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Sales managers' perceptions of interpersonal communication competence in leading AI-integrated sales teams

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ABSTRACT

Adoption of artificial intelligence (AI) is no longer the issue for most professional organizations—the question is how to integrate it into the functions and organizational processes. Considering the current integration of AI in work processes, the requirements for sales managers' interpersonal communication competence (ICC) are likely to be modified. However, research on sales management competencies is surprisingly scarce. This longitudinal case study investigates sales managers' perceptions of their ICC needs in leading AI-integrated sales teams in the financial sector. During the years 2019–2024, 35 expert interviews with sales managers were collected from one of Scandinavia's largest financial groups. The findings indicate that AI system integration brought benefits, concerns and communication challenges to sales managers' job content. The main components related to sales managers' ICC in leading AI-integrated sales teams encompass both traditional competencies (motivation, knowledge, communication skills, and adaptability) but also include contextual AI factors and a concern for ethical reflectivity. A component model of managerial interpersonal communication competence in AI-integrated teams (MICCAIT) is produced and its implications are examined. Given the greater reliance on technology, sales managers may increasingly need to place greater emphasis on their empathy and people-oriented skills for the human employees remaining in the workplace.

1. Introduction

Artificial intelligence (AI) is rapidly changing the nature of work across many organizations and sectors of the economy. Based on Microsoft (2023) survey of 31,000 people in 31 countries, 82 % of managers say that "their employees will need new skills to be prepared for the growth of AI" (p. 18). One such sector is financial services and financial technology. In this sector, managers in general (Gallup, 2024) and sales managers in particular, play pivotal roles in leading teams, managing daily operations, and implementing strategic change (Agnihotri, Chaker, Dugan, Galvan, & Nowlin, 2023). AI is already a significant part of the digital transformation occurring in sales teams (Agnihotri et al., 2023; Hall, Harrison, Ajjan, & Marshall, 2022; McClure, Epler, Schmitt, & Rangarajan, 2024; Syam & Sharma, 2018). Such evolution calls for competent adaptability to salespeople (Singh et al., 2019), sales managers (Agnihotri et al., 2023; McClure et al., 2024) and a changing technological landscape.

Despite "more than fifty years of sales technology research, the precise role of sales technology across and within the sales process remains largely unanswered" (Agnihotri et al., 2023, p. 308). Sales is itself an intrinsically communicative process, as is the process of managing sales employees and teams (Koponen, Julkunen, & Asai, 2019; Powers, Jennings, & DeCarlo, 2014). Considering the current and escalating integration of AI in sales processes, the nature of customer interactions, sales team communication (Singh et al., 2019) and requirements for sales managers' interpersonal communication competence (ICC) are undergoing transformation. Despite the recognized centrality of communication throughout the sales process, there is a need to investigate the extent to which AI integration is involving or demanding emerging forms of managerial communication competence (Koponen, Julkunen, Laajalahti, Turunen, & Spitzberg, 2023). Therefore, this study investigates sales managers' ICC in leading AI-integrated sales teams.

Plank, Reid, Koppitsch, and Meyer (2018) conducted an extensive literature review on previous studies focusing on sales management.

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They found 10 different research topics including sales organization and structure, recruitment and selection of salespeople, salesforce training, compensation of salesforce, salesforce supervision and evaluation, sales leadership, sales planning and forecasting, sales manager preparation and training, sales manager traits and skills, and job-related issues and satisfaction. They conclude that sales research that has relied on sales managers as respondents resulting mostly in information about salespeople rather than sales managers and a relative gap in knowledge about sales management traits, skills and/or competencies (Plank et al., 2018). Even though competency modeling has been utilized by industry to manage human capital (Shippmann et al., 2000), research on sales management competencies is surprisingly scarce (Plank et al., 2018).

Digitalization is paving the way for new ways of performing sales manager tasks, involving varied communication processes and increased attention to the use of information and communication technologies (ICTs) and AI (Agnihotri et al., 2023; Singh et al., 2019; Syam & Sharma, 2018). AI is transforming the ways to produce, develop, and deliver sales and services to customers (Huang & Rust, 2018, 2024; Pemer, 2021; Susskind & Susskind, 2015; Syam & Sharma, 2018). Furthermore, when analytical and routine work is increasingly conducted by AI instead of humans, tasks and interactions in teams change accordingly, which means that managers should be able to organize and coordinate multiple types of team combinations, including and perhaps especially human–AI interactions (Koponen et al., 2023; Pemer, 2021). AI is also poised to play important roles in providing feedback to sales professionals (Hall et al., 2022) and managers seeking to optimize selecting, training, retaining, and realizing the full potentials of their sales forces (Agnihotri et al., 2023; McClure et al., 2024; Singh et al., 2019). Organizations need to understand how managerial communication competence and upskilling needs are evolving alongside these technological changes (Gallup, 2023).

In this study, we focus on the financial sector as it has become one of the leaders in AI integration (Caron, 2019; World Economic Forum, 2020). For example, in the beginning of the year 2024, in the case company selected for this study new customer service chatbots have been launched applying generative AI. The substantial subsumption and integration of human tasks by AI in the financial industry portend potentially significant changes in the functions of sales teams. Previous studies have demonstrated that the work of professionals in investment and financial services changes due to the increased use of robots and AI (Flavián, Pérez-Rueda, Belanche, & Casaló, 2021; Koponen et al., 2023; Pemer, 2021): when AI systems increasingly conduct routine work, more demanding tasks are left to humans. Little attention, however, has been paid to the required managerial competencies in leading AI-integrated sales teams.

The term “AI-integrated teams” is used in the present study to refer to sales teams that have AI systems in use. Employees and sales managers work with AI systems, so AI systems are implemented into teams' work tasks and work processes or in parallel with AI (e.g., chatbots). We use the term AI systems to refer to software-assisted hardware technologies with the “ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation” (Kaplan & Haenlein, 2019, p. 17). Other key terms used in this study are defined in Table 1.

Sales managers play a crucial role in leading and implementing strategic changes in daily operations (McClure et al., 2024) such as AI system implementation at the team level (Agnihotri et al., 2023). In the past, approximately 50 % of organizations' AI initiatives fail, primarily due to the lack of AI integration into the day-to-day routines of the employees who are expected to work with AI technologies (McCormick, 2020). Therefore, sales managers need to motivate and convince employees to develop a viable working relationship with AI-dependent job content (McClure et al., 2024). Managers' ICC is particularly vital in leading expert work, pursuing a positive organizational climate, producing successful outcomes and achieving better job performance (Steele & Plenty, 2015).

Table 1
Definitions of key terms used in this study.

Key terms	Definitions	References
AI systems	AI systems refer to software-assisted hardware technologies with the “ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.”	(Kaplan & Haenlein, 2019, p. 17).
Mechanical AI	“Mechanical AI generally learns and adapts only to a minimal degree. It is designed with the goals of maximizing efficiency and minimizing variability. Thus, it is ideal for service standardization.”	(Huang & Rust, 2021, p. 32)
Thinking AI	“Thinking AI learns and adapts from data. It can be analytical or intuitive. Analytical AI is designed with the goal of exploring customer diversity to identify meaningful patterns (i.e., data mining, text mining). The more advanced intuitive AI is designed for maximizing decision-making accuracy (i.e., solving problems, maximizing the accuracy of answering questions in data science language). Thus, thinking AI is ideal for service personalization for optimal service productivity.”	(Huang & Rust, 2021, p. 32)
Feeling AI	“Feeling AI learns and adapts from experience. Experience is defined as data that are contextual- and individual-specific. This level of AI may possess all the mechanical and thinking AI capabilities but applies these capabilities to experience-based data. Feeling AI is ideal for service relationalization, defined as personalized relationship, and for customer satisfaction and retention.” Generative AI is the “new generation of feeling AI because it is designed for human interactions and communications; can recognize and express empathetic understanding of user emotions by analysing the user's direct inputs; generates responses that demonstrate empathy, understanding, or support based on the context of the conversation; and provides information, suggestions, or recommendations that may be helpful to the user in addressing their emotional challenges.”	(Huang & Rust, 2021, p. 32) (Huang & Rust, 2024, p. 5–6)
Interpersonal communication competence (ICC)	The extent to which a communicator or a communicative interaction process is perceived to be both appropriate (i.e., legitimate, acceptable, or fitting to the context) and effective (i.e., preferred personal, interpersonal, and institutional functions and outcomes are optimized). While not constitutive of competence	(Spitzberg & Changnon, 2009; Spitzberg & Cupach, 1984, 2011)

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Table 1 (*continued*)

Key terms	Definitions	References
	judgments, perceived appropriateness and effectiveness are generally expected to be predicted by a communicator's motivation (affective component), knowledge (cognitive component), and skills (behavioral component, e.g., attentiveness, composure, coordination, expressiveness) in a given context.	
Sales manager	The term sales manager refers to"any person who has some management role in the sales process of the firm".	Plank et al. (2018)

As sales managers will likely face the immediate challenges of AI integration in their day-to-day decision-making and activities, they will need new competencies or adaptations of existing ones to successfully lead sales teams. Although many managerial activities in sales can be conducted with the help of AI systems, individual and team development are areas where managers can leverage uniquely human capabilities (Hougaard, Carter, & Stembridge, 2024). Related to these activities, human employees favor human managers, whose inputs are needed for the complex decisional and subtle emotional parts of work that require transparency, care, and courageous conversations (Hougaard et al., 2024).

Despite extensive research on ICC (e.g., Koponen et al., 2019; Spitzberg & Cupach, 2011) and AI applications in business-to-business (B2B) sales (e.g., Chang, 2022; Hall et al., 2022), research and theory building on the changing requirements for sales managers' ICC due to AI integration remain scarce (Coombs, Hislop, Taneva, & Barnard, 2020; Fréour, Pohl, & Battistelli, 2021; Marnewick & Marnewick, 2020). Moreover, Richter and Resch (2021) have identified a lack of research into the development of management in financial companies utilizing AI, where automation and big data are substantially integrated into routine employee activities and organizational functions (Flavián et al., 2021). There is also a need to investigate emerging forms of competence to meet the demands of working with AI (Agnihotri et al., 2023; Coombs et al., 2020).

Our primary theoretical approach is framed by interpersonal communication competence (Spitzberg & Cupach, 1984, 2002). ICC refers to the extent to which communicators' contextual motivation, knowledge, and skills facilitate appropriate and effective communicative interaction processes (Spitzberg, 2013). In general, the value of communication to organizational outcomes is less about whether or not communication is occurring and much more about how competent such communication is when it does occur (Spitzberg, 2013, 2015). While some workplaces may engage in management by memo, research indicates managerial interactions and conversations with employees are disproportionately important to team effectiveness (Clifton & Harter, 2023). Between greater remote work and increased technological mediation of the workplace, interpersonal interactions between managers and employees are likely to become even more important to engagement and organizational climate.

In the present study, we seek to understand the managerial communication competence requirements as the AI system integration evolves in one large financial corporation. We posit the following research questions:

RQ[1]: How has AI system integration evolved in the case company during the five years investigated?

RQ[2]: As AI integration in the case company has evolved, what kinds of interpersonal communication competencies do sales managers perceive they need to lead AI-integrated teams?

To address our research questions, we applied a single longitudinal case study method (Dyer & Wilkins, 1991) and gathered data from one of Scandinavia's largest financial groups providing banking and insurance services. The financial sector is one of the leaders in AI integration when offering services to customers and the case corporation has developed and designed AI system integration during past 10 years. As the primary data, we draw empirical insights from 35 qualitative interviews with sales managers of the case company during the years 2019–2024. As the secondary data, we have utilized the corporate's interim reports, financial statements, background materials and reports by the executive boards during the same period. To analyze and interpret the empirical data and develop our findings, we apply theme analysis (King & Horrocks, 2010).

Taken together, with our findings, we respond to a call to investigate how AI and other technologies are expected to impact sales managers' role and competence (Agnihotri et al., 2023; Coombs et al., 2020), particularly in the financial industry utilizing AI (Flavián et al., 2021; Richter & Resch, 2021). Our findings indicate that sales managers' ICC in leading AI-integrated teams requires revised conceptualization.

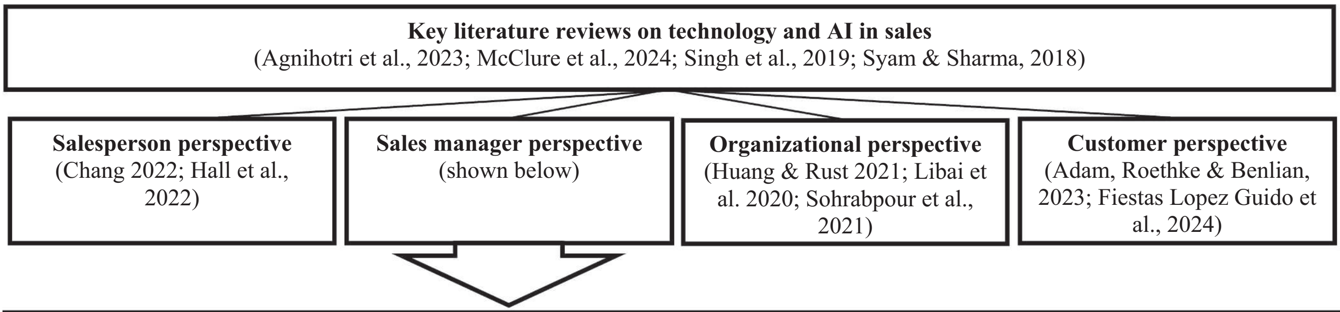
2. Theoretical background

2.1. Use of AI systems in sales

AI and big data analytics are increasingly involved in a process of sales digitalization to design and support sales processes and related activities (Singh et al., 2019). But AI applications take on various forms in the workplace. As defined in Table 1, *mechanical AI*, which is understood as the lowest and easiest form of AI, is used for standardized routine tasks (Huang & Rust, 2021). In contrast, *thinking AI* is applied to more complex and well-defined tasks and *feeling AI* is employed for emotional and communicative tasks (Huang & Rust, 2021). Generative AI, that can create new content through text and other forms of media (Susarla, Gopal, Thatcher, & Sarker, 2023), is the new generation of feeling AI (Huang & Rust, 2024, p. 6). Mechanical AI can learn and adapt only minimally. It is designed to maximize efficiency and minimize variability, making it ideal for standardization. Examples include self-service and budget service. Thinking AI is capable of learning and adapting based on input data and can be analytical (i.e., exploring customer diversity to identify meaningful patterns) or intuitive (i.e., maximizing decision-making accuracy). Thinking AI is useful for service personalization, for instance, assisting in complex purchasing decisions. Feeling AI possesses all mechanical and thinking AI capabilities and can learn and adapt from experience, which refers to data received from contextually and individually specific interactions. Feeling AI is suitable for service relationalization, customer satisfaction, and customer retention. Examples include virtual agents and chatbots (Huang & Rust, 2021) and generative AI such as ChatGPT (Huang & Rust, 2024).

Even though the typology of mechanical AI, thinking AI and feeling AI is not widely applied in the existing sales literature, AI is already integrated into sales and its roles are widely expected to increase. Based on a recent survey by Hubspot (2023), 80 % of sales representatives say that AI and automation tools can help them spend less time on manual tasks such as data entry and scheduling meetings, and 60 % already find AI systems important to their overall sales strategy. In practice, AI systems are applicable to a variety of tasks, particularly prospecting new customers (Hubspot, 2023). According to Salesforce.com survey (2023) sales organizations are currently using AI for data analytics, automation, and content creation (see McClure et al., 2024). Due to these functionalities and their combinations, salespeople increasingly expect that AI will act as a co-worker in their workplace (see Dickie, Groysberg, Shapiro, & Trailer, 2022; Porter, 2017).

Sales technology has been studied from various perspectives. We position our study within the research stream focusing on AI in sales. Literature reviews have summarized previous studies related to sales technology and AI in sales (see Fig. 1). Agnihotri et al. (2023) and Singh



Summary of key scholarly research on sales managers perspective and AI in sales

Reference	Method (c/e)*	Focus of the study				
		Sales training and coaching	Sales performance management	Managing accounts	Recruitment and hiring	Sales managers' communication competence
Chen & Zhou (2022)	e	x				
Luo et al. (2021)	e	x				
McClure et al. (2024)	c/e	x	x	x	x	
Our study	e					x

Fig. 1. Positioning of the study within the field of AI in sales research.
*Note. c refers to conceptual study, e refers to empirical study.

et al. (2019) provided a broad approach on sales technology, focusing a wide variety of technologies, including AI. Syam and Sharma (2018) focused on machine learning and AI and their impact on sales process. McClure et al. (2024) reviewed existing research in sales domain related to AI in sales and provide insights from interviews with 18 sales professionals and managers.

As illustrated in Fig. 1, existing research has investigated AI in sales research from four main perspectives (see McClure et al., 2024): the salesperson (see Chang, 2022; Hall et al., 2022), the sales manager (e.g. Chen & Zhou, 2022; Luo, Qin, Fang, & Qu, 2021), the organization (Huang & Rust, 2021; Libai et al., 2020; Sohrabpour, Oghazi, Toorajipour, & Nazarpour, 2021), and the customer (Adam, Roethke, & Benlian, 2023; Fiestas Lopez Guido, Kim, Popkowski Leszczyc, Pontes, & Tuzovic, 2024). Much of the previous AI in sales research has focused on salesperson's perspective and how AI systems impact the different stages of the sales process (e.g., McClure et al., 2024; Paschen, Wilson, & Ferreira, 2020; Prieto & Braga, 2021; Rodríguez, Svensson, & Mehl, 2020; Syam & Sharma, 2018). However, sales managers' perspectives on AI in sales have not received as much attention.

Only a few key studies have focused on AI in sales and in particular investigating sales managers' perspective (Fig. 1). Chen & Zhou (2022) focused on the drivers of salespeople's AI acceptance from the perspective of sales managers. They found that to motivate salespeople to use AI systems, sales managers need to enhance building an adequate digital infrastructure, develop organization support to encourage salespeople in AI use, provide adequate training, and reduce salespeople's perceived risk of AI usage. Luo, Qin, Fang, & Qu (2021) investigated AI coaches to provide training to sales agents. They found that bottom and top performing sales agents responded differently to AI coaching, to which sales managers needed to pay more attention. Moreover, each sales agent seemed to need different combinations of AI coaching and sales manager support, which would add more complexity to the role of the sales manager.

McClure et al. (2024) reached several conclusions. For example, AI system integration is likely to have an impact on sales performance management practices, which will need to be adapted and changed as "AI will be able to provide sales managers with greater oversight of their salespeople" (p. 9). Salespeople training and coaching becomes highly important, and sales managers need to ensure that salespeople are able to use the selected AI systems. Furthermore, AI systems may help in managing accounts, for example by analysing current customers purchasing behavior for growth opportunities or to develop customized communication. Finally, AI system integration has an impact on salespeople recruitment and hiring, as new set of skills become important, such as empathy, emotional intelligence, curiosity and business acumen.

Taken together, existing studies in the research stream focusing on AI in sales have not yet applied the typology of mechanical AI, thinking AI and feeling AI (Huang & Rust, 2021, 2024) to investigate AI-integration in sales companies. As this typology gives a theoretical grounding for analysing different types of AI technologies, we apply it in the present study. Moreover, it is commonly understood that increased use of AI systems has affected the nature of human work in sales and will continue to do so. It follows therefore that managers will need to be prepared to face employee resistance to change and to engage in competent management practices (McClure et al., 2024; Paschen et al., 2020). Sales managers should encourage and support sales teams in this technological change, a process in which managerial communication competence is inherently needed. However, existing studies have not yet shed light on sales managers' communication competence in leading AI-integrated sales teams, which is the focus of the present study.

2.2. Sales managers and interpersonal communication competence

Communication is one of the most important managerial tasks that creates, maintains, defines, and deepens relationships in teams. The sheer amount of communication in the workplace is enormous. Microsoft (2023) largescale global survey estimated that employees spend 57 % of their worktime communicating and 43 % creating documents, spreadsheets and presentations. A survey of professionals estimated they spend over one-third of their work time in an average of 17.7 meetings per week, and both frequency and time spent increase with management levels (Otter.ai & Rogelberg, 2022). Given that "70% of the variance in team engagement can be attributed to the manager" (Gallup, 2024, p. 19) and most of a manager's job involves communication, it follows that it is crucial for sales managers to be effective and appropriate communicators. Sales managers are responsible for implementing organizational strategies through daily operations and play a vital role in supporting the change process of digitalization (Heikinheimo, Hautamäki, Julkunen, & Koponen, 2024) at the team level. Despite the rapid technological advancement over the past few years, technological changes in the workplace that displace workers are offset by other productivities, and there is still a need for upskilling workers to learn and use the technologies (see Hötte, Somers, & Theodorakopoulos, 2023). As AI transforms work toward greater automation, ICC may become even more important now than previously (Leimbach, 2022). It seems clear that "as AI reshapes work, human-AI collaboration will be the next transformational work pattern—and the ability to work iteratively with AI will be a key skill for every employee" (p. 16). As AI displaces humans and emotions in sales teams and as the transition to greater technological dependence and competencies increases, managers face numerous challenges in adapting their traditional communication skills. Managers will need ICC adapted to a technology-rich context.

ICC describes a person's ability to interact effectively and appropriately with other people in a given relationship, context and culture (Koponen et al., 2019; Laajalahti, 2018; Spitzberg, 2015). ICC is promoted by affective, cognitive, and behavioral processes. The affective component refers to motivation (e.g., goals), apprehensions and attitudes (Sawyer & Richmond, 2015). The cognitive component (Duran & Spitzberg, 1995) pertains to the content knowledge and metacognitive skills involved in communicative action production (Greene & McNallie, 2015). The behavioral component refers to enacted communication skills, both mediated and unmediated, such as attentiveness (e.g., listening, orienting to), composure (e.g., confidence, assertiveness), coordination (e.g., turn-taking, topic relevance, time management), and expressiveness (e.g., humor, storytelling, nonverbal vivacity) (Spitzberg, 2015; Spitzberg & Cupach, 1984, 2011). These processes can be separated at the theoretical level but in practice they are intertwined and interdependent.

ICC is axiomatically contextual (Spitzberg & Brunner, 1991), and as such, the specific ICC components needed in work contexts and in different professions have also been studied (see, e.g., Koponen et al., 2019). Focusing on leaders aligning to AI, Moldenhauer and Londt (2019) provided a list of important skills, including complex problem-solving, critical and computational thinking, creativity, people management, collaborative management, emotional intelligence, judgment and decision-making, service orientation, negotiation, and cognitive flexibility. According to Microsoft (2023) survey, managers consider analytical judgment, flexibility, and emotional intelligence as the top three skills that employees will need in an AI-powered future. Such lists of abilities actually are heavily oriented toward psychological traits rather than the behavioral ways in which managers should communicate competently with their employees. In contrast, a communication focus instead offers the potential to specify specific training and development objectives in observable competencies.

Regarding the main responsibilities of sales managers, ICC is important for strategic implementation, trust building, motivation of people, selection and use of communication tools, choice of controlling mechanisms and compensation systems, and sharing of tasks in teams and organizations (Koponen et al., 2019). ICC is needed both for task-oriented communication and relationship-oriented communication. In particular, managerial ICC is vital in forming and maintaining leader–follower relationships (Forrest & Swanton, 2021; Shockley-Zalabak, 2015), promoting a team spirit, and enabling professional and productive job performance (Elyousfi, Anand, & Dalmasso, 2021; Shockley-Zalabak, 2015). Managers' appropriate and effective communication is also related to employee outcomes, such as motivation, satisfaction, and commitment, across remote, hybrid, and in-person work experiences (Mikkelson, Sloan, Walter, & Hinnenkamp, 2023). Research demonstrates that sales acumen and behavioral, affective, and cognitive communication dimensions are key components of international solution sellers' ICC (Koponen et al., 2019), but to date, this area of study has not considered the effect of AI technologies within the sales team. While interpersonal communication can be so basic that traditional conceptions translate into more technologically mediated contexts (Spitzberg, 2006), the research shows that sales managers' ICC more likely requires an elaborated conceptualization based on industry- or sector-specific components involving core abilities in a certain profession, occupation, or discipline.

2.3. AI in financial sector

Banking and finance are among the sectors leading in AI integration (Caron, 2019; World Economic Forum, 2020). In financial companies, international and national rules and laws, common regulatory procedures, and regulatory reporting are part of everyday work. Identified as an effective tool for supporting and facilitating these tasks, AI is sometimes even considered and treated as a coworker. Overall, tasks are increasingly shared between AI and humans (Brock & von Wangenheim, 2019) as AI often performs routine tasks at speeds and efficiencies well beyond most human capabilities. For example, algorithms represent "a major force in allowing employers to reconfigure employer-worker relations of production and across organizations" (Kellogg, Valentine, & Christin, 2020, p. 366).

Certain common functions in the financial industry have already been altered because of AI, such as summary calculations, record keeping and reporting, data formatting and visualization, forecasting, sales practices and customer service (Hentzen, Hoffmann, Dolan, & Pala, 2021). AI is increasingly utilized and reshaping selling services by automatically conducting various tasks that were once performed by humans (Huang & Rust, 2018; Pemer, 2021). AI exists as programmed symbolic code (i.e., software, algorithms) and does not need to have a manifest physical form to interact with its users (e.g., Samoili et al., 2020), although it may increasingly take physical forms in avatars and robots. As such, AI works most of the time in the background of ordinary routines, formatting and guiding everyday decisions (Salmon-Powell, Scarlata, & Vengrouskie, 2021).

Research on AI systems in financial services is diverse and includes a wide variety of actions (e.g., credit scoring, risk management and cybersecurity, algorithmic trading, chatbots, asset and wealth management, and robo-advisory; see Agnihotri et al., 2023; Hentzen et al., 2021). Most studies have adopted quantitative research designs focused on testing AI algorithms' accuracy and performance in assisting with credit scoring or have investigated consumers' AI adoption behaviors in the banking context (Hentzen et al., 2021). For example, research on analytical AI investment services finds that customers' intention to use robo-advisors increases as their technological optimism increases and decreases as customers' insecurity decreases (Flavián et al., 2021). Additionally, AI devices have higher acceptance among consumers when they are able to show empathy (Pelau, Dabija, & Ene, 2021). Researchers have also examined concerns surrounding AI system integration may cause such as employee fears of being replaced (Koponen et al., 2023) and who may need more emotional support from their managers. AI also brings ethical and moral challenges, particularly regarding its risks related to fairness and privacy (Wirtz, Kunz, Hartley, & Tarbit, 2023).

While substantial research already focuses on customer perspectives toward AI in the financial sector (see Flavián et al., 2021; Hentzen et al., 2021), research is needed to investigate the digital skills needed by employees and managers when collaborating with AI in the workplace (Bagozzi, Brady, & Huang, 2022; Hentzen et al., 2021). For example, due to AI job replacement, "analytical intelligence may not be the comparative advantage of human experts for long" (Huang & Rust, 2018, p. 156). Intuitive and empathetic skills may be the most lasting areas of advantage for human service employees (Huang & Rust, 2018). Such prospects represent the kinds of insights that investigations into sales managers' ICC in leading AI-integrated sales teams may reveal.

3. Method

3.1. The single longitudinal case study method

In order to examine the evolving nature of AI system integration and its related managerial communication competence, we conducted a longitudinal single case study (see Dyer & Wilkins, 1991; Fletcher-Chen, Sharma, & Rangarajan, 2022), focusing on the 5-year period from 2019 to 2024 (see Dubois & Gadde, 2002). Single case studies are suitable for situations that afford an in-depth contextualized understanding of a complex social phenomenon in a real-life setting (Eriksson & Kovalainen, 2016). The in-depth study of a single case can lead researchers to see new theoretical relationships and develop new theories (Dubois & Gadde, 2002; Dyer & Wilkins, 1991). Longitudinal approaches within such methods enable the investigation of the activity episodes and the complexity of the change processes over time (Aaboen, Dubois & Lind, 2012). By applying the single longitudinal case approach, we were able to capture the perceptions of multiple sales managers, trace how they perceived the AI system integration, and their ICC needs when leading AI-integrated teams during 5-year time period.

3.2. Case selection

The case organization is one of the leading corporations in the Scandinavian financial industry as our case company. The company is known as a responsible and smart user of data and a partner with a strong capital base. Across its subsidiaries, cooperating banks and central cooperative bank the company has approximately 13,000 employees. The corporation consists of the following three business segments: retail banking (banking for private and small and medium sized customers), corporate banking (banking for corporate and institutional customers), and insurance (insurance customers).

The case corporation has developed and designed AI system integration during past 10 years. In 2019, the company started to integrate AI systems into its operations more deeply, and the integration of new technology have been the central components of the company's strategy since 2019. Therefore, we started data collection in year 2019. In year 2021 the case company changed their working environment and allowed more remote work due to COVID-19 pandemic, which prompted the collection of more interviews. In year 2023 the case company started integrating generative AI, which again prompted new data collection during the years 2023 and 2024.

As of 2024, the corporation sees AI as one of the main elements that will transform ways of thinking in the financial sector. For instance, the case company has developed and introduced several self-service AI system based applications to their customers. Therefore, the case company provides a good example (Patton, 2014) to examine for relevant insights on sales managers' ICC needs when they lead AI-integrated teams.

3.3. Data collection

We applied theoretical and purposive sampling logic (Patton, 2014) to select the interviewees that would provide relevant and information-rich insights on the sales managers' ICC. Therefore, expert interviews ($n = 35$) were conducted with sales managers in the case company. In all, 15 interviews were completed in dataset I (2019–2020), 10 in dataset II (2021), and 10 more in dataset III (2023–2024). Interviewed managers were responsible for the company's sales process, even though their job titles vary including sales managers, account managers, CEOs, and team leaders. When interviewed, they all were considered sales managers for purposes of this study. All interviewees had experience in leading teams whose members used AI systems and conducted work processes in collaboration with the latter. The interviewees were encouraged to describe their subjective perspectives (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2013) on the changes in their management and communication as the AI systems had been integrated into sales teams' work. The interview questions are available in the online support materials. The interviewees and their background information are described in Table 2. Interviews lasted 23 h 12 min in total ($M = 39.77$ min). Transcribed interviews were 573 pages in total.

In addition to expert interviews, we collected secondary data such as Corporate's interim reports, financial statements, background materials and reports by the executive boards during 2019–2024. Through these materials of 305 pages, we gleaned contextual understanding about the case company and the phenomenon under investigation. These reports also confirmed the AI integration in the company described by the interviewees.

3.4. Data analysis and trustworthiness

Each interview was recorded, transcribed, and analyzed, focusing on a priori themes informed by theory, as well as exploring emergent themes inductively (King & Horrocks, 2010). We apply King and Horrocks' (2010, p. 150) definition of a theme as a "recurrent and distinctive [feature] of participants' accounts, characterizing particular perceptions and/or experiences, which a researcher sees as relevant to the research question."

Related to our first research question, we coded each interview collected during each time.

period to see how AI system integration had evolved in the company. We noticed that in this case company, AI systems may include mechanical, thinking, feeling AI (Huang & Rust, 2021, 2024). We linked the AI system integrated in the case company with the previously mentioned categorization of different AIs. According to Huang and Rust (2021), mechanical AI is used for simple, standardized, repetitive, and routine tasks, and it is considered to be ideal for service standardization. Examples of mechanical AI in the case company are algorithms applied to analyze customer information. Thinking AI is used for complex, systematic, rule-based, and well-defined tasks, and it is capable of learning and adapting based on input data. It can be analytical (i.e., by exploring customer diversity to identify meaningful patterns) or intuitive (i.e., by maximizing decision-making accuracy). In the case company, thinking AI was applied in AI systems that performed tasks within the team e.g. related to financial service creation. In contrast, feeling AI possesses all mechanical and thinking AI capabilities (Huang & Rust, 2021). It can also learn and adapt from experience, referring to the data received from contextually and individually specific interactions. Feeling AI is suitable for service relationalization and generally expected to be critical for maintaining customer relationships (Huang & Rust, 2021). Generative AI is the new generation of feeling AI (Huang & Rust, 2024). In the case company, feeling AI was seldom used, mostly as chatbots and generative AI. Therefore, we combined the categories of thinking and feeling AI to be thinking/feeling AI. After coding the interview data, we checked our understanding by analysing the secondary data with similar procedures. Furthermore, we checked our understanding with one sales manager who specialized in digital technologies in the case company.

Interpretation proceeded as follows. First, three researchers individually conducted the initial content analysis. The researchers carefully reviewed the interviews and identified themes related to ICC when maintaining sales manager–employee–AI relationships, coordinating virtual teamwork, and using ICT tools in practice. Second, all authors jointly analyzed the themes, discussing differences in interpretations and resolving disagreements through further discussion and analysis of the data. Third, all authors produced the findings. The process followed a thick analysis and included researcher triangulation. From the three separate analyses conducted, we moved toward common empirical observations and iteratively inquired about and interpreted those observations in terms of their relations to core theoretical constructs (Ritchie et al., 2013). This process was conducted with each dataset separately (within case analysis). Then, a systematic comparison between three datasets was conducted to recognize similarities and differences

Table 2
Interviewees and their background information.

Interviews (year of interview)	Job title	Education	Age	Management experience (years)	Gender*	Number of pages	Length of the interview in minutes
Interview1 (2019)	Team leader	Bachelor of Business Administration (BBA)	34	7	male	13	43
Interview 2 (2019)	Team leader	BBA	43	10	male	9	38
Interview 3 (2019)	Unit manager	Commercial institute degree in leading and management	40	10	female	9	37
Interview 4 (2019)	Team leader	BBA	40	7	female	8	35
Interview 5 (2019)	Team leader	Master of Science in Economics (MSE)	34	2	male	9	39
Interview 6 (2019)	Team leader	MSE	34	1,5	female	7	35
Interview 7 (2019)	Network manager	MSE	38	10	female	12	45
Interview 8 (2019)	Team leader	Graduate of a commercial institute	50	7	female	9	38
Interview 9 (2020)	Customer service organization manager	MSE	39	12	female	11	47
Interview 10 (2020)	Business lead, sales leader	BBA; leadership studies	36	8	female	11	48
Interview 11 (2020)	Manager of digital sales	MSE	36	5	female	11	48
Interview 12 (2020)	Business product owner, tools and systems of digital marketing and sales	MSE	47	6	female	10	42
Interview 13 (2020)	Manager of private customer sales	Master of Laws LL. M. with court training, P.D. OEM	49	20	female	12	50
Interview 14 (2020)	Competence lead, business lead of marketing and customer communication	Bachelor of Social Services	45	10	female	12	49
Interview 15 (2020)	CEO of a bank, manager of the bank	Doctor of Science	44	18	female	9	35
Interview 16 (2021)	Consumer manager of the bank	MSE	41	14	male	20	59
Interview 17 (2021)	Sales manager of the bank	MSE; Master of Health Sciences	34	8	male	17	52
Interview 18 (2021)	Customer team leader of the bank	MSE	32	< 1	male	15	35
Interview 19 (2021)	Vice head of the bank	Bachelor of Laws; Master of Laws, eMBA	45	20	male	12	47
Interview 20 (2021)	Sales manager of the bank	BBA	49	21	male	14	42
Interview 21 (2021)	Sales manager of the bank	MSE	38	7	male	17	51
Interview 22 (2021)	Sales manager of the bank	BBA	29	4	male	16	50
Interview 23 (2021)	Head of customer services	MSE	60	32	male	13	36
Interview 24 (2021)	Sales manager of the bank	BBA	43	15	female	11	31
Interview 25 (2021)	Sales manager of the bank	BBA; MBA	47	22	female	14	49
Interview 26 (2023)	Head of customer services of the bank**	MSE	48	14	male	12	23
Interview 27 (2024)	Sales manager of the bank	MSE	35	8	female	22	68
Interview 28 (2024)	Sales manager of the bank**	MSE	53	20	male	22	54
Interview 29 (2024)	Sales manager of the bank**	MSE	41	10	male	35	50
Interview 30 (2024)	CEO of the local bank**	Bachelor of Laws; Master of Laws, eMBA	48	23	male	28	43
Interview 31 (2024)	Sales manager of the bank**	BBA	42	16	female	32	46
Interview 32 (2024)	CEO of the local bank**	MSE	38	11	male	37	65
Interview 33 (2024)	Account manager of the bank	MSE	52	15	female	37	46
Interview 34 (2024)	Sales manager, digital channels**	BBA; leadership studies	39	10	female	22	31
Interview 35 (2024)	CEO of the local bank**	BBA	32	8	male	14	26

*Note. Gender is based on interviewees' self-evaluation on their social gender. **Second interview with the same manager.

between the data-sets. Finally, all authors produced the model. In Table 3, we illustrate the analysis.

Trustworthiness of the case study was ensured from multiple perspectives (Eriksson & Kovalainen, 2016). The managers interviewed have direct experience managing AI-integrated teams. As we aimed to gain longitudinal understanding, in years 2023–2024 we reached out all the same sales managers that had been interviewed during the years 2019–2020 and 2021. We were able to gain 10 new interviews during the years 2023–2024. Some sales managers had changed positions within the case company or they had left the company. Therefore, some new sales managers were interviewed during the years 2023–2024 specifically to elucidate possible evolving changes over time.

Confirmability of the case study was ensured by having multiple sources of evidence and having key informants review the draft of the case study report (Riege, 2003), which was also presented to key informants by one of the research team members. Credibility was ensured by conducting within-case analysis regarding each collected data-sets (2019–2020; 2021; 2023–2024) and then systematically comparing the findings across data-sets (Riege, 2003).

4. Findings

We first report the answers to the first research question and explain how the AI system.

integration evolves in the case company during the five years investigated. Next, we answer to the second research question and show contextual AI factors, ethical reflectivity, the traditional ICC requirements for sales managers (motivation, knowledge, communication skills, and adaptability), and communication outcomes. Based on our findings, we synthesized a component model of MICCAIT contexts (Fig. 2).

Table 3
Data analysis (first-order codes, second-order categories, and main themes).

Data-set I 2019–2020	Data-set II 2021	Data-set III 2023–2024	First-order codes	Second-order categories	Main themes
x	x	x	Predisposition to change and progress		
x	x	x	Willingness to facilitate others		
x	x	x	Intrinsic task motivation	Motivation	
x	x	x	Willingness to lead		
x	x	x	Appreciating others		
x	x	x	Learning self-efficacy		
x	x	x	Social intelligence		
x	x	x	Emotional intelligence		
x	x	x	Leadership experience		
x	x	x	Leadership knowledge	Knowledge	
		x	Understanding and using AI produced key figures of the customer data in sales		
		x	Understanding and using AI produced key figures of the employee data in managing teams		
x	x	x	Socioemotional/empathic		
x	x	x	Listening/presence		Traditional ICC requirements for sales managers
x	x	x	Motivating others		
x	x	x	Argumentation		
x	x	x	Openness and fair informativeness		
x	x	x	Expressing/affirming meaningfulness of work	Communication skills	
x	x	x	Facilitating comfort and an informal culture		
x	x		Supporting employee self-management		
		x	Supporting team's co-management		
		x	Speaking in a polite manner like AI does		
		x	Ability to craft effective prompts to generative AI		
		x	Giving, receiving and reflecting feedback		
		x	Considering employee differences in AI literacy, use and acceptance		
x	x	x	Considering people's different communication styles		
x	x	x	Knowledge of change management process	Adaptability	
x	x	x	Predisposition to change/progress		
	x		Understanding and selecting appropriate communication channels and practices		
x	x	x	Professionalism regarding routinization of work		
x	x	x	Time management		
x	x	x	A shift from task management to leading people	AI factors	Contextual AI factors
x	x	x	Resource demands		
	x	x	Personalization of AI		
x	x	x	Understanding and applying ethical and moral standards		
x	x		Ethical and responsibility aspects that need to be considered in team practices	Ethical considerations	Ethical reflectivity
x	x		Responsibility toward organizational stakeholders and collaborators in and out of the organization		
x	x	x	Trust		
x	x	x	Community/identity	Relationship-oriented outcomes of communication	
x	x	x	Engagement/inclusion		
x	x	x	Satisfaction		Managerial communication outcomes
x	x	x	Reaching the aims of the work	Task-oriented outcomes of communication	
x	x	x	Openness in information sharing		
x	x	x	Decision-making in teams		
x	x	x	Meaningfulness of work		

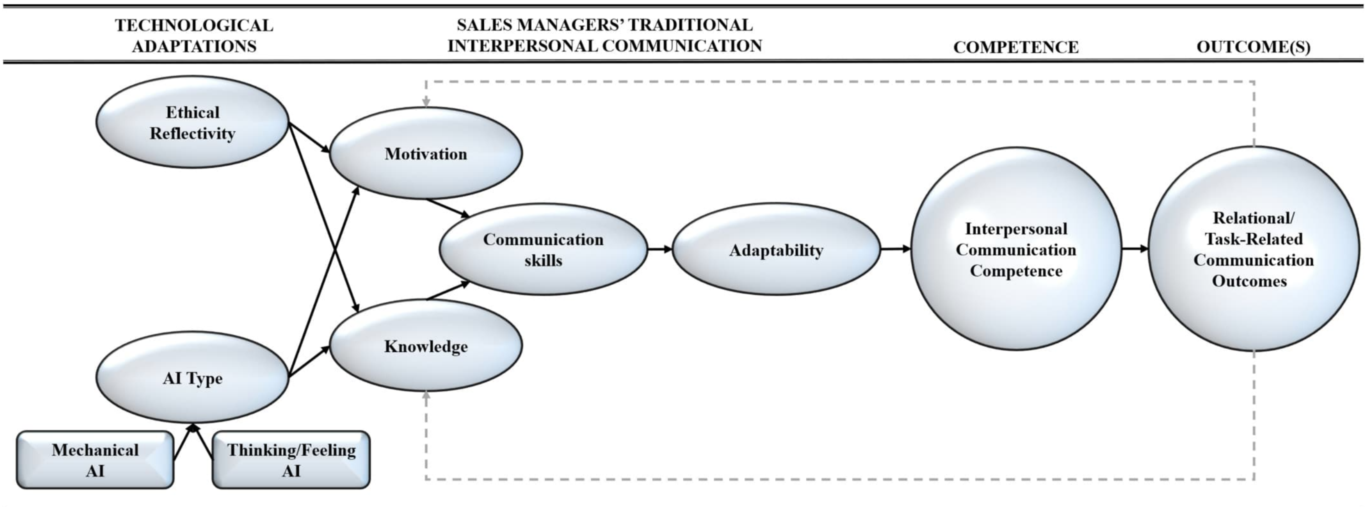


Fig. 2. Component model of Managerial Interpersonal Communication Competence in AI-integrated Teams (MICCAIT).

4.1. AI system integration in the case company

To answer the first research question, we summarize AI system integration in the case.

company in Table 4. As is evident by the examples in Table 4, the company is integrating mechanical AI and thinking/feeling AI into sales team work. AI system integration has evolved in the case company during the five years investigated. As indicated in Table 5, during the years 2019–2021 AI integration was more or less similar across datasets I and II. However, by dataset III (2023–2024) the integration of generative AI represented a significant qualitative change.

4.2. Contextual AI factors

The sales managers described changes in their work contexts due to AI. These contextual AI factors included professionalism regarding routinization of work (i.e., mainly mechanical AI), time management (i.e., directing human effort toward more subtle, complex or demanding tasks), offloading leadership tasks, resource demands, and personalization of AI (i.e., engaging AI in manner analogous to coworkers).

As illustrated in Table 4, mechanical AI conducted its work rather independently, whereas thinking/feeling AI played a more collaborative role in working with or for salespeople. In our data, routinization of work refers to mechanical AI's capability to handle routine tasks, whereas more complex tasks are performed by humans. Sales managers were also expected and often even required to accept more complex tasks and new management practices.

> *When we have robotic process automation to help us, our time is no longer wasted on basic tapping and copy-pasting and that completely manual work. But we can use our brains for problem-solving and what we are good at. And for us, it means that we can solve bigger issues for banks [and] bigger problems and use our strength to sort of do more challenging things.* (Interviewee 7, 2019).

> *Routine work rarely motivates anyone, and in the long run nobody wants to do it. So AI systems have come to do such tasks. We have more time for the most demanding tasks.* (Interviewee 20, 2021).

> *Our work role has evolved into an expert role. We don't really have purely routine work, where the same tasks are repeated day after day without having to apply knowledge very much. The routine work is conducted by AI [systems].* (Interview 27, 2024).

The managers described changes in time management, which was related to all AI types in our data. For instance, they noted that applying the mechanical AI and new combinations of thinking/feeling AI when working with sales team members saved time and made the work more efficient. For instance, using generative AI saved time because it could translate texts and help in preparing presentations.

A shift from task management to leading people means that when AI systems are conducting more (routine) work tasks, sales managers' need to pay more attention to people and the relational aspect of the work than before. To engage all employees in sharing the new responsibilities between AI and sales professionals in the teams, sales managers experienced having increased relational leadership tasks compared to management tasks, as illustrated in the following excerpts:

> *[In the combination of AI and human work], leadership work allows you to tackle much more interesting challenges and pay attention to people.* (Interview 13, 2020)
> *There used to be more routine tasks to manage, and now there are experts to manage. There are more human encounters and people need to be led to their current jobs in a different way than before.* (Interview 22, 2021).

> *I have experienced a shift from the old sales management style and profit management style toward really leading people.*
> (Interview 27, 2024)

Resource demands refer to the needed resources (time, budget, and centrality) of the human resource management in the case company since employees should be sufficiently upskilled for the AI transition. Personalization of AI means the employees' perception of thinking/feeling AI as a new coworker (see Koponen et al., 2023), which is considered exciting and strange at the same time. To create the impression that AI could be viewed as new workmates, sales managers often called them by human names and considered them as personal assistants(see also Table 4).

4.3. Ethical reflectivity

According to the sales managers, in the financial industry, all managers and the rest of the employees are expected to reflect their organization's ethical values or perspective and follow its rules and regulations. According to the interviewees, AI integration further increased the need to reflect the related ethical issues, and this was evident especially in datasets I and II. They described having to understand and apply ethical and moral standards in a new, changed work environment, for example, in relation to the ethical and secure processing of personal and other data, as well as knowing how to take into account the continuity of operations and risks.

Ethical standards and responsibility aspects should be considered in

Table 4
How different AI systems are integrated into sales team work in the case company.

	Mechanical AI (definition based on Huang & Rust, 2021)	**Thinking/Feeling AI** (definition based on Huang & Rust, 2021; Huang & Rust, 2024)
Examples from the data	- Algorithms perform routine work independently and automatically. - Algorithms help in information searches and analysing customer data. - AI systems help to automate sales processes. - AI systems handle consumers' credit applications. - AI systems make decisions on credit applications. - Robo-advisors independently help customers with investment solutions (self-service). - Robotic process automation is used to independently check tender offers made on an online store.	- An AI system collaborates with humans during a financial service creation process. - As part of the sales team, an AI system has its own to-do list. - An AI system collaborates with managers and checks employees' work processes. - The chatbot interacts with customers. - The chatbot interacts with employees when it cannot solve a customer's problem. - The chatbot is applied in internal communication and interacts with employees. - Generative AI helps in idea generation, in making presentations and other written materials. - Generative AI translates texts to different languages and makes memos. - Generative AI summarizes extensive information packages. - Generative AI helps customers and provides personalized financial service.
Human-AI system interaction	As the AI system performs its tasks automatically. Interaction between humans and AI occurs if AI makes a mistake or when limits of lending reach alarming levels. AI system is considered a tool for work.	Interaction between humans and AI occurs during work processes, when customers use the chatbot and when the chatbot informs employees about the issues it cannot resolve. Interaction occurs when employees use the chatbot for problem-solving (e.g., the chatbot can be used for consultation regarding IT problems). Interaction occurs when preparing presentations, materials or translations with generative AI. Interaction also occurs if the AI system makes a mistake or is broken. AI system is considered a co-worker and a personal assistant for a human.

all team practices, which necessitate ICC. Sales managers must be able to articulate and communicate their organization's ethical principles and practices of using AI to their team members. Furthermore, sales managers need the competence to encourage open discussions about AI ethics, promote awareness of its impacts, and encourage their team members to engage in ethical deliberation during decision-making processes. They should also lead by example in ethical behavior and motivate their team members to adhere to the highest ethical standards. Sales managers bear the associated responsibility toward organizational stakeholders, customers, and collaborators in and out of the organization, as illustrated in this statement:

> *All in all, for the sake of customers, I just hope that all these machine learning, artificial intelligence, and robotics solutions are sustainable and ethically made.*
>
> (Interview 11, 2020)

> *The consern at the moment is that if you put a loan application in a bank, you always negotiate the margin, or the price of the loan and other things. Now the first offer is given by the robot. I'm setting a price for that first bid. It is still in the experimental stage, we should get even better access to data so that offers can be personalized.* (Interview 17, 2021).

Table 5
Timeline in AI system integration, related benefits and concerns, and communication challenges in the case company 2019–2024.

	2019–2020	**2021**	**2023–2024**
Type of AIs in use	-Mechanical AI (algorithms, robo-advisors, robotic process automation) - Thinking or feeling AI systems (AI system collaborating with humans, chatbots for customers)	-Mechanical AI (algorithms, robo-advisors, robotic process automation) - Thinking or feeling AI systems (AI system collaborating with humans, chatbots for customers)	-Mechanical AI (algorithms, robo-advisors, robotic process automation) - Thinking or feeling AI systems (AI system collaborating with humans, chatbots for customers, chatbot for employees starting 2023; ChatGPT, Copilot, and company specific applications applying generative AI for customers and for some employees.
Experienced benefits of the use of AI systems	AI systems conduct routine work which saves time, work is faster than before.	AI systems conduct more routine work, which saves time. Human work becomes more meaningful and also more demanding.	AI systems conduct even more routine work, which saves time. Human work becomes more meaningful and also even more demanding. More time is allocated to customer interaction.
Concerns related to AI system integration	Employees fear of losing their job; employees have ethical and equality concerns related to AI systems.	Need to motivate employees to continuous learning (reskilling and upskilling themselves); coaching leadership style was introduced; ethical concerns still exist.	Work descriptions are changing fast, need to motivate employees to continuous learning (reskilling and upskilling themselves)
Communication challenges	Overcoming fear, encouraging change, accepting change, and building trust.	Encouraging the use of AI systems, supporting self-management, encouraging learning new things, building trust.	Encouraging the sharing of information, encouraging co-management, adapting to continuous digital change, adapting to the constant change in job descriptions, sparring with everyone individually, maintaining trust.

4.4. Traditional ICC requirements for sales managers

First, across all data collection stages interviewees described motivation, knowledge, and communication skills as the key elements of sales managers' ICC requirements when leading AI-integrated service teams. Although the term *adaptability* was not directly mentioned in the interviews, it emerged as a second-order interpretation of implicit explanations of the application of some of the other processes and abilities, as well as the idea of adapting to different situations, communication needs and relationships.

Motivation consisted of a sales manager's goal orientation, willingness to lead teams, intrinsic task motivation, willingness to facilitate others professional development, and appreciating others. Sales managers described being motivated and willing to lead new tasks in a team, achieve goals, and foster learning in teams.

> I have internal motivation. I am very interested in my own people and people in general. I want to know what they are like. I want to help every person in my own community or in my work community be a better team player.
>
> (Interview 1, 2019)

> I genuinely want to help team members and be present for them as a leader. (Interview 25, 2021).

> My intrinsic motivation is extremely strong for this work and has always been. As soon as I came to work at the bank, I said after my first day that I will retire from this job. (Interview 33, 2024).

The interviewed sales managers were motivated to develop and maintain mutual appreciation in their teams and highlighted how important appreciation is among the team members.

In all datasets knowledge included learning self-efficacy, social/emotional intelligence, leadership experience and knowledge, and understanding how to plan communication at the organizational and team levels. Self-efficacy refers to being aware of and believing in one's own knowledge and ability as well as the industry requirements for expertise.

> *Change is constant, and indeed, learning new tech skills and enhancing old tech skills are currently two of our most important skills in working life.* (Interview 1, 2019)
> *Work is changing constantly and the challenge is how to keep up with the change. It requires all of us to learn new things all the time.* (Interview 19, 2021).

> *I have to learn a lot of new things myself. I have to learn a lot of new tools, I have to have new knowledge and new skills.* (Interview 32, 2024).

Furthermore, sales managers possessed the necessary social/emotional intelligence to recognize the emotional atmospheres in their teams. For example, social/emotional intelligence emerged when the sales managers recognized their team members' fears of an unknown future and used their ability to create a safe working environment.

> Management is much related to emotions. It is the treatment of emotions. Dealing with the employee's emotional reactions and setting the manager's own feelings in the same. And the treatment of the general emotional atmosphere, the collective emotional atmosphere of the work community. Now we are talking about AI, which causes fear, causes such a massive hysteria that we [might] run out of jobs in [this country]. So how is this handled in the workplace? As if living with fear, I guess that's the question. (Interview 3, 2019).

> It's important to lead people toward feelings of accomplishment. Through those positive emotions we achieve success. (Interview 24, 2021).

> *Managing emotions is really important. You have to lead emotions toward results, but at the same time provide support for demanding results.* (Interview 34, 2024).

Having leadership experience and knowledge was closely connected with today's constant and rapid changes, requirements for data and modern system management, as well as process management. Moreover, the managers identified the need to update their competencies constantly (e.g., both “learning old” and “learning new” ones).

In year 2024, when looking at the category of thinking/feeling AI, generative AI was integrated into sales team work. Therefore, sales managers described using generative AI to produce key figures of customer data and applying these results in sales. Furthermore, they were able to use key figures regarding employee data in interaction with sales team members, as the following example illustrates.

> *AI system produces certain information for me in supervisor-subordinate discussions. In other words, it can alert you that now with this person you could discuss work ability issues. If I think from goals perspective, I get amazingly good reports which means that AI tells me the key numbers that I need to pay attention to.* (Interview 27, 2024).

Communication skills included the ability to express and show empathy, listening and showing social presence, skills in motivating others, argumentation skills, openness and fair informativeness, expressing/affirming the meaningfulness of work, and facilitating comfort and an informational culture in all datasets.

Sales managers' communication skills were evident in their interactions with their team members. Empathy was described as a sales manager's ability to emotionally understand different people in various life circumstances and the skills needed to express empathy toward others. Specifically, they were able to recognize differences among people and showed an understanding of different team members. Listening skills referred to sales managers being present in the current moment and paying attention, including their abilities to show that they were listening, to adjust their communication and respond appropriately, and to give feedback to team members.

Argumentation involved consistency of the core content, unequivocal communication, logical justification, and the ability to classify and compress one's message. Argumentation skills were needed in everyday negotiations. Openness and fair informativeness illustrated the sales managers' ability to create a flexible and open communication atmosphere for the team and providing the necessary information fairly and objectively. This welcoming environment also meant an opportunity to communicate all changes and their consequences for the team's work. Furthermore, the sales managers needed to be able to communicate how interpersonal communication practices were changing and how the tasks assigned to AI and sales professionals were being differentiated.

In datasets I (collected 2019–2020) and II (collected 2021) the sales managers emphasized supporting employee self-management regarding technological changes and AI system integration. However, in dataset III (collected 2024), they underlined supporting team's co-management. That is, they wanted to support open information sharing and managing work at the team level, not only at the individual level.

In dataset III (collected 2024) sales managers expressed a need to speak to the sales team members in a polite manner like AI does. Giving, receiving and reflecting feedback was highlighted as a part of the coaching leadership style. Also, they highlighted the ability to craft effective prompts to generative AI to get appropriate answers.

> *People are used to always receiving polite answers from AI. It means that I, too, have to talk to them, especially young people, very politely so that they don't feel offended.*
>
> (Interview 33, 2024)

> *You need to be able to formulate questions correctly for the AI system so that you get good answers.* (Interview 33, 2024).

Adaptability was highlighted in all datasets. It was required in increasingly changing work environments—that is, sales managers needed to adapt behaviors from one context to another, one employee to another, one situation to another, and one communication/technological application to another. Especially in dataset III sales managers found it important to consider employee differences in AI literacy, use and acceptance.

People are really different, or teams are different. *Whenever you think about the context, what is important to them, or what the style of action is, you* can't just tell things the same way to an individual or individuals or teams or an organization. It's always like thinking about it to [be able to] deal with those things. (Interview 13, 2020).

I try to take individual needs and expectations into account better with people and hopefully offer a better leadership experience to my team members. (Interview 20, 2021).

Management must increasingly take into account the fact that there are those employees who are not receptive to AI and on the other hand those who know how to use AI better than managers themselves. You have to adapt to the skills of different people. (Interview 28, 2024).

Adaptability is the most common thread running through research and theory on ICC (Spitzberg & Cupach, 1989). Broadly, it refers to the ability to optimize the selection and enactment of communicative behaviors to fit the norms, constraints, demands, and resources of the context (Morgan et al., 2013; Puckett, 2020). In this sense, adaptability is "the ability to initiate or respond to change" (Johnstone & Wilson-Prangley, 2021, p. 1), which makes it a meta-skill that mediates other skills. It is the capacity to activate, from a repertoire of skills, those behavioral characteristics that will best meet the needs in any given situation, as well as maintain this ability across changes in situations. Illustrative items include "knowledge of the change management process" (cognitive) and "predisposition to change/progress" (affective), which presuppose the need to adapt behaviors from one context to another, and so on. (see Fig. 2).

4.5. Outcomes of managerial communication

The outcomes of the sales managers' ICC were related to the outcomes of managerial communication. Outcomes were discussed in two relatively distinct forms: relationship-oriented and task-oriented communication outcomes. These outcomes were evident in all datasets.

Relationship-oriented outcomes reflected that trust, openness, community/identity, engagement/inclusion, satisfaction and the meaningfulness of work could result from appropriate and effective interaction with employees. Trusting denotes having confidence in sales managers as human beings, having faith in their leadership, and believing in team members (Sutherland & Yoshida, 2015). Sales managers highlighted reciprocity in trust building, which depended on a manager's ability to share information and assign tasks to their team members based on their expectations of the latter's willingness to handle various responsibilities. Trust also meant openness in information sharing from the perspective of a sales manager and the expectation of open information sharing among the other team members.

I prefer open and inclusive communication as it is the basis of trust. I like sharing information, but I also expect my team members to familiarize themselves with matters and share information on their part. (Interview 11, 2020).

The solution to building trust is openness and transparency. (Interview 16, 2021).

I see openness and transparency as important objectives. We need to make sure that everyone who needs to know certain information, gets it, and hopefully understands it. (Interview 30, 2024).

The community/identity aspect emerged in the interviewees' descriptions of their team and organization members as their "own people"; they even reported feeling part of a "tribal" culture. This sense of belonging supported the development of a common identity in the organization. The sales managers stated that their own leadership identities influenced the cultural aspects of the teams and vice versa. Because the teams' identities developed strongly over the past few years, the members' roles strengthened, based on their own clarified responsibilities and aims, as well as task sharing between the team members and AI systems. The achievement of trust and community/identity in turn led to the members' increased engagement in the working community and inclusion in the teams. This engagement was recognized as resulting in enhanced team members' satisfaction with their sales managers and vice versa.

Task-related outcomes of communication included reaching the aims of the work, openness in information sharing and meaningfulness of work. Reaching the aims of the work was an essential goal for sales managers' communication. Openness was characterized by the organization's willingness to be acquainted with new open communication methods and attitudes (Sarwari, 2024). Although the strategic aims remained high, different and even unexpected discussions were accepted in parallel. Such openness at the team level supported the sales managers' low resistance to change and confirmed their team members' readiness to seek new and even unexpected opportunities, including, for example, involving the acceptance of informal communication methods. Finally, because of the sales managers' ICC, their team members felt that they were conducting meaningful work (Martela et al., 2021). Meaningfulness was described as the most significant milestone, related to each member's understanding of their own role in the team and its meaning to the team's everyday work.

Collectively, Fig. 2 represents a theoretical model in which a manager surveys any given situation and evaluates the ethical and technological issues involved. From this assessment, the manager becomes aware of their motivation and accessible content and procedural knowledge for enacting a competent line of interaction with the relevant employees. Based on the activated knowledge an optimal behavioral approach is initiated and adapted as the episode progresses.

To the extent their choices and skills are (perceived to be) competent, it facilitates productive outcomes. Based on feedback and how well the outcomes develop, the manager continues to adapt their subsequent actions.

5. Discussion

Employing a longitudinal case study approach, this study aimed to understand managerial interpersonal communication competence requirements as AI system integration evolved over five years (2019–2024) in one large financial corporation. The findings indicate that AI system integration evolved from integrating mechanical AI and increasingly adding thinking/feeling AI to sales team work. This integration brought benefits, concerns and communication challenges to sales managers' job content, process and demands. Benefits were related to time savings, speed of work, and having more meaningful and demanding work to do. Sales managers were also able to allocate more time for customer interaction. In the beginning of the 5-year period (2019–2020), concerns were mostly related to employees' fear of losing their job and experiencing ethical and equality concerns related to AI systems. Two years later (2021) the sales managers were more concerned about motivating employees to engage in continuous learning. In year 2024, sales managers were concerned about rapidly changing work descriptions and need to reskill and upskill themselves and their sales team members. Communication challenges were related to these concerns moving from overcoming fear, accepting change, and building trust (2019–2020) to encouraging the use of AI systems, supporting self-management, encouraging learning new things, and building trust (2021) to finally encouraging the sharing of information, encouraging co-management, adapting to continuous digital change, adapting to the constant change in job descriptions, sparring with everyone individually, personalizing their interactions with AI and maintaining trust (2024).

The present study also investigated the kinds of interpersonal communication competencies sales managers perceive they need to lead AI-integrated teams, as AI integration in the case company evolved. To date, B2B sales research has largely ignored explorations of sales management competencies (Plank et al., 2018). Responding to this gap, this study developed a predictive model and linked the emergent competencies to outcome measures (Plank et al., 2018). The findings and proposed model respond to the need to investigate emerging forms of competence to meet the demands of working with AI (Coombs et al., 2020), particularly in the financial industry utilizing such technology (Flavián et al., 2021; Koponen et al., 2023; Richter & Resch, 2021).

Our findings indicate that the ICC of sales managers in leading AI-integrated teams requires a new conceptualization. Consequently, we have developed a new component model of managerial interpersonal communication competence in AI-integrated teams (MICCAIT) (Fig. 2). Our research has theoretical relevance, particularly given the relative paucity of theory building on the changing requirements for sales managers' ICC (Fréour et al., 2021; Marnewick & Marnewick, 2020).

First, in contrast to researchers who previously investigated managers' communication competence (Marnewick & Marnewick, 2020; Moldenhauer & Londt, 2019), our findings are grounded in extensive research and theory about ICC (Spitzberg, 2013, 2015; Spitzberg & Cupach, 1989). Our study's results do not emphasize managers' technical competencies as such but show that the main components related to sales managers' ICC in the financial sector are traditional ICC. Regardless of the sales managers' motivation, knowledge and experience, they ultimately manage through interactions and communication with their employees. Managers need to adapt to whatever changes AI brings to the workplace by communicating with their teams. Consistent with leader–member exchange theory, management and leadership are constituted through day-to-day interactions and communication with employees (Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016). Our findings indicate that traditional ICC is needed to adapt to increasingly changing work environments, that is, adapt behaviors from one context to another, one employee to another, one situation to another, and one communication/technological application to another. Other researchers have emphasized managers' adaptability when exploring their communication competence (Kannan, Sumitra, & Garag, 2021; Lee & Meng, 2021). Therefore, we confirm that not only employees in general (e.g., Puckett, 2020) but also sales managers (e.g., Agnihotri et al., 2023) should increasingly adapt to fit their traditional interpersonal skills to constantly changing work environments.

Second, as shown in Fig. 2, sales managers' ethical reflectivity (see also Anshari, Almunawar, Masri, & Hrdy, 2021) informs the connection between their traditional ICC and organizational outcomes. Sales managers' ethical reflection guide possible motives, strategies and courses of action. Such guidance, in turn, informs team practices and discussions with collaborators who are not organization insiders. These ethical standards relate to the industry (financial sector) as the sales managers' associated responsibilities toward organizational stakeholders and collaborators in and out of the organization.

Third, in the MICCAIT model (see Fig. 2), AI factors inform the connection between sales managers' traditional ICC and the communication outcomes. The understanding of how and why different types of AI serve different employee and organization functions in distinct ways guides knowledge and thus motivations for its applications and managerial approaches to its uses. Due to mechanical AI system integration, humans' routine work has decreased, and more demanding professional work has increased. This change has led to efficiency, and time management has focused on reorganizing communication management and solving challenges in the interactions between sales managers and their team members. Leadership tasks have expanded in the sense that the demand for relational management and investment in human resources has increased and the need for task management has decreased. Personalization of thinking/feeling AI (e.g., giving first names to the AI in a team; considering AI as an assistant) enhances its acceptance as a coworker and improves team engagement with the technology and one another.

Fourth, in the MICCAIT model, adaptively applying sales managers' traditional ICC motivation, knowledge, and skills will likely generate productive communication outcomes. Our findings show that through effective and appropriate communication, sales managers can enhance both relationship-oriented and task-oriented communication outcomes.

5.1. Managerial implications

Findings of the present study are managerially relevant as they imply how AI integration evolves over a five-year time period, and what kinds of benefits, concerns and communication challenges such integration brought to the case company. Such findings provide potential guideposts for managers to anticipate and understand how the AI integration process unfolds and what specific characteristics are associated with the process. There is more to AI integration than technical training in the AI system and software—new communication practices and competencies will need ongoing assessment, training and evaluation.

The findings may inform sales management practice as we have identified the key components of managerial competence in AI to consider for sales managers' recruitment and training. This will help in reskilling and upskilling sales managers working in technology-intensive companies. Business schools and executive MBA programs can also benefit from reevaluating the relevance of their curricula to the rapidly emerging AI environment in major business sectors. It is important that future sales managers are equipped with relevant competencies (Plank et al., 2018), and our findings indicate content competencies to cover in current sales managers' education.

This study has shown the importance of managerial communication competence in AI integration process in a case company, that appeared to have survived AI integration positively and successfully. However, aside from some more obvious challenges such as job replacement, there are other potential dark sides of technology implementation in B2B sales. For example, technology overload (Goel, Baliga, Rangarajan, & Lussier, 2024), which refers to excessive reliance on technologies, is a major contributor to technostress among salespeople. Prevention of such disadvantages will be an important challenge for managers to anticipate and avoid by formulating training and resource plans.

5.2. Future research recommendations

The findings reported here constitute a starting point for further research to assess, test, refine and expand the MICCAIT conceptual framework. As job content increasingly becomes technology-dependent, sales managers will need to demonstrate competence in people-oriented skills such as empathy (feeling-consciousness) for the human employees remaining in the workplace (Huang, Rust, & Maksimovic, 2019). In recent research, the importance of emotions has been acknowledged since "the prevalence of AI in service pushes the service economy from high-tech to high-touch (with feeling service being offered by either AI, human employees, or both), and the relationship between AI, service, and emotion becomes closer and more complex" (Bagozzi et al., 2022, p. 4). Therefore, from a human resource management and recruitment perspective, developing and validating assessments of sales managers' MICCAIT will assist in matching their capabilities to organization needs. For example, this evaluation could be accomplished by updating existing understandings of sales communication competence (see Koponen et al., 2019) with AI-related features. Furthermore, as there is also the dark side of technological advancements and AI integration, it will be important to interview sales managers regarding their ICC failures, challenges or needs, and also salespeople's perceptions of their managers' ICC failures, challenges or needs.

5.3. Limitations

Case studies have limitations, as they cannot rely on statistical inference but have to rely on analytical inference (Dubois & Gadde, 2002). Our single case longitudinal research design has provided new in-depth contextual knowledge. However, although a leading organization in its region, the case study is limited to a single firm in the financial industry. Therefore, the findings may be applicable in similar contexts, but still should be interpreted with caution. Regarding transferability (Riege, 2003), the findings will need to be replicated in other companies in the financial sector utilizing AI system integration. Findings can also be applied to some extent in other professional service firms utilizing AI system integration. Future studies will need to investigate AI system integration in other industries. Such examinations could explore whether our findings can be applied across contexts (see Fletcher-Chen et al., 2022).

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CRediT authorship contribution statement

Jonna Koponen: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Saara Julkunen:** Writing – review & editing, Methodology, Formal analysis. **Anne Laajalahti:** Writing – review & editing, Methodology, Formal analysis. **Marianna Turunen:** Writing – review & editing, Formal analysis, Data curation. **Brian Spitzberg:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Methodology, Investigation, Conceptualization.

Declaration of competing interest

None.

Appendix A. Interview questions

BACKGROUND INFORMATION

- ☐ Education
- ☐ Job description
- ☐ Age and perceived gender
- ☐ Supervisor / leadership experience in years

AI INTEGRATION IN FINANCIAL SECTOR

- ☐ Could you describe how AI has been integrated into the team's sales work?
- ☐ Can you give concrete examples of it?
- ☐ Can you name some AI applications that you have in use?
- ☐ How has this integration evolved and what have you learned? How has sales/business changed? (this was asked only in years 2023–2024)
- ☐ How do you currently use generative AI in your work? (this was asked only in years 2023–2024)

COMBINING THE WORK OF AI AND HUMANS

- ☐ What do you think combining the work of AI and humans means in your company in practice?
- ☐ How do you feel about “leading AI”?
- ☐ What kinds of changes have occurred in your work field in recent years, and how do you feel about these?
- ☐ What are your experiences about combining the work of AI and humans in your own work field?
- ☐ What do you know about integrating and using your unit's AI to lead your team today that you wish you knew before it was deployed? (this was asked only in years 2023–2024)
- ☐ How have the needs for management and leading people skills changed since the introduction of AI systems?
- ☐ Are there any new leadership skills that you need now more than before the introduction of AI?

INTERPERSONAL COMMUNICATION COMPETENCE

- ☐ How do you manage communications in your work?
- ☐ What kind of communication do you believe is required in the current situation?
- ☐ What do you think interaction means as related to AI? What kinds of interactions are required in the current situation?
- ☐ Have interactions with subordinates changed in some ways after combining AI and human work?
- ☐ What do you believe are the skills required for effective communication? Is it important to know how to listen, to argue for your point of view, to negotiate, etc.?
- ☐ What kind of motivation related to interactions do you need in your management work?
- ☐ What would you like to improve in your work in relation to communications?
- ☐ What are you satisfied with in relation to communications in your work?
- ☐ What other aspects related to interactions do you consider important in your work?
- ☐ Do you think you get enough support and instruction for suitable communications?

FINAL WORDS

- ☐ What else would you like to tell us?

Data availability

The data that has been used is confidential.

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