subsequent round: 1h for dialogue. Briefing, review, and consolidations can be arranged, if necessary.
Continuous Evolution: Subsequent dialogues require a slightly adapted design of briefings, reviews, and consolidations. They focus on verifying and updating BCs and may include new topics.
Follow-Up Commitments: Analysis and consolidation may vary depending on strategic focus. Small commitments may lead to a strategic IT roadmap and backlog.

5. Formalization of learning and discussion

The outcomes of the BIE cycles and RL stages lead to our formalized artifact that together with the design principles answers the research question of *How to design a dialogue format between business and IT stakeholders to align strategic IT business value?* Figure 5 presents the dialogue format as a process with different steps and outcomes. Table 5 summarizes the design principles supporting generalization and applicability of the format to the class of problems. In the following, we discuss the artifact and the design principles with regard to the class of problems and the theoretical basis: We consider the impact of the continuous dialogue on communication, on structures

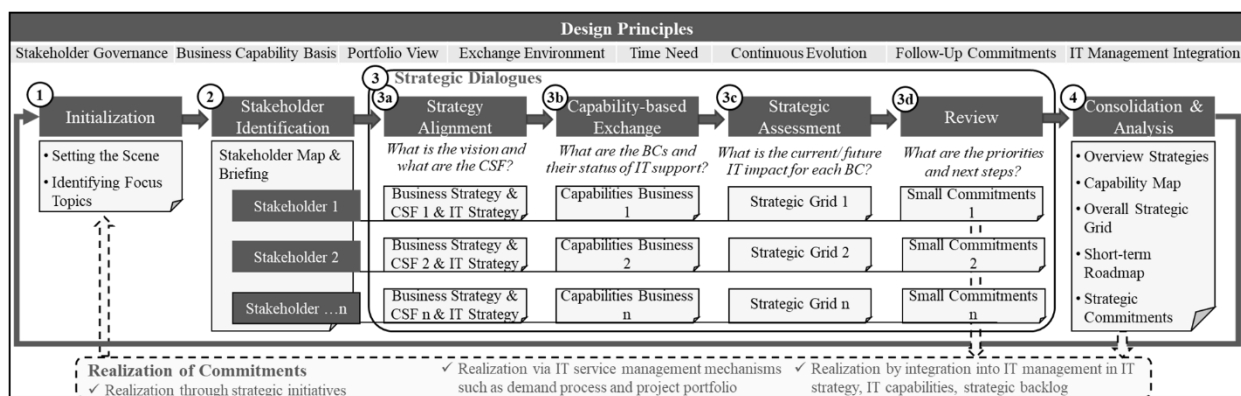


Figure 5. Strategic dialogue format. Source: authors

and B/IT relations, and on BITA operationalization, and examine BITA and ITBV in the strategic grid.

Table 5. Design principles.

Stakeholder Governance
<ul style="list-style-type: none"> • The IT function should establish a responsible role as business relationship manager or EA with moderation skills as interface to organize and moderate the dialogues. • The dialogues should take place between IT and various business stakeholders; management should commit to the initiative. • The participants should possess business and IT acumen to achieve a mutual understanding and own the dialogue.
Business Capability Basis
<ul style="list-style-type: none"> • The discussion about the BC should focus on the strategic level and the evaluation may be guided by categories. • The BCs should be defined following the EA principles especially when it comes to hierarchy levels and number of BC.
Strategic Grid View
<ul style="list-style-type: none"> • The BCs should be jointly assessed and allocated to strategic modes in the strategic grid. To understand the contribution of IT to the BCs the allocation should be guided by questions. • Each quadrant in the portfolio has several implications that should be clear for participants and should be followed when selecting or prioritizing demands and projects.
Exchange Environment
<ul style="list-style-type: none"> • Participants should establish a relationship based on a common language and mutual understanding. This can be fostered by the competence to adapt to the dialogue partner and the usage of BCs as basis for exchange. • There should be a culture of willingness to exchange and discussion on eye level, fostered by a knowledge fit of the participants as well as management attention. Feedback should be actively requested and provided in dialogue.
Time Need
Dialogues should follow a standardized format:
<ul style="list-style-type: none"> • Initial introduction should include 30min briefing, 3h for each dialogue and 1h review. • Subsequent dialogues of 1h on strategic discussions may be included in existing meetings; optional briefing & consolidation. Reviews may be based on minute notes or short meetings.
Continuous Evolution
<ul style="list-style-type: none"> • Regular dialogues should take place about twice a year aligned with annual planning processes. • Changes of BCs should be reviewed in subsequent dialogues and besides the IT support, further topics may be discussed.
Follow-Up Commitments
Different commitments should be derived:
<ul style="list-style-type: none"> • Small commitments: Accord on priorities of IT support and “Homework” of each participant within each dialogue session; transfer of small changes directly into the demand channel. • Strategic commitments: Strategic needs, IT implications and necessity for overall IT initiatives based on the consolidation and analysis of all strategic dialogues; formation of new initiatives with a wider group of participants and company-wide impact. Agreed commitments should be communicated as summaries or in review meetings, tracked, & rediscussed in subsequent dialogues.
IT Management Integration
<ul style="list-style-type: none"> • Existing processes should standardize the way commitments get handled, from strategic dialogues to operational IT execution. • IT stakeholders should share results and required steps with responsible IT colleagues for an IT internal alignment. • An EAM tool that fits the requirements of the organization should be used ensuring integration of dialogue results into the IT landscape and change traceability.

5.1. Communication impact of B/IT dialogues

The artifact was designed in three organizational settings with poor business-IT communication, leading to a lack of BITA. These problems were addressed by conducting the strategic dialogue format realizing an improvement in strategic and value-driven communication in all settings. The dialogue participants perceived to move from cost to value discussions by focusing on BCs and IT contribution. BCs help to understand how IT can support business goals and further link to strategic goals (Held & Westner, 2022; Kohli & Devaraj, 2004). Thus, the participants discussed both operational but also the often-neglected strategic level: They defined small commitments and demands but also shared their vision and assessed the IT support with relation to their strategy. Following prior research, aligning strategies and understanding CSF helps to link IT’s contribution to the strategic vision (Kohli & Devaraj, 2004). The shared understanding of business and IT stakeholders based on BCs promotes a common language. Achieving this common language accounts as a success factor for communication and BITA (Riedinger et al., 2023). Following feedback from participants, the dialogues supported the effective communication of ITBV and strategic IT usage and has changed the culture of collaboration by fostering a willingness to exchange and jointly focusing on problems and opportunities. The two latter organizations continued the structured dialogue format, whereas OrgA could not identify managers to proceed the process and lacked an EAM tool for the sustainable documentation of the results. Both factors have been stressed as success factors for effective communication in prior research (Riedinger et al., 2023).

5.2. Continued dialogue with stakeholders

Our results show that a dialogue format requires further steps beside a single strategic dialogue to foster effective communication. Stakeholder governance ensures that BITA is not only a CEO/CIO topic but a shared responsibility of multiple stakeholders (Johnson & Lederer, 2009). Stakeholder maps support the identification of participants in business and IT (Held & Westner, 2022). They should possess business and IT acumen, relationship and moderation skills as well as decision rights for cooperative governance (Riedinger et al., 2023). The consolidation and analysis step also highlights the shared responsibility. The joint prioritization of topics during consolidation meetings ensures a focus on the most strategically relevant topics. This commitment to discussion is essential for the effective management of limited resources. The overall

picture enables comparison and drives innovation by deriving digital initiatives that affect numerous stakeholders. Besides, this leads to the identification of new topics and perspectives that may be integrated during the initialization step of follow-up rounds. Repeating the dialogues then provides a platform to discuss further topics in a structured way without further set-up effort, e.g. security or risk management. Initializing the dialog format builds the basis for the regularity of communication in further rounds. Thus, the continuous dialogue format relates to the three elements of governance as foundation of BITA. It represents a regular *process* that facilitates decision-making and shared responsibility, it brings stakeholders together to establish new B/IT *structures* as platforms for exchange, and fosters *relational mechanisms* through a common language (De Haes et al., 2020).

5.3. Towards BITA operationalization

The dialogue format aimed to operationalize BITA by strengthening mutual understanding between business and IT stakeholders. Following decades of research, BITA requires various perspectives that may be achieved through strategic conversations (De Haes et al., 2020; Roses et al., 2015). The designed dialogue format establishes such conversations with regular and effective communication as well as the commitments made. Assessing the strategic mode in the strategic grid and the IT support status for each BC provide implications and support prioritization discussions. Alignment also requires the transfer of business strategy into IT strategy and operations, and vice versa. We can relate the dialogue format to these different perspectives according to the SAM (Henderson & Venkatraman, 1993): Small commitments in each dialogue optimize the integration in the demand channel and enable the *strategic execution* of the business strategy by defining the IT roadmap. The format supports the exchange of strategies and the definition of CSF and strategic commitments. On the one hand, the departmental business strategies together with the consolidated results and the strategic assessment of the future role of IT show innovation requirements and give input for IT strategy, IT capabilities and a strategic backlog. This may lead to a *technology transformation* in the IT department based on the needs of the business. On the other hand, the strategy alignment and consolidation give input for business strategies and show opportunities for innovation initiatives driven by IT. This overcomes the often merely supportive role of IT strategy instead of shaping business strategies and enables organizations to identify *competitive potentials* (Kahre et al., 2017). Each ADR project, initiated by the IT departments, was

a step that was appreciated by the business participants. The IT departments are now taking on a role that they should have in times of digitalization (Kahre et al., 2017). Finally, understanding and consolidating the BCs and giving transparency about cross-cutting issues and potentials, the IT department may drive the *IT service level* and thereof better align with the business.

5.4. Expand strategic grid implications

Our ADR projects show that placing BCs in the strategic grid helps B/IT stakeholders to assess contingencies and better understand the consequences for IT management. The grid is not an exact measure, but rather enables the participants to jointly make a qualitative assessment to classify the BCs and derive possible implications. Expanding the implications of each mode in the strategic grid is a further learning from our results. The modes have implications not only for the management of each BC, but also for BITA, and the management of ITBV (Figure 6). The implications for ITBV align with those proposed for investments by Peppard & Ward (2016). While prior research assessed whole organizations (Bart & Turel, 2010) or applications (Peppard & Ward, 2016) using the strategic grid, this study is the first to assess BCs in the grid and thereby react to the strategic and multifaceted role of IT. It follows the contingency theory that there is no single optimal approach to IT management (Otley, 2016). The use of the strategic grid in the dialogues supports the understanding of multiple impacts of IT implying contextual management and collaboration for BITA. Future research could explore which key performance indicators for BCs align with the quadrants and advance theory by mapping the grid from the SAM perspectives.

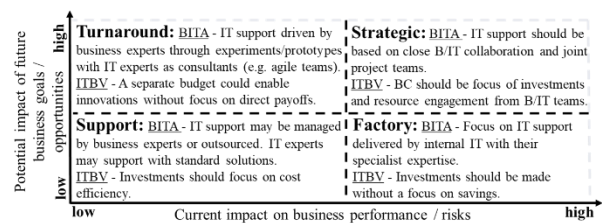


Figure 6. Strat. Grid implications. Source: authors

6. Conclusion

The strategic alignment between business and IT is essential to optimize IT's value contribution. Literature identifies a lack of effective communication on the strategic use of IT in organizations. By applying ADR in three organizational settings, we derive eight design principles to establish an end-to-end process for effective business-IT communication on a strategic

level. The repetitive process involves initialization, stakeholder identification, structured dialogues, and a consolidation and analysis of the results leading to commitments on both sides. Each structured dialogue is centered upon a capability-based exchange and the alignment of strategies and CSF. The assessment of BCs based on the strategic grid ensures a common understanding of IT's contribution and links to the realization of commitments in IT management.

The results, related to governance as basis, contribute to BITA research by operationalizing B/IT collaboration and enhancing effective communication. By applying the strategic grid to assess BCs, the paper also advances research on contingency theory and value communication. For practitioners, the dialogue format offers a practical method to improve strategic collaboration between business and IT stakeholders.

The study also has limitations. First, the study only considers companies with a traditional organizational structure and a group IT department. Future research could investigate the format's applicability in the context of integrated business-IT functions and its impact on alignment and communication. Thereby, the changing role of IT in digitalization should be highlighted. Furthermore, the format could also be applied in the context of other supportive functions. Second, it was identified that focus topics such as risk management may be addressed in the dialogue. Future studies should examine whether the strategic dialogue format is also applicable for other topics such as enterprise architecture or specific technologies. Third, while the dialogue format was designed in three organizational settings, further evaluation of the generalized outcomes in an independent setting with similar challenges is of interest. Thereby, a focus should be on the influence of and for organizational cultural.

7. References

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