# Generative AI Value Creation in Business-IT Collaboration: A Social IS Alignment Perspective

#### Research Paper

Lukas Grützner<sup>1</sup>, Moritz Goldmann<sup>1</sup>, Michael H. Breitner<sup>1</sup>

<sup>1</sup> Leibniz Universität Hannover, Information Systems Institute, Hannover, Germany {gruetzner, breitner}@iwi.uni-hannover.de {moritz.goldmann}@stud.uni-hannover.de

**Abstract.** The increasing integration of GenAI in organizations is reshaping business-IT collaboration. While previous research has focused on strategic and organizational IS alignment, the social dimension, embodying communication, mutual understanding, and collaboration, remains underexplored. Based on a literature review (n = 64), an expert survey (n = 61), and partial least squares - structural equation modeling, this study provides a theoretical foundation and empirically assess the impact of GenAI on business-IT collaboration. Findings indicate that GenAI improves structured knowledge sharing, formal business-IT interactions, and common language development. It does not significantly impact informal interactions, emphasizing the need for human-driven trust and collaboration. These findings contribute to IS alignment, digital leadership, and AI competency development, highlighting the need for management to strategically integrate GenAI while maintaining leadership-driven interpersonal engagement.

Keywords: Information systems alignment, social, GenAI, PLS-SEM

#### 1 Introduction

The rise of general-purpose IT tools, such as Generative Artificial Intelligence (GenAI), and the growing degree of process automation and autonomy in organizations has amplified the need for value-added information systems (IS). Digital transformation has resulted in information technology (IT) becoming a central driver of business innovation, efficiency, and competitiveness, requiring the alignment of business and IT (Johnson et al. 2024). Achieving business value from IT investments is contingent on the alignment of IS with business strategies, processes, and objectives (Benbya et al. 2019). IS alignment is defined as a co-evolutionary process that involves the orientation, integration, and connection of business and IT within intra- and extraorganizational environments, covering strategic, organizational and social dimensions (Grützner et al. 2024; Llamzon et al. 2022). The strategic dimension ensures that IS strategy aligns with business strategy to maximize IT's strategic value (Horlach et al. 2016; Williams et al. 2018). The organisational dimension examines the integration of IS infrastructures with

an organization's business models and processes (Llamzon et al. 2022). The social dimension highlights the impact of relationships, shared values, and mutual understanding between business and IT leaders (Schlosser et al. 2015). Relationships represent the frequency and quality of interactions and the level of trust, between business and IT leaders. Shared values refer to aligned beliefs about the role and goals of IT within the business, captured through agreement on priorities and cooperation norms. Mutual understanding is the degree to which IT and business leaders comprehend each other's roles, challenges, and terminology (Schlosser et al. 2015; Leidner et al. 2017).

Despite the proven importance of IS alignment in strengthening organizational resilience, efficiency, and business value creation, misalignment remains a critical challenge (Llamzon et al. 2022). Research has demonstrated that poor IS alignment reduces the benefits of IT investments, limits strategic agility, and contributes to inefficiencies in business operations (Luftman et al. 2017). The social dimension of IS alignment has gained increasing importance as organizations recognize that technical integration alone is insufficient for achieving digital transformation success (Grützner et al. 2024; Llamzon et al. 2022), specifically, how business-IT collaboration, shared understanding, and communication influence IS alignment success (Williams et al. 2018).

The increasing adoption of GenAI in management has the potential to transform business-IT communication, knowledge exchange, and decision-making (Feuerriegel et al. 2024; Ooi et al. 2023). GenAI enables autonomous analysis of data, generation of complete reports, and provision of technical and business knowledge (Banh and Strobel, 2023). Understanding GenAI's impact on social IS alignment is critical to assess whether AI-driven technologies complement or disrupt traditional social business-IT alignment mechanisms. Business and IT leaders must understand how to adapt their digital strategies, leadership approaches, and communication frameworks to reflect effective incorporation of GenAI. To address this research need, we investigate the extent to which GenAI impacts social IS alignment. This study is guided by the research questions (RQs):

**RQ1**: What are the key elements that comprise the concept of social IS alignment? **RQ2**: How are the social IS alignment key elements influenced by GenAI?

While prior research has established the importance of strategic and organizational IS alignment, this study analyzes the role of GenAI in the social dimension of IS alignment to provide an empirical basis for understanding the role of GenAI in shaping the future of social business-IT collaboration.

To address our RQs, we integrate theoretical and practical findings. First, we review relevant literature (n = 64) to provide theoretical background on the elements of social IS alignment. We then identify potential GenAI implications and develop our model and hypotheses in Section 2. Section 3 details the analytical process, which is grounded in an international expert survey (n = 61), and presents the results and findings. In Section 4, we discuss our key findings. We draw implications, recommendations for research and management, identify limitations, and provide an outlook on further research before concluding.

#### 2 Literature Review

#### 2.1 Literature Search and Analysis

A systematic literature review was conducted in accordance with the methods outlined by Watson and Webster (2020) and von Brocke et al. (2015). The literature review was conducted using database search, supported by AI and graph-based tools to enable more efficient and effective accumulation of relevant literature (Ngwenyama and Rowe 2024). The scope of our review is framed around our RQs, with an emphasis on components of social IS alignment and the impact of GenAI on IS alignment. First, we identified important seed papers using Google Scholar supported by the AI-based tools Scispace and Consensus. Four articles each were identified for social IS alignment and GenAI impact (see Online Appendix Table 2. Literature Search). The selection of seed articles was based on their relevance and high annual citation rates. Utilizing these articles (n = 8) as a foundation, a similarity search was conducted on Google Scholar and on the graph-based tool Research Rabbit, to efficiently obtain an initial selection of literature. After examination of relevance by title and abstract and deletion of duplicates, we obtained n = 36 articles. Subsequently, a backward (n = 23) and forward search (n = 5) was executed, resulting in n = 44 articles addressing social IS alignment elements and n = 20 articles addressing the impact of GenAI on social IS alignment. This comprehensive approach led to the identification of a total of n = 64 final papers. A concept matrix was developed in iterative steps using an inductive approach (Webster & Watson, 2002). Relevant concepts of social IS alignment and GenAI impact were identified in the articles. New concepts were gradually added, or existing concepts were revised, summarized or removed after new articles were analyzed. The literature was analyzed on a rolling basis until all articles had been analyzed and classified at least once. This matrix categorized the identified literature based on social IS alignment elements and GenAI impact, resulting in the identification of five primary concepts and 18 secondary concepts (see Online Appendix Figure 2. Webster-Watson matrix and Table 3. Complete reference list).

### 2.2 Social IS Alignment

Social IS alignment is defined as the degree of mutual understanding, collaboration, and shared commitment between business and IT leaders regarding the role, goals, and value of IS within an organization (Reich & Benbasat 2000; Llamzon et al. 2022). It characterizes the extent to which business and IT leaders share a common perspective on IS goals, value, and role within the organization (Reich & Benbasat 2000), accomplished through continuous dialogue, cross-functional interactions, and joint decision-making (Hu et al. 2023; Preston & Karahanna 2009). Social IS alignment is a critical enabler of effective IS integration, ensuring that business and IT strategies are jointly understood and operationalized to maximize organizational performance (Grützner et al. 2024). Successful social IS alignment is primarily comprised of three key structural components, i.e. knowledge and communications systems, shared domain knowledge, and mutual language (see Online Appendix Figure 3).

Knowledge and Communication Systems: This construct refers to the formal and informal mechanisms that enable ongoing information exchange and coordination between business and IT leaders (Luftman et al. 2017). Continuous interaction fosters trust, improves coordination, and aligns business and IT strategies (Luftman et al. 2017). Communication emerges as the predominant driver of social IS alignment (Hu et al. 2023), fostering the exchange of knowledge concerning environmental, priority, and risk factors (Reich & Benbasat 2000). Knowledge and Communication systems consist of two distinct components: structural systems, encompassing formal mechanisms, and social systems, characterized by informal interactions (Preston & Karahanna 2009). Structural systems refer to formal coordination structures, reporting relationships, and defined communication channels (Preston & Karahanna 2009). Corporate hierarchies influence communication efficiency between IT and business leaders (Llamzon et al. 2022). The representation of Chief Information Officers (CIOs) within the top management foster strategic alignment, improve IT-business dialogue, and elevate IT executives' communication skills (Schlosser et al. 2015). Top management (e.g., CIO) shapes strategic alignment by enabling formal structures, establishing executive sponsorship, and defining the strategic role of IT (Preston & Karahanna 2009). Middle management operationalizes alignment by translating strategy into practice and facilitating daily structural cross-functional collaboration (Leidner et al. 2017). The absence of harmonized planning processes or inadequate interdisciplinary collaboration between business and IT leaders can compromise alignment on IT and business objectives, resulting in a disconnection between business and technology strategies (Maharaj & Brown 2015). Direct reporting structures amplify interaction opportunities and enhance mutual IS understanding (Wu et al. 2015). Social systems refer to informal interactions, including personal discussions and networking, that foster collaboration and knowledge sharing (Preston et al. 2006). Lunch meetings or shared activities, enables business and IT managers to discuss key topics and coordinate efforts (Liang et al. 2017). Informal interactions are a medium for keeping both sides informed of business opportunities, technical challenges, while also facilitating interpersonal relationships and trust (Preston et al. 2006, Hu et al. 2023).

Shared Domain Knowledge: Shared domain knowledge reflects the extent to which business executives understand IT capabilities and IT executives grasp business processes and strategic priorities (Reich & Benbasat 2000). A lack of domain knowledge and a deficiency in shared mutual knowledge between business and IT management hinders IS alignment and impedes the development of a mutual language (Alaceva & Rusu 2015). The existence of shared domain knowledge enhances mutual understanding, communication, and joint planning between business and IT (Alaceva & Rusu 2015). Business executives with IT expertise contribute to IS innovation, while IT managers with business knowledge effectively align IS with corporate strategy. Conversely, business leaders lacking IT knowledge encounter difficulties in translating requirements into technical terms, while IT leaders without business knowledge face analogous challenges (Alaceva & Rusu 2015). CIOs with strong strategic IT knowledge are better positioned to advise top management on IT investments, positively influencing

IS alignment (Armstrong & Sambamurthy, 1999). Complementary knowledge is as important in mid-level management as it is at the executive level. Mid-level managers who understand both IT and business domains facilitate better communication and strategic alignment (Leidner et al. 2017).

Mutual Language: This construct refers to the use of a shared vocabulary between business and IT leaders that supports clear communication and reduces semantic barriers (Luftman et al. 2017). Language is of key importance in both social relationships and business interactions, shaping the exchange of information and collaboration (Luftman et al. 2017). A shared vocabulary between business and IT prevents misalignment and fosters mutual understanding. Gaps in communication due to differing terminologies may result in a perceived lack of cooperation, and ineffective requirements exchange. Business leaders often encounter difficulties in articulating IT needs, while IT fails to probe sufficiently, thereby reinforcing misalignment (Alaceva & Rusu 2015). IT professionals, most notably CIOs, are required to communicate in business terms (Luftman et al. 2017). The utilization of a mutual language enhances collaboration between IT and business, particularly at senior and middle management levels, mitigating semantic gaps across departments (Kashanchi & Toland 2008). The alignment of top management fosters a mutual understanding between CIOs and business executives (Preston & Karahanna 2009).

#### 2.3 Impact of GenAI on Social IS Alignment and Hypotheses

GenAI can be defined as an advanced form of artificial intelligence that creates text, images, and audio based on patterns learned from large datasets (García-Peñalvo & Vázquez-Ingelmo 2023). It performs tasks autonomously, such as data analysis, report generation, and content creation, using text, voice, or image-based prompts (Banh & Strobel 2023).

Impact on Productivity and Organizational Structure: GenAI increases productivity across industries (Dwivedi et al. 2023). It leads to enhanced efficiency in customer support (Brynjolfsson et al. 2023) and professional writing tasks (Noy & Zhang 2023). Research indicates that AI-assisted employees resolve tasks such as customer support cases more expeditiously (Brynjolfsson et al. 2023) and complete professional writings with greater accuracy and in less time (Noy & Zhang 2023). A survey of managers revealed that 91% anticipate an increase in productivity (Dutt et al. 2024). Participants in another user survey reported that it enhances efficiency (84%), improves quality (67%), and facilitates communication (64%) (Cardon et al. 2024). However, the integration of GenAI into business processes is not without challenges. These include a lack of standardization, complex IT integration, and significant investment (Agrawal 2023; Li et al. 2021). The growing significance of IT in the context of GenAI application may lead to an increased demand for CIOs within top management teams (Bendig et al. 2022), impacting power structures and reporting relationships (Li et al. 2021). Greater needed IT involvement is anticipated to enhance both structural and social knowledge-sharing mechanisms, fostering closer business-IT collaboration.

H1: GenAI positively impacts structural knowledge and communication systems.

H2: GenAI positively influences social knowledge and communication systems.

Impact on Knowledge Acquisition and Management: GenAI modifies the process of information retrieval, enabling immediate access to relevant data and displacing conventional search engines in research contexts (Korzynski et al. 2023; Ooi et al. 2023; Jo & Park 2023). It functions as a virtual expert, delivering specific answers with greater efficiency than conventional search engines (Ooi et al. 2023). In organizational settings, GenAI enhances knowledge management by extracting, analyzing, and personalizing information from both structured and unstructured data (Benbya et al. 2024). Companies train GenAI on internal documents, emails, and meetings to tailor responses to organizational needs. These tools provide employees with relevant knowledge and facilitate access to collective expertise. GenAI is expected to enhance domain knowledge for both business and IT executives, strengthening shared understanding in IS alignment (Alavi et al. 2024).

**H3:** GenAI positively influences IT knowledge among business executives at middle and top management levels.

**H4:** GenAI positively influences IT knowledge among IT executives at middle and top management levels.

**H5:** GenAI positively influences business knowledge among IT executives at middle and top management levels.

Impact on Business Communication: GenAI exerts a considerable influence on workplace communication, optimizing interactions among employees (Feuerriegel et al. 2024). It enhances written communication by supporting drafting, editing, and optimizing business emails and reports (Alavi et al. 2024). Automated responses, text generation, translation, and tone adjustment further boost efficiency (Dwivedi et al. 2023). Surveys indicate that 64% of employees and 71% of regular users believe GenAI improves communication (Cardon et al. 2024). It helps standardize corporate language and enhance mutual understanding between business and IT managers, facilitating clearer communication in emails and meetings.

**H6:** GenAI has a positive impact on the mutual language used by business and IT executives at middle and top management levels.

#### 3 Hypothesis Evaluation

# 3.1 Survey Data Collection and Partial Least Squares Structural Equation Modeling

In accordance with extant theoretical literature, 19 items were prepared to measure content validity of the constructs (see <u>Online Appendix</u> Table 4). To obtain the sample for this study, an online survey was conducted, following the framework provided by Brace (2018). A pilot test was conducted with a small group to identify any unclear points or

issues. To target potential respondents, executives were contacted via the LinkedIn, Xing platforms and the authors' network. To reduce sampling bias, the survey was distributed to IT and business executives across multiple countries and a variety of industries. From August to September 2024, the survey was sent to approximately 1100 individuals, yielding 65 responses from 5 countries, which corresponds to a response rate of approximately 5.9%, and a total of 61 complete surveys. To test for bias, Harman's single-factor test indicated that the first factor emerged for only 33.5% of the variance, which is less than the highest cut-off value of 50% (Podsakoff et al. 2003). For detailed characteristics of the sample (n = 61) see Online Appendix Table 5.

Structural equation modeling (SEM) is a statistical method used to analyze the relationships among observed variables and latent constructs, facilitating the evaluation of complex theoretical models with both direct and indirect effects (Hair et al. 2019). SEM incorporates multiple regression equations and facilitates concurrent analysis of numerous dependent variables (Mertens et al. 2017). Partial Least Squares (PLS)-SEM, a variance-based approach, is suited for exploratory research, particularly in cases involving small sample sizes and non-normal data as it focuses on maximizing the variance explained in the dependent variables (Hair et al. 2019). The method possesses a high degree of flexibility, rendering it an optimal approach for the evaluation of hypotheses and the analysis of relationships within complex datasets (Gefen et al. 2011). It utilizes a systematic approach for the examination of relationships between variables and has found considerable application in the domain of IS research (e.g., Rana et al. 2022). The PLS-SEM analysis conducted in this study comprises six hypotheses (H1-H6) that evaluate the impact of GenAI on the primary elements of social IS alignment. The technical implementation of PLS-SEM was executed using the open-source Python programming environment. The primary libraries employed in this analysis included pandas for data manipulation, matplotlib for visualization, and plspm for conducting the analysis (Sanchez et al. 2024).

#### 3.2 Model Analysis, Results and Findings

This study examines the six hypotheses (H1–H6), each representing a proposed relationship between GenAI usage and the three key components of successful social IS alignment. To empirically test these hypotheses, we employed the PLS-SEM method. The model was analyzed in Python. The initial phase of the data analysis entailed the cleansing and validation of the survey data, which comprised a total of 61 observations, utilizing the pandas library. The latent constructs were modeled using reflective measurement items drawing on the plspm library. The evaluation process comprised two distinct phases: initial assessment of the measurement model, followed by a subsequent evaluation of the structural model. The visualization of results was implemented using the matplotlib library. The assessment of the measurement model proceeded with the estimation of the convergent validity of all items of the constructs. To ensure statistical significance and stability of the model, nonparametric bootstrapping with 5.000 replications was employed to estimate the path coefficients and test the hypotheses (see Online Appendix Table 6. Measurement Properties; Hair et al. 2017). The loading factors (LF) and communalities for each item were estimated. The findings revealed that

the majority of item LFs exceeded 0.70, with Communalities surpassing 0.50, suggesting that the items consistently measured the latent variables (Chin 2010). However, Item StKCs1 exhibited a low LF, indicating a less reliable measurement. Nevertheless, it was retained as it was considered crucial for assessing the integration of IT managers at the highest management level. To assess the reliability and validity of the constructs, the Composite Reliability (CR) and Average Variance Extracted (AVE) of all the constructs were estimated, and Cronbach's alpha (a) was measured to estimate the consistency of the constructs. The CRs, AVEs, and Cronbach's alpha ( $\alpha$ ) for all constructs were found to be greater than 0.60, 0.50, and 0.60, respectively (Hair et al. 2017). The robustness of the measurements was found to be satisfactory, thereby ensuring their consistency. The assessment of discriminant validity was conducted through two methodologies: the Fornell-Larcker criterion and the analysis of cross-loadings (Hair et al. 2017). The Fornell-Larcker criterion, which stipulates that the square roots of all the AVEs must exceed the corresponding bifactor correlation coefficients, was employed to ascertain the adequate discriminant validity of our constructs (Hair et al. 2017). The cross-loadings indicated that all items exhibited higher loadings on their intended constructs, thereby providing further support for discriminant validity (see Online Appendix Figure 4, 5). However, for the Structural Knowledge and Communication Systems (StKCs), the corresponding bifactor correlation coefficient of StKCs1 was elevated, suggesting the possibility of measurement overlap with other constructs. To test our six hypotheses, we calculated our structural model. The complete results, including the coefficients of determination  $(R^2)$ , path  $(\beta)$  coefficients, and p-values, are presented in Table 1.

Table 1. Structural Model

Hypothesis	$(R^2)$	Original β- Values	Mean β-Values	Original t- Values	Mean t-Values	p> t	Remarks
H1: GenAI → StKCs	0.07	0.25	0.29	2.01	1.65	0.048276	Supported*
H2: GenAI → SoKCs	0.04	0.19	0.21	1.51	1.34	0.135318	Not Supported
H3: GenAI → ITKBM	0.12	0.34	0.36	2.83	2.87	0.006406	Supported**
H4: GenAI → ITKIT	0.11	0.32	0.34	2.64	3.30	0.010816	Supported*
H5: GenAI → BKIT	0.07	0.26	0.27	2.12	2.22	0.037848	Supported*
H6: GenAI → ML	0.12	0.34	0.35	2.78	3.23	0.007243	Supported**

Significance: \*\*p < 0.01; \*p < 0.05

This study has formulated six hypotheses, which were analyzed using the structural model (see Table 1). Five hypotheses were supported, two at the \*\*p < 0.01 significance level and three at the \*p < 0.05 level. The validated research model, which examines the impact of GenAI on social IS alignment structures, is shown in Figure 1. This study indicates that knowledge and communication system elements are among the least affected by GenAI. GenAI could moderately affect StKCs (H1), with a path coefficient

of 0.29 at the level of significance p < 0.05 (\*), suggesting that GenAI leads to increased IT management involvement in structural knowledge and communication systems. Hypothesis H2 is not supported, indicating that GenAI does not have a substantial impact on social knowledge and communication systems. In contrast to formal knowledgesharing, informal social knowledge sharing, such as discussions, networking, and interpersonal interactions, is not notably impacted by GenAI usage. GenAI significantly improves business-IT knowledge exchange, highlighting the importance of management leveraging GenAI to improve knowledge on IT and business processes, bridging knowledge gaps and enhancing collaboration between IT and business. The statistical significance (p < 0.01\*\*) of GenAI's moderate to high  $\beta$  value of 0.36 indicates a substantial impact on ITKBM (H3). The effective contribution of continued GenAI use, such as AI-driven research assistants and automated insights, to business leaders' understanding of IT concepts and terminology is noteworthy. The findings further suggest a potential influence of GenAI on ITKIT and BKIT, as evidenced by moderate to high  $\beta$  values of 0.34 and 0.27, respectively, at a significance level of p < 0.05 (\*). GenAI enables IT leaders to deepen their technical expertise and proactively stay updated with technological advancements and trends. AI-generated business insights, reports, and predictive analytics augment IT leaders' understanding of business strategy and decision-making processes. However, traditional structured learning remains a fundamental component of professional development. Hypothesis H6, with a β-value of 0.35 at a high significance level of p < 0.01(\*\*), indicates a significant role for GenAI in fostering a mutual language between business and IT executives. The utilization of GenAIassisted communication tools, document standardization, and real-time language adaptation contributes to the standardization of corporate language.

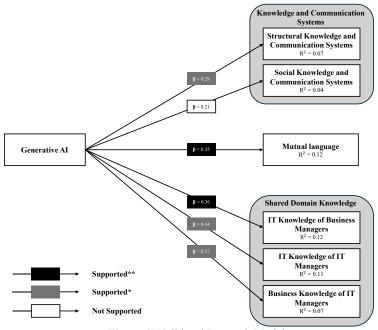


Figure 1. Validated Research Model

In terms of  $R^2$  values, it appears that GenAI could explain StKCs, ITKBM, ITKIT, BKIT, and ML to the extent between 7% and 12%. This suggests that GenAI is a significant influence factor on social IS alignment structures. These results highlight the potential of GenAI in narrowing knowledge gaps between business and IT, reinforcing structured communication, and standardizing language across organizational entities. However, it is crucial to note that other elements of the five constructs, such as collaboration workshops, industry experience, or training programs, are necessary and must be considered when considering successful social IS alignment.

#### 4 Discussion

The findings of this study show that GenAI significantly influences the three key elements that comprise social IS alignment. Specifically, GenAI enhances shared domain knowledge, corporate language fostering, and structured communication, but its impact on informal interactions remains limited. Corporate GenAI usage increases formal interactions between business and IT executives, particularly through structured communication systems (H1). This suggests that GenAI supports the institutionalization of standardized communication flows and enhances the visibility of IT in strategic processes. The growing significance of IT management in the context of GenAI application shifts existing power structures and reporting relationships, indicating a growing need for closer business-IT collaboration. This observation is consistent with the findings of research on IS alignment and governance, which underscores the increasing integration of IT into the creation of corporate value and the evolution of the role of IT leadership (Grützner et al. 2024; Llamzon et al. 2022). It is imperative for IT leadership to foster the integration of AI-driven tools to enhance decision-making processes, align IT functions with corporate strategy, and facilitate enterprise architecture transformation. While GenAI increases interactions and time efficiency (Ooi et al., 2023), it does not significantly strengthen nor weaken informal, cross-divisional interactions between business and IT managers (H2). This finding contradicts concerns that AI might reduce human collaboration (Alavi et al. 2024), and highlights that GenAI cannot replace trustbuilding, shared norms, or interpersonal relationships. GenAI does not replace humandriven social interactions, which are essential for collaboration in digital ecosystems. This observation signifies that social interactions, such as networking and the exchange of organizational culture through unstructured dialogue, persist in their crucial role for a successful alignment of IT and business (Hu et al. 2023). The findings confirm the hypotheses that GenAI significantly amplifies IT knowledge among business executives (H3) and IT and business knowledge among IT executives (H4 and H5). These results support the interpretation that GenAI contributes to knowledge democratization by making complex information more accessible while reducing the cognitive and time barriers associated with cross-domain learning. These results are consistent with previous studies that have emphasized the role of GenAI in supporting information and knowledge acquisition (Jo & Park 2023; Alavi et al. 2024). Shared domain knowledge between business and IT leaders contributes to successful social IS alignment (Leidner et al. 2017), highlighting that GenAI indirectly strengthens social IS alignment through

its effect on knowledge acquisition. However, it is important to note that AI does not negate the necessity for formal education, training, and peer collaboration, as evidenced by the moderate  $R^2$  effect size. Furthermore, our findings indicate a positive contribution of GenAI to the development of a mutual language between business and IT executives (H6). The utilization of AI-driven standardized terminology, text generation, and language optimization mitigates communication gaps (Dwivedi et al. 2023). This finding is consistent with the research by Cardon et al. (2024), which suggests that GenAI enhances cross-functional understanding and reduces ambiguity in IT-business interactions.

## 5 Implication, Limitations and Further Research

This study makes several theoretical and managerial contributions to social IS alignment theory. We synthesize knowledge about the three key elements that drive successful social IS alignment and examine the impact of management's use of GenAI on it. Social IS alignment is an essential for successful IT-business cooperation (Llamzon et al. 2022; Grützner et al. 2024). The growing importance of GenAI in business-IT cooperation underscores the need for ongoing digital skill development within organizations. To capitalize on the potential of GenAI, researchers must acknowledge and adapt to the evolving IT-business power structures (H1), more efficient knowledge access (H3-H5), and the standardization of language (H6).

Companies must leverage GenAI to enhance knowledge creation and exchange, leading to more effective execution of digital strategies by executives. The management of AI competency emerges as a critical component of digital transformation, necessitating the development of AI literacy programs, employee training in AI-driven decision support, and the integration of AI tools into daily business processes (Iaia et al. 2023; Feuerriegel et al. 2024). GenAI improves business-IT communication. Integrating GenAI into formal communication systems enhances structured coordination, such as standardized reporting, AI-supported meeting summaries, or agenda generation (Feuerriegel et al. 2024). Organizations must leverage GenAI to facilitate the acquisition of business and IT-related knowledge (H3-H5). This involves the provision of targeted content to address both general and organization-specific knowledge domains (Iaia et al. 2023). However, informal collaboration must be actively maintained through leadership engagement (H2).

To assess the impact of GenAI on social IS alignment, a comprehensive literature review was conducted, and data was collected from executives. However, the literature review may not have been entirely exhaustive, as it was limited to literature within scope of IS alignment. The sample size of the survey may have been subject to geographical and cultural biases, and it was restricted in size (response rate of 5.9%). While we collected data on how executives create value with GenAI in the context of successful IT-business cooperation, further research needs to measure GenAI's long-term impact on governance, IT competency development, and knowledge-sharing. Given the influence of geographical and cultural differences, as well as local legal limitations on the use of GenAI, further research efforts should concentrate on specific regions to

comparatively analyze the different impact of GenAI and identify strategies for optimal usage. As social management structures may vary across different regions, it is essential to customize strategies for GenAI implementation to ensure optimal value creation.

#### 6 Conclusion

This study contributes to theory on social IT-business collaboration and the impact of GenAI usage at management levels on it. We elaborate the key elements of social IS alignment and provide insights on GenAI value creation, while also highlighting its limitations. The study emphasizes the importance of increased IT executives' relevance in top management levels, the usage of GenAI for shared IT and business domain knowledge creation, and the fostering of a mutual language. As GenAI continues to evolve and management increases its regular use, further research must explore how to guide shifting local and global management and communication structures.

#### References

- Agrawal, K. P. (2023). Towards adoption of generative AI in organizational settings. *Journal of Computer Information Systems*, 64(5), 636–651.
- Alaceva, C., & Rusu, L. (2015). Barriers in achieving business/IT alignment in a large Swedish company: What we have learned? *Computers in Human Behavior*, 51, 715–728.
- Alavi, M., Leidner, D. E., & Mousavi, R. (2024). Knowledge Management Perspective of Generative Artificial Intelligence. *Journal of the Association for Information Systems*, 25(1), 1–12
- Armstrong, C. P., & Sambamurthy, V. (1999). Information Technology assimilation in firms: the influence of senior leadership and IT infrastructures. *Information Systems Research*, 10(4), 304–327
- Banh, L., & Strobel, G. (2023). Generative artificial intelligence. *Electronic Markets*, 33(1), 63.
   Benbya, H., Leidner, D. E., & Preston, D. (2019). MIS quarterly research curation on information systems alignment. *MIS Quarterly*, 1–19.
- Benbya, H., Strich, F., & Tamm, T. (2024). Navigating generative artificial intelligence promises and perils for knowledge and creative work. *Journal of the Association for Information Systems*, 25(1), 23–36.
- Bendig, D., Wagner, R., Jung, C., & Nüesch, S. (2022). When and why technology leadership enters the C-suite: An antecedents perspective on CIO presence. *The Journal of Strategic Information Systems*, 31(1), 101705.
- Brace, I. (2018). Questionnaire design: How to plan, structure and write survey material for effective market research. Kogan Page Publishers.
- Brynjolfsson, Erik; Li, Danielle; Raymond, Lindsey R. (2023). Generative AI at Work. Working Paper 31161. *National Bureau of Economic Research*. Cambridge, MA.
- Cardon, P., Fleischmann, C., Logemann, M., Heidewald, J., Aritz, J., & Swartz, S. (2024). Competencies needed by business professionals in the AI age: character and communication lead the way. *Business and Professional Communication Quarterly*, 87(2), 223–246.
- Chin, W. W. (2010). How to write up and report PLS analyses. In Editor: Wynne W. Chin Handbook of partial least squares, 655–690. Springer.

- Deloitte (2024): Now decides next: Insights from the leading edge of generative AI adoption.

  Deloitte's State of Generative AI in the Enterprise Quarter one report. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consulting/us-state-of-gen-ai-report.pdf. Accessed 02.02.2025.
- Dwivedi, Y. K., et al. (2023). Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642.
- Feuerriegel, S., Hartmann, J., Janiesch, C., & Zschech, P. (2023). Generative AI. *Business & Information Systems Engineering*, 66(1), 111–126.
- García-Peñalvo, F., & Vázquez-Ingelmo, A. (2023). What do we mean by GenAI? A systematic mapping of the evolution, trends, and techniques involved in Generative AI. *International Journal of Interactive Multimedia and Artificial Intelligence*, 8 (4), 7–16.
- Gefen, D., Rigdon, E. E., & Straub, D. (2011). Editor's comments: an update and extension to SEM guidelines for administrative and social science research. *MIS quarterly*, iii-xiv.
- Grützner, L., Werth, O., & Breitner, M. H. (2024). IS Alignment in Dynamic Environments: A Comprehensive Framework. Hawaii International Conference on System Sciences.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management* & *Data Systems*, 117(3), 442–458.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2–24.
- Horlach, B. et al. (2016). Bimodal IT: Business-IT alignment in the age of digital transformation. *Wirtschaftsinformatik*, 1–12.
- Hu, H., Wang, N., & Liang, H. (2023). Effects of intellectual and social alignment on organizational agility: A Configurational Theory approach. *Journal of the Association for Information Systems*, 24(2), 490–529.
- Iaia, L., Nespoli, C., Vicentini, F., Pironti, M., & Genovino, C. (2023). Supporting the implementation of AI in business communication: the role of knowledge management. *Journal of Knowledge Management*, 28(1), 85–95.
- Johnson, V., Maurer, C., Torres, R., Guerra, K., Mohit, H., Srivastava, S., & Chatterjee, S. (2024). The 2023 SIM IT Issues and Trends Study. *MIS Quarterly Executive*, 83–124.
- Jo, H., & Park, D. (2023). AI in the Workplace: Examining the Effects of ChatGPT on Information Support and Knowledge Acquisition. *International Journal of Human-Computer Interaction*, 40(23), 8091–8106.
- Korzynski, P., Mazurek, G., Altmann, A., Ejdys, J., Kazlauskaite, R., Paliszkiewicz, J., Wach, K., & Ziemba, E. (2023). Generative artificial intelligence as a new context for management theories: analysis of ChatGPT. Central European Management Journal, 31(1), 3–13.
- Kashanchi, R., & Toland, J. (2008). Investigating the social dimension of alignment: Focusing on communication and knowledge sharing. American Conference on Information Systems.
- Leidner, D., Milovich, M., & Preston, D. (2017). Rethinking IS strategic alignment: A middle management perspective. *International Conference on Information Systems*.
- Li, J., Li, M., Wang, X., & Thatcher, J. B. (2021). Strategic Directions for AI: The role of CIOs and boards of directors. *MIS Quarterly*, 45(3), 1603–1644.
- Liang, H., Wang, N., Xue, Y., & Ge, S. (2017). Unraveling the alignment paradox: How does Business—IT alignment shape organizational agility? *Information Systems Research*, 28(4), 863–879.
- Llamzon, R. B., Ter Chian Tan, F., & Carter, L. (2021). Toward an information systems alignment framework in the wake of exogenous shocks: Insights from a literature review. *International Journal of Information Management*, 63, 102450.

- Luftman, J., Lyytinen, K., & Zvi, T. B. (2017). Enhancing the measurement of information technology (IT) business alignment and its influence on company performance. *Journal of Information Technology*, 32(1), 26–46.
- Maharaj, S., & Brown, I. (2015). The impact of shared domain knowledge on strategic information systems planning and alignment. *South African Journal of Information Management*, 17(1), 1–12.
- Mertens, W., Pugliese, A., & Recker, J. (2017). Quantitative data analysis. A companion, 1–8. Cham, Switzerland: Springer International Publishing.
- Ngwenyama, O., & Rowe, F. (2024). Should we collaborate with AI to conduct literature reviews? Changing epistemic values in a flattening world. *Journal of the Association for Information Systems*, 25(1), 122–136.
- Noy, S., & Zhang, W. (2023). Experimental evidence on the productivity effects of generative artificial intelligence. Science, 381(6654), 187–192.
- Ooi, K., et al. (2023). The potential of generative artificial intelligence across disciplines: perspectives and future directions. *Journal of Computer Information Systems*, 1–32.
- Preston, D., Karahanna, E., & Rowe, F. (2006). Development of shared understanding between the Chief Information officer and top management team in U.S. and French Organizations: a cross-cultural comparison. *IEEE Transactions on Engineering Management*, 53(2), 191–206.
- Preston, D. S., & Karahanna, E. (2009). Antecedents of IS Strategic Alignment: a nomological network. *Information Systems Research*, 20(2), 159–179.
- Podsakoff, P., MacKenzie, S., Lee, J.-Y., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *The Jour*nal of Applied Psychology, 88(5), 879–903.
- Rana, N. P., Chatterjee, S., Dwivedi, Y. K., & Akter, S. (2021). Understanding dark side of artificial intelligence (AI) integrated business analytics: assessing firm's operational inefficiency and competitiveness. *European Journal of Information Systems*, 31(3), 364–387.
- Reich, B. H., & Benbasat, I. (2000). Factors That Influence the Social Dimension of Alignment between Business and Information Technology Objectives. *MIS Quarterly*, 24(1), 81–113.
- Sanchez, Gaston, Laura Trinchera and Giorgio Russolillo (2024). plspm: Partial Least Squares Path Modeling (PLS-PM). R package version 0.5.1.
- Schlosser, F., Beimborn, D., Weitzel, T., & Wagner, H. (2015). Achieving Social Alignment between Business and IT an Empirical Evaluation of the Efficacy of IT Governance Mechanisms. *Journal of Information Technology*, 30(2), 119–135.
- Brocke, J. V., Simons, A., Riemer, K., Niehaves, B., Plattfaut, R., & Cleven, A. (2015). Standing on the shoulders of giants: Challenges and Recommendations of Literature Search in Information Systems Research. *Communications of the Association for Information Systems*, 37(1), 9.
- Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, xiii–xxiii.
- Watson, R. T., & Webster, J. (2020). Analysing the past to prepare for the future: Writing a literature review a roadmap for release 2.0. *Journal of Decision Systems*, 29(3), 129–147.
- Williams, J.A., Torres, H.G. and Carte, T. (2018). A review of the IS strategic alignment literature: A replication study. *Americas Conference on Information Systems*.
- Wu, S. P. J., Straub, D. W., & Liang, T. P. (2015). How information technology governance mechanisms and strategic alignment influence organizational performance. *MIS quarterly*, 39(2), 497–518.