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ABSTRACT

In this paper, we investigate the process by which organizational commitment is influenced by job crafting among knowledge workers. To address this aim, we conducted a longitudinal qualitative case study in a software solutions development firm in Denmark. The findings from the study suggest that relational and cognitive job crafting encourage affective, normative, and continuous commitment among knowledge workers, which ultimately has a positive influence on retention. The study also highlights the considerable overlap between different types of job crafting, with task job crafting appearing to be a precursor to relational and cognitive job crafting. This paper contributes to the job crafting literature by providing a process-focused account of how it engenders knowledge workers' organizational commitment and to practice by suggesting how managers can support job crafting efforts to increase knowledge worker retention.

1. Introduction

Since Drucker first coined the term "knowledge workers" in 1959, there has been an ever-increasing interest in highly educated and experienced employees. Given the potential impact of knowledge workers on an organization's productivity and financial performance, existing research (e.g., Jayasingam, Govindasamy, & Singh, 2016; Wright et al., 2020) argues that managers must prioritize knowledge workers' commitment to ensure that the knowledge and expertise of these workers remain within the organization. Bontje et al. (2017) agree that identifying ways to retain highly committed knowledge workers should be at the forefront of managers' human resource strategies. Yet, Alvesson (2001) and Yigitcanlar, O'Connor, and Westerman (2008) note that this can be a major challenge for the management, given knowledge workers' high mobility.

In this paper, we investigate how job crafting, the process by which employees modify the boundaries of their jobs, can potentially influence knowledge workers' commitment to their organization (Tims et al., 2012; Wrzesniewski & Dutton, 2001). According to Berg et al. (2013, p. 3), rather than relying on the management to make jobs rewarding to employees, job crafting puts the employee in "the driver's seat" in making meaningful changes to a job. As knowledge workers are often characterized by their desire for autonomy and self-leadership, we would expect them to be highly amenable to driving their work (Drucker, 2000; Jacobs, 2017). Thus, job crafting may help satisfy knowledge workers' needs, such as their preference for independence and autonomy (Horwitz et al., 2003). This freedom can translate into workers increasing their demands and expectations, including for additional active involvement in their own management and leadership from their work, careers, and organizations (Drucker, 2000; Larsen, 2006). Traditionally, job crafting has been considered from an individual level perspective (Tims et al., 2010), yet team-oriented job crafting that examines the process by which teams jointly craft their tasks and the relational and cognitive boundaries of their work is receiving increasing attention in the literature (Tims et al., 2022). This approach acknowledging the social factors influencing job crafting (i.e., social connections both inside and outside the organization) that Wang et al. (2020) found positively affected job crafting behavior.

The literature supports the notion that job crafting has a positive influence on performance and a variety of attitudinal outcomes, such as flow, work engagement, job satisfaction, job security, and well-being (Buonocore et al., 2020; Knight & Parker, 2019; Leana et al., 2009; Toyama, Upadyaya, & Salmela-Aro, 2021; Wrzesniewski et al., 2013). Furthermore, Wang et al. (2018) and Tims and Bakker (2010) suggest that job crafting might enhance positive organizational outcomes, such as organizational commitment. Specifically, Wrzesniewski et al. (2013)

link job crafting behavior to meaning and identity by the alignment between expectations of work and the actual work or the preconceived vision of work. Ultimately this alignment would influence commitment (Meyer et al., 2012).

Still, studies specifically addressing links between job crafting and commitment are rare. A study by Qi et al. (2014) does, however, link affective commitment to job crafting behaviors in employees in Chinese manufacturing firms, although the study reports on a reverse connection, where affective commitment leads to job crafting. Further, the connection between job crafting and commitment is found in a few papers (Berber et al., 2022; Chang et al., 2020; Leana et al., 2009; Wang et al., 2018; Zhang et al., 2020). For example, Berber et al. (2022) found that job crafting positively influences the intention of employees of various professions to commit to staying in their job. Nevertheless, these studies neither focused specifically on commitment nor did they explore the details of the type of commitment or job crafting.

On the other hand, Leana et al. (2009) considered various job crafting types while conducting a study on job crafting and commitment among childcare workers and found links between commitment and collective job crafting or cocrafting done by a group. Other studies have also investigated various job crafting types and their relation to commitment. For example, Mcnaughtan et al. (2022) reported a link between relational and cognitive job crafting commitment among faculty members. Further, Wang et al. (2018) reported a quantitative assessment of the correlations between job crafting and affective commitment among employees in the manufacturing industry. However, while existing research acknowledges a link between job crafting and commitment, it neither provides insight on *how* job crafting may influence commitment, particularly in a knowledge worker context, nor on the various types of job crafting and how they are linked to different types of commitment.

Given the number of publications on job crafting, it is surprising that there are not more studies examining the link between job crafting and commitment, particularly considering the consistent findings that committed employees engage in positive organizational citizenship (Meyer, 2012), have low absenteeism rates (Paillé, 2012), and are unlikely to seek alternative employment (Jørgensen & Becker, 2015). Thus, identifying ways to encourage additional organizational commitment is highly relevant for scholars and managers alike. We argue that job crafting may be one way to encourage increased organizational commitment and consequently improve retention of an organization's most valuable knowledge assets. Le Blanc et al. (2017) stress that job crafting may help meet the changing demands and high competition characterizing knowledge work and therefore have a positive impact on the retention of an organization's most valuable assets. We know little about how knowledge workers engage in job crafting and how experiences with job crafting can encourage organizational commitment, which would result in a positive influence on retention of highly valuable employees.

To address this gap, the question underpinning this study is *How does knowledge workers' engagement in task and relational and cognitive crafting influence their experienced affective, normative, and continuance commitment?* To address this question, we conducted a qualitative, longitudinal case study on a Danish software solution development company facing extremely high rates of turnover among its software developers. We explored and analyzed how the software developers engaged in various types of job crafting over the course of nearly three years and how job crafting ultimately appeared to have a positive influence on their commitment and their desire to remain within the organization.

Consequently, firstly our study contributes to the theory and practice by investigating the links between job crafting and organizational commitment using a qualitative study. According to Knight and Parker (2019), job crafting literature has predominantly focused on cross-sectional meta-analyses, with few longitudinal or qualitative studies being reported. In addition, Lee and Lee (2018) specifically call for more qualitative studies on job crafting to fully explore how it

influences an individual's inner experiences. Further, Bindl et al. (2019) call for in-depth studies on specific jobs or occupations to understand how different forms of job crafting may differ across these jobs or occupations. However, intervention studies that describe the process by which employees engage in job crafting are rare. Specifically, our research provides insight into how different types of job crafting relate to different components of organizational commitment for knowledge workers, highlighting the interplay between affective, normative, and continuance commitment and cognitive, relational, and task job crafting. In doing so, our study suggests that one universal job crafting model may not be applicable or relevant for all types of jobs. Indeed, our research supports the notion that there may not be a "one-size-fits-all" model for job crafting or human resource (HR) management (HRM) practices, as emphasized by Van Beurden et al. (2021).

Second, our paper adopts a qualitative, longitudinal process perspective to job crafting, which Tims et al. (2016) asserted is important to help us gain an understanding of *how* employees identify ways to modify their jobs to align their own needs to those of their organization. Further, this addresses Wang et al.'s (2018) call for future studies investigating job crafting and commitment in a longitudinal study design. Third, although job crafting has been studied in a variety of contexts, there is scant knowledge about how organizations can encourage knowledge workers' affective commitment (May et al., 2002; Von Krogh, 2012). One exception of a study addressing affective commitment and knowledge workers was conducted by Jayasingam and Yong (2013) that reported that pay satisfaction and career management positively influenced affective commitment among low-knowledge workers but had no effect on high-knowledge workers. This study called for additional empirical research to identify strategies to encourage organizational commitment among knowledge workers. Indeed, identifying ways to engender the commitment of knowledge workers is a critical challenge for managers today (Bontje et al., 2017). Le Blanc et al. (2017) specifically argue that job crafting among knowledge workers is of critical importance because job crafting can create employee sustainability in a field with frequent technological changes and high international competition. They claim that an employer can stimulate job crafting to meet these demands in knowledge-intensive firms.

Before presenting our case study, we summarize the relevant literature on job crafting and organizational commitment, focusing on the context of a knowledge worker.

1.1. Job design and job crafting in a knowledge worker context

Job crafting provides individuals with the opportunity to informally influence and make proactive changes to their job design to fit their needs and abilities (Tims et al., 2010; Wrzesniewski & Dutton, 2001; Boehnlein and Baum (2022). There are essentially two theoretical frameworks applied in most studies on job crafting (Mäkikangas & Schaufeli, 2021). The first framework on job crafting is presented by Wrzesniewski and Dutton (2001), who propose three distinct job crafting techniques: (a) task crafting, defined as changing the content of work by altering the method or number of activities by increasing the level of responsibility defined in the formal job description; (b) relational crafting, defined as taking control of how, when, and with whom one interacts while doing a job; and (c) cognitive crafting, defined as changing the way tasks and relationships in a job are perceived. Individuals engaged in these job crafting activities can change the design of their work and social environment, which can optimize the fit between their job and their personal knowledge, skills, and preferences (Le Blanc et al., 2017; Tims & Bakker, 2010). Boehnlein and Baum (2022), drawing on Bipp and Demerouti (2015), note that employees may engage in job crafting to optimize this fit through either a gains perspective (i.e., promotion-oriented job crafting) or a loss protective perspective (i.e., prevention oriented).

The other dominating framework on job crafting, developed by Tims

and Bakker (2010), builds on the Wrzesniewski and Dutton's (2001) model and the Job Demands-Resource model (Demerouti et al., 2001; Lee & Lee, 2018). Tims and Bakker (2010) propose four alternative ways employees can engage in job crafting: increasing structural job resources, increasing social job resources, increasing challenging job demands, and decreasing job demands that hinder employees.

Throughout the last decade, the two perspectives have existed side by side. Lazazzara, Tims, and De Gennaro (2020) note that there are similarities between the two perspectives as changes to resources and demands associated with a job could entail both task and relational job crafting. In contrast, they note that Tims and Bakker's (2010) perspective does not include cognitive job crafting. This view suggests a change to an individual's perspective (i.e., cognitive job crafting) is not enough to qualify as job crafting because the job itself has not changed. Still, Niessen et al. (2016) argue that cognitive job crafting may enhance a fit with the work environment by changing the meaning of the work environment. For example, an individual may change their point of view that providing standard IT support is a boring work task to one that takes it to be meaningful in that it ensures safe and comfortable work solutions to a client. This change in perspective may positively influence a perceived fit with a job.

Bruning and Campion's (2018) job crafting taxonomy combines Wrzesniewski and Dutton's (2001) three dimensions of "role crafting" and Tims and Bakker's (2010) four dimensions of "resource crafting." Bruning and Campion (2018) further delineate between the dimensions, suggesting that elements of task job crafting may increase challenging job demands through what they refer to as work role expansion. In this case, employees might add additional tasks to their work if those tasks align with their personal or professional goals. The emphasis on the individual is further elaborated in a work by Bindl et al. (2019), who continue the development of the job crafting model by including individuals' needs and regulative focus, arguing that different forms of job crafting may be related to individuals' needs. However, the study design of Bindl et al. (2019) does not have an in-depth investigation of specific jobs, occupations, or industries and calls for additional research examining this.

1.2. Organizational commitment among knowledge workers

Organizational commitment is generally understood as the psychological bond between an employee and an organization that encourages the employee to remain with the organization (Meyer et al., 2012). The most often cited approach to commitment incorporates three distinct types of commitment: affective, continuance, and normative (Meyer & Allen, 1991). According to this three-component model (TCM) (Meyer & Allen, 1991), affective commitment is concerned with employees' experienced emotional and attitudinal attachment to an organization, which eventually results in a desire to remain as a part of the organization and participate in the achievement of organizational objectives; on the other hand, normative commitment is the employees' experienced loyalty and obligation to stay with a company (Meyer et al., 2012). Continuance commitment relates to employees' choice to stay with a company based on a cost–benefit calculation. Employees experiencing all three types of commitment will ostensibly have a great desire to remain within the organization, yet individual differences may lead to one type of commitment becoming the dominant explanation for voluntary turnover.

Despite the influence of individual differences on individuals' choice to leave or remain in an organization, it is affective commitment that is most often associated with a desire to stay (Huhtala & Feldt, 2016). Kanste's (2011) work and the organizational commitment model relate an individual's beliefs about their current job and the degree to which the job and organizational variables satisfy that individual's needs. Whether an employee perceives that an organization aims to satisfy their needs relates to perceptions of organizational support, which has been found to be the strongest predictor of affective commitment (Meyer

et al., 2012). Consequently, much of the commitment research has focused on identifying the managerial actions that would be perceived as demonstrations of organizational support (Klein et al., 2012).

This study investigates the relationships between job crafting and organizational commitment. Specifically, we aimed to understand how task, relational, and cognitive job crafting influence the experienced affective, normative, and continuance commitment among knowledge workers. The findings from this research contribute to further development of job crafting literature by focusing on the process by which job crafting encourages organizational commitment among knowledge workers over time and demonstrating how specific types of job crafting have a differential impact on the three types of organizational commitment. Further, the paper contributes to managerial practice by offering a strategy for encouraging organizational commitment among knowledge workers.

2. Methods

A longitudinal, qualitative, single-case study approach was used to understand how task, relational, and cognitive job crafting influences commitment among knowledge workers. This design was considered the most appropriate for gaining an in-depth and fulsome understanding of how employees experience change over time for several reasons. Specifically, the relatively few existing studies linking commitment and job crafting have been quantitative and have not addressed how job commitment may encourage commitment. Scholars have emphasized how qualitative, single-case studies can be particularly valuable in gaining an in-depth understanding of the complexities of events occurring within an organizational context (Yin, 2009). Further, the value of qualitative research that encompasses aspects of storytelling has long been emphasized in the literature (see Van Maanen, 1979), more recently by McAleese and Kilty (2019) as well as by Lewis and Hildebrandt (2020). Thus, through the qualitative approach, we were able to explore the dynamics, nuances, and meanings expressed by knowledge workers about how job crafting influences commitment. Additionally, the literature supports a longitudinal research design to investigate changes over time (Van Wingerden et al., 2017).

Data were collected at three points over nearly three years to identify changes in employees' experienced commitment in response to job crafting initiatives over time. For our single-case study, we selected an organization within the IT industry. We considered the IT industry to be of particular relevance for a study on organizational commitment among knowledge workers, given that the relatively short supply of IT workers and numerous alternatives for employment has resulted in a "war for IT talent" (Maier et al., 2015).

2.1. The research setting

Custom Software (CS) Inc. is headquartered in Denmark and was founded in the late 1980s with a formal mission to be a market leader in high-tech innovative software design. Starting with just 2 software engineers, the firm had grown to 145 employees by the time the study commenced. Approximately 125 employees are engaged in the development and implementation of both standard and customized software solutions for a wide range of public and private customers. Every developer had a minimum of a master's degree in computer science and an average of 10 years of experience in software solutions development. All the developers were 26–33 years of age and were born and educated in Denmark. All but three of the software developers employed at the organization at the time data were collected were male. Two years prior to the study, there had been a dramatic rise in the number of developers resigning from the firm, with less than 20% of them remaining 2 years after their initial employment. According to exit interviews, 98.6% of departing developers had accepted job titles similar to those they were leaving.

2.2. Data collection

The HR manager contacted the second author to facilitate the identification of the reasons for the high turnover rates and the potential solutions to the problem. To this end, a change team was established to include the second author and four volunteer developers and the HR manager. This change team resembled an action research team used in what is often referred to as second-person action research, where the researcher and members of an organization meet with the intention of understanding and addressing an issue of mutual interest (Heron & Reason, 2008). The purpose of convening this team was to ensure communication flow from the outside (i.e., from software developers) in and from within the change team back to the developers. Shortly after convening the change team and agreeing on the purpose of the team, data collection began.

Our study is based on empirical data collected at three points over the period of more than two years. During this period, developers were encouraged to identify ways in which they could make changes to their jobs and the workplace to "… align more with their wants and needs" (HR manager) and potentially reduce turnover. While the developers were encouraged to consider any potential changes regardless of type and scope, they were not introduced explicitly to the concept of job crafting.

To enhance theory development, we used multiple data sources in our study, including: 1) semistructured interviews, 2) field notes, and 3) archive data (e.g., exit interviews; Miles et al., 2014). In seeking triangulation (Patton, 1999), we used multiple sources to understand how job crafting influences commitment. More specifically, exit interviews provided a nuanced understanding of why many software developers chose to leave their jobs at the case organization and what factors were important to them when changing jobs. This information was considered when the job crafting initiative began to take shape. Moreover, field notes were helpful in providing insights into the processes involved in adopting new job tasks.

Three time points were established: T1 (at the beginning of the study), T2 (7 months after T1), and T3 (18 months and 11 months after T1 and T2, respectively). At each time point, field notes were taken, archival data were reviewed, and semistructured interviews were conducted with the nonchange team developers. Although efforts were made to conduct interviews with the same nonchange team developers at each time point, this was not always possible because of the high rate of turnover between T1 and T2. We denote interviews conducted with the same developers with an "r" (for repeat) and either T1 or T2 as follows: rT1, rT2, and rT3. If the interview was conducted with the same developer at T1, T2, and T3, it was denoted rT1, T2. It should be noted that quotes are not included for all interviewees at each time point.

The questions posed in the initial interviews (T1) were inspired by the TCM employee commitment survey (Meyer & Allen, 2004). The questions included, "What are your perceptions of *CS* and your work? What might increase your desire to remain with *CS*?" As it became apparent that developers were consciously making changes to their jobs, subsequent interviews (T2 and T3) focused on the changes that had already been made. For instance, the interviewees were asked if there had been any changes to their jobs, what those changes were, and how those changes had taken place. These questions were somewhat open-ended as the objective was to give the interviewees an opportunity to share their experiences. For instance, we asked, "Tell me about what has happened with your job over the past six months" and "What changes have you been involved in?" Between each data collection point, data were analyzed, and a summary was provided to the change team. In addition to an initial meeting prior to T1 (i.e., M1), meetings with the change team occurred shortly after T1 (i.e., M2) and T2 (i.e., T3). Following these meetings, a summary of the findings was communicated back to the developers. Based on this summary, the developers began engaging in job crafting. Table 1 provides an overview of the research and data collection process.

Table 1
The research and data collection process.

Time 1 (T1)	• **Meeting 1:** Change team meeting to discuss problems in-depth and to plan the data collection process • Sixteen interviews of approximately 45–60 minute duration each were conducted with developers selected according to their availability • **Meeting 2:** Change team meets with developers to brainstorm ideas for job crafting. On the basis of a summary of the interview data and review of the literature on job crafting and commitment amongst knowledge workers, the change team drafted a proposal for providing the developers with opportunities to make changes to their jobs
Time 2 (T2)	• Forty-five to sixty-minute-long interviews were conducted with 19 software developers (11 developers from T1 and 8 new ones) to assess their experiences with job crafting • **Meeting 3:** Meeting held by the change team to evaluate changes and to support planning of activities by the newly formed task teams
Time 3 (T3)	• Sixty-minute-long interviews were conducted with 23 developers (9 developers from T1, 5 new developers from T2, and 9 new developers from T3) for the purpose of gaining feedback on the opportunities for job crafting behavior and its influence on their commitment

Ethical guidelines for gathering, protecting, and using personally identifiable information were followed according to The Danish Research Council guidelines. We have given the organization and the interviewees unidentifiable pseudonyms and provided the interviewees and the HR manager with a draft of the completed paper for review and approval.

2.3. Analysis

We conducted a composite sequence analysis to understand participants' journeys through time (Miles et al., 2014), which in this case was the developers' experiences of job crafting activities and the influence these activities had on their perceptions of their commitment to the organization. Specifically, the individual developer's responses (denoted by a pseudonym) were reviewed separately using a thematic analysis (Braun & Clarke, 2006) and were organized according to the three types of job crafting (i.e., relational, job, and task) and organizational commitment (i.e., affective, normative, and continuance). We adopted Wrzesniewski and Dutton's (2001) perspective on job crafting as it includes all three dimensions of job crafting and focuses on employees altering the boundaries and conditions of their work tasks, relationships, and meanings rather than on only changing the level of job resources and demands (Lee & Lee, 2018). Additionally, it includes cognitive job crafting, which we would argue may be of particular relevance for knowledge workers, given the very nature of their work. Finally, this framework is most often used in qualitative studies, whereas the Tims and Bakker model is primarily used in quantitative studies (Niessen et al., 2016).

An iterative approach of data comparison and contrast through the coding process was adopted between the data and literature on commitment and job crafting (Miles et al., 2014). Thus, existing literature inspired the themes of the data analysis, and the data were scanned for related and fitting constructs. This procedure was followed for each individual developer at T1, T2, and T3 to develop groupings of trajectories. In developing these grouped trajectories, the process followed the two-decision rule: "(a) the theme itself had to be denotatively or connotatively identical and (b) at least two features had to be the same" (Miles et al., 2014, p. 212). As a result, 15 relatively distinct categories that reflect how employees perceived changes to commitment alongside job crafting initiatives were created. In rare cases where there was no complete consensus among the coders, the grouped trajectories were discussed and an agreement was reached. This composite sequence analysis displays the participants' collective journey across time, and it is graphically illustrated (Miles et al., 2014) in Fig. 1.
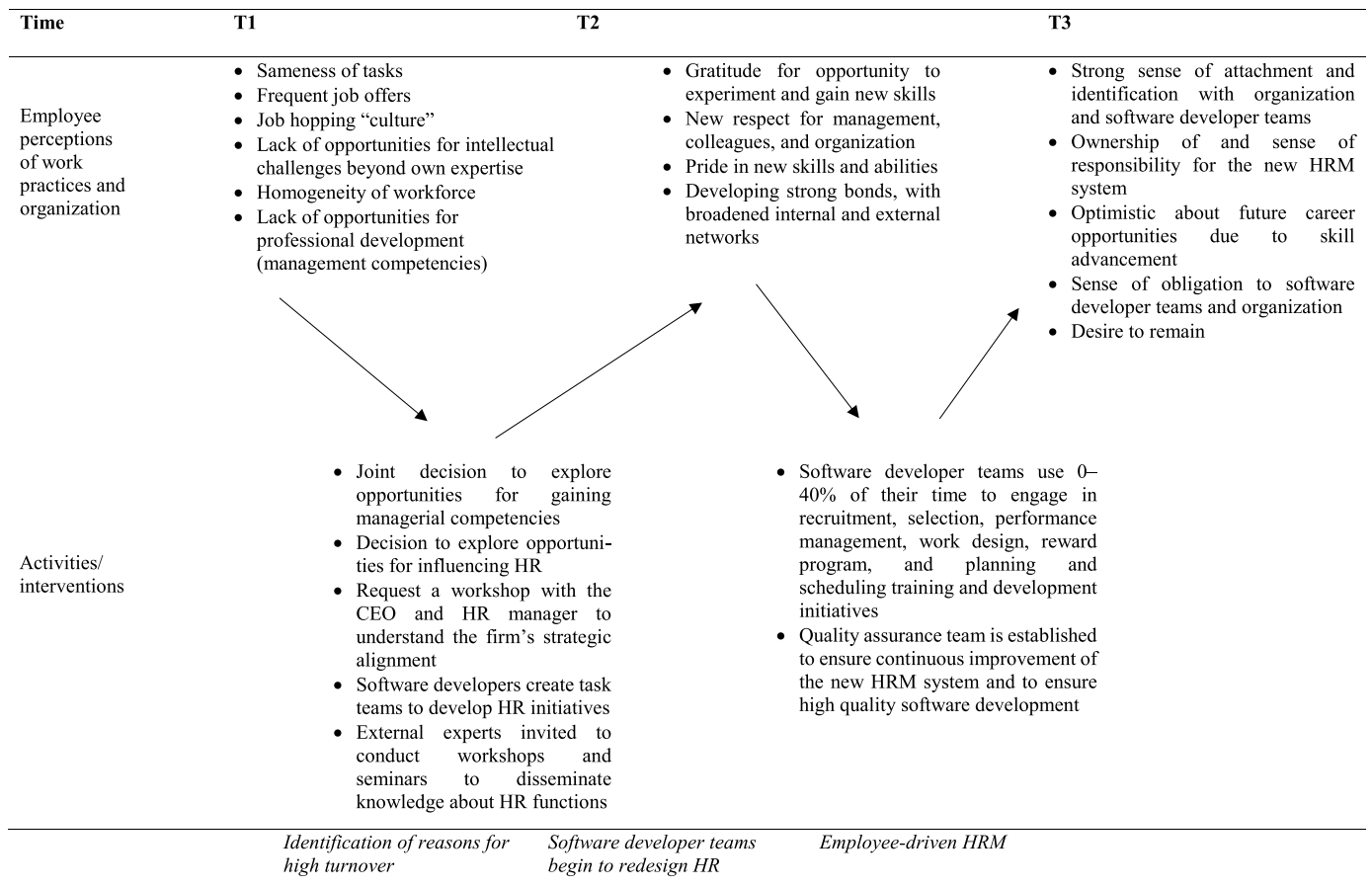
Time	T1	T2		T3
Employee perceptions of work practices and organization	• Sameness of tasks • Frequent job offers • Job hopping "culture" • Lack of opportunities for intellectual challenges beyond own expertise • Homogeneity of workforce • Lack of opportunities for professional development (management competencies)	• Gratitude for opportunity to experiment and gain new skills • New respect for management, colleagues, and organization • Pride in new skills and abilities • Developing strong bonds, with broadened internal and external networks		• Strong sense of attachment and identification with organization and software developer teams • Ownership of and sense of responsibility for the new HRM system • Optimistic about future career opportunities due to skill advancement • Sense of obligation to software developer teams and organization • Desire to remain
Activities/ interventions		• Joint decision to explore opportunities for gaining managerial competencies • Decision to explore opportunities for influencing HR • Request a workshop with the CEO and HR manager to understand the firm's strategic alignment • Software developers create task teams to develop HR initiatives • External experts invited to conduct workshops and seminars to disseminate knowledge about HR functions	• Software developer teams use 0–40% of their time to engage in recruitment, selection, performance management, work design, reward program, and planning and scheduling training and development initiatives • Quality assurance team is established to ensure continuous improvement of the new HRM system and to ensure high quality software development	
	Identification of reasons for high turnover	*Software developer teams begin to redesign HR*	*Employee-driven HRM*	

Fig. 1. Composite sequence analysis: job crafting and commitment experiences of knowledge workers.

3. Empirical evidence and analysis

Fig. 1 provides an overview of the main events and activities (squares) that occurred at T1, T2, and T3, as well as some of the most frequent themes relating to the developers' perceptions of those events and activities (ovals).

3.1. T1

During the first interviews conducted, developers expressed general satisfaction with the organization but did not appear to experience *affective commitment* as defined by Meyer and Allen (1991), which is suggested by the following statement: "I like *CS* fine. But I wouldn't say I like it or feel more attached to it than the others where I have worked. It's a good place to work, but there are lots of good places to work" (John). There were indications that affective commitment was negatively influenced by the high turnover rates in the organization, as claimed by one of the developers: "One of the hard things about working here is that people are leaving as fast as they are coming. There's no use really getting used to anyone because they will likely be gone soon" (Dan).

CS's culture of high turnover may also have impacted *normative commitment*. Specifically, several developers noted that it is very common for developers to move from one organization to another, as reflected in the quote: "People change jobs all the time in this line of work" (Rob). Zhang et al. (2012) suggested that high rates of turnover are common among knowledge workers in general and particularly within the IT industry.

Finally, although there were indicators of *continuous commitment*, which relates to the costs of leaving the organization (Meyer et al., 2012), the motivations for staying were not linked closely to the organization. For example, Dan said, "I get offers all the time, but my wife works at the college right down the street and we like to drive in together, so I stay." On the other hand, continuous commitment could also be interpreted to be quite low given the rich opportunities for finding equally attractive jobs elsewhere, as summarized by Lars who said, "I wouldn't say there is anything keeping me here. It's a good job and the pay is good, but it's comparable to our competitors, and there are lots of other options."

Developers also appeared to be relatively satisfied with their work itself, although it had become somewhat rote. This is reflected in Peter's words: "The tasks are put together in different ways for the different projects, but they are much the same in terms of the programming, which is what we spend 80% of our time on." Some of the developers indicated that while they were satisfied with their jobs in general, there were aspects that they would like to see changed. For instance, comments made by many of the developers suggested that they were looking for more from their work. One developer remarked, "I love what I do, but sometimes think I might like to do something else, not just programming" (Tom). Another developer said, "I like my work a lot but there are times I wish I could do other things too. I think I'd like to try a management job at some point, but all the companies doing what we do are really flat" (Carsten). The idea of a desire to move into management positions was noted by Larsen (2006), who suggested that knowledge workers are often motivated to engage in managerial activities. It was in fact these types of responses that laid the foundation for the changes the developers began to make in their work and organization that were recorded at T2.

3.2. T2

In a brainstorming meeting with the change team, the developers began exploring opportunities to "… make [their] jobs and the organization more of what [they] wanted it to be" (Brian). Several developers admitted that they had already given significant thought as to how they might change their roles, particularly when they became frustrated with a situation. For instance, Henrik claimed:

> I'm an engineer at heart and that means I'm always thinking about how to change things … ways to fix them. We do take turns as project leaders and we're all involved in new product development, but I've thought of branching out more.

After the developers in the change team shared an overview of the data collected up to this point with their colleagues, a consensus was reached around the idea of integrating HR activities into the developers' work, which led to tangible excitement among the developers about trying something different. This is seen in Henrik's words: "This is totally unexplored territory for me, for us all. We have never done any HR activities. I never imagined doing it myself."

To start, developers began looking at the recruitment and selection practices, as they felt that having an influence on who was hired would be meaningful to them in their daily work. They also felt that they could use their knowledge as developers to enrich these practices. After meeting with the HR manager to discuss specifics about how they could be involved and eventually take responsibility for selecting new developers, small task teams were established to develop recruitment and selection practices. To this end, one of the task teams spent time researching advertisements used by other firms and recruitment agencies, while another attended a seminar on ethical staffing. When the task teams convened, one of the developers remarked:

> … HR is a lot more complex than I ever imagined. It's not just about putting an ad out there and then picking the best man that walks in [sic] the door. How we recruit and hire people has to be thought of strategically, and how we do that will make a big difference in how we do other things and maybe make the difference when it comes to keeping the developers we want here. (Sara)

The developers invited the CEO to engage with them on the long-term plans for the organization and scheduled additional seminars and meetings with the staffing experts to ensure processes were strategically developed. This interaction with the CEO and the scheduling of these planning meetings could be seen as a means for the developers to increase their social resources (Tims & Bakker, 2010) or what Rofcanin et al. (2019) refer to as expansion-oriented relational job crafting, where employees expand the number, type, and scope of interactions with others. Within a few months, the software development teams had fully integrated recruitment and selection practices into their regular workdays as they continued to complete software development projects. Additionally, task teams were being created to explore opportunities to do the same with other HR functions, including the development of training and development initiatives and the redesign of the performance management and rewards system. Additionally, to ensure developers' software development activities still received the required attention, individual developers engaged in job redesign activities.

The changes made to the developers' work during T2 represent the three types of job crafting identified by Wrzesniewski and Dutton (2001) and is also consistent with role crafting as defined by Bruning and Campion (2018). Specifically, the developers appeared to engage in task job crafting using the knowledge of their own work to develop HR processes, which involved adding tasks to their work and changing their roles and responsibilities.

Task job crafting also seemed to pave the way for *relational job crafting*, which appeared to occur naturally as the developers broadened their networks to gain new knowledge on how to design HR processes, as described here by two of the developers, "When we started making plans for this [becoming involved in HR activities], it was like a whole new side of everything opened up. We were introduced to a lot of new people and our networks have expanded exponentially already" (Lars, rT1) and:

> Just this week, I have talked to other developers who I had only met before … asking for ideas and getting input. I have had meetings with the CEO, some project managers, and the HR manager. I didn't have any reason to meet with them before … not just meetings for the sake of meetings, either. We are all working on something new together, and we are having fun with it. (Dan, rT1)

Moreover, through the task of job crafting, opportunities for *cognitive job crafting* arose as the developers sought to strategically align the design of HR practices with the company's goals and work with the complexity inherent in effective HR management (HRM). Concerning this, Tom (rT1) remarked:

> I like that there is not always a right and wrong answer like with the programming where something works or it doesn't … Now, it really takes looking at what we are going to do from many angles and thinking about them in different ways. It engages a different part of my brain.

Furthermore, one of the developers suggested that working with HR encompassed a very different type of learning for him:

> … we went to a seminar a few weeks ago about new product development, and the speaker talked about different types of learning … single and double loop learning and learning to learn. I think the first kinds apply to what we have always done, but now we are learning to learn, and it is very exciting. It engages the mind in new ways all of the time. (Martin)

We would also argue that a tangible change occurred in how the developers perceived their work and the organization between T1 and T2 and that these changes may have already begun to influence their organizational commitment. In particular, we noted evidence of growing affective commitment in the interview responses at T2, as seen in the following quote by Carsten, rT1:

> I am proud to be a part of what we are doing and proud to be working in an organization that treats its employees with such respect. I didn't feel this way before at all, so having the opportunity to change the nature of my job has definitely made a difference in how I feel about *CS*.

As social exchange theory suggests (Cook et al., 2013), the increased affective commitment may have been encouraged by the developers' desire to reciprocate the good deeds of the HR manager and the organization. This is illustrated by Christian who said, "I do feel like I owe it to *CS* and [HR manager]. He totally put his job on the line." Similarly, Bo explained, "I have a ton of respect for [HR manager] and [CEO] for going out on a limb with this. They didn't have to do this and are investing a lot in it so we can be happier here."

Becoming involved in task teams and being a part of developing a new HR system may also have had a positive impact on normative commitment, as the developers began to "… feel a lot more a part of things now that we have started this. It's like we are building something together, and I like that" (Lars, rT1). In addition, several comments suggested that the developers felt invested in the company and the work they were doing as a result of the job crafting. One developer said, "I've changed jobs a lot … four, no six times in five years, I guess. I get restless. I'm not feeling that anymore, and I want to stay to see how this plays out" (Peter, rT1); and Gert said, "I haven't thought about looking for something else since we started this, actually."

The impact of growing commitment on voluntary turnover, which the HR manager confirmed had dropped dramatically by the commencement of data collection at T2, appeared to be significantly pronounced at the final data collection point. This is summarized below.

3.3. T3

When the interviews were conducted at T3, the developers had moved beyond the most active task of job crafting, and HR practices were fully integrated into their workdays. Thus, most of the interview responses were retrospective in terms of what had been done and how the job crafting initiatives had influenced their organizational commitment. As with T2, there were indications that all three types of job crafting strengthened developers' attachment to *CS*. For instance, Dan (rT1T2) commented, "I am telling people all the time about what an awesome workplace this is … friends working at other places are jealous." Moreover, Martin (rT2) remarked, "When I talk to my friends and family, now I have things to tell them about that are interesting that come up because I am doing such different things and meeting so many different people. I don't think I talked about my work to them much at all before." All these indicate identification with an organization and are characteristic of affective commitment (Meyer et al., 2012). The basis for the stronger affective commitment appears to be related to all aspects of job crafting, with relational and cognitive facets mentioned most often. Nevertheless, it appeared that task job crafting was a precursor to both cognitive and relational job crafting. Specifically, Henrik (rT1T2) explained:

> We are still doing our projects, of course, but there are so many other things as well. Now we are always looking to improve all of our HR activities … better ways to ask questions and get a good dialogue going with candidates … looking for different types of training and incentives that appeal to the very different wants of the employees. It's never the same thing anymore. I love that it's challenging and different.

We would attribute these experiences to both task and cognitive job crafting. Paul (rT2) explained how positive cognitive job crafting had been:

> I have learned a lot and realize that things that seemed simple before are pretty complex and have to be considered from a very different angle, which I really like. I have a new appreciation for [the HR manager], but also the company for providing us with this opportunity for growth.

On the other hand, Paul (rT2) noted that the complexity of working on the HR initiatives would sometimes become too much, and he really appreciated being able to opt out of those activities for periods of time due to the way in which the task forces and work had been redesigned:

> I have to admit that there are times I really want to just stick to the programming because that is what I know best and it's a lot clearer cut. There are times when I am not sure I want that responsibility, but then I can just take more time to work on my projects and let others step in with the HR. After doing that for a few weeks, I'm usually ready to get back into it.

Thus, in this case, job crafting appeared to increase job demands, which is one of the three dominating job crafting components identified by Tims and Bakker (2010). Developers also mentioned how their expanded networks had enriched their work experiences, as explained by Frank (rT2):

> … I might have been working with more people in a larger company, but they would still all be programmers doing the same kinds of things as me. Over the past year, I have been meeting with people with very different jobs and backgrounds, and it's really great to find common interests with them. I have some solid working relationships that would never have been possible before and haven't been possible at other jobs.

The relational job crafting also seemed to have a positive influence on normative and continuous commitment, as illustrated by the following quote:

> I will likely stay here for a long time. I can't think of what would make me consider another job. We have invested a lot of ourselves in this and we all want it to work. I wouldn't want to jeopardize that, and I don't think anyone on my team would be able to walk away. (Martin, rT1, T2)

Similarly, (Lars, rT1, T2) said "I was offered a big jump in salary to manage a high-tech project, and I turned it down without a thought. I am gaining management experience that is unique in our field."

In section 4, we discuss the findings presented above and then consider the theoretical and practical implications of the study as well as the limitations that should be taken into consideration.

4. Discussion

This study focuses on links between organizational commitment on one hand and task, relational, and cognitive job crafting on the other because of our *a priori* assumption that cognitive job crafting might be especially relevant for knowledge workers. Indeed, cognitive job crafting appeared to be of central importance to these knowledge workers, which suggests that different job crafting models may be more or less applicable to specific contexts. The importance of considering contexts is emphasized by Boehnlein and Baum (2021) who note that contextual factors may moderate the effect of job crafting on performance.

Thus, our findings ultimately suggest that there may not be a universal model of job crafting that fits all types of jobs and that some types of job crafting may be more relevant in some contexts and when focusing on specific outcomes (e.g., commitment). For instance, the model posited by Tims and Bakker (2010) may be especially relevant for administrative contexts, whereas that presented by Bruning and Campion (2018) appears relevant in the knowledge worker context as it addresses both role crafting from Wrzesniewski and Dutton's (2001) model and resource crafting from Tims and Bakker's (2010) model. The notion that different strategies can be applied successfully across different types of jobs or even within one type of job is emphasized by Bindl et al. (2019) who propose that individuals may adopt different strategies for job crafting depending on their individual needs for autonomy, competence, and relatedness.

4.1. Cognitive utilization and challenges

The importance of cognitive job crafting discovered in this study may not be surprising as we explored job crafting among knowledge workers, who are often described as individuals with the skills and motivation to communicate, coach, cocreate new insights, and implement new ideas and whose knowledge and expertise are a central part of the work (Horwitz et al., 2003). This research demonstrated the possibility of engaging in cognitive job crafting to change thoughts about work context and provide an alternative way of applying knowledge from how it has been applied in the past. Thus, the job crafting activities developed seemed to provide new reflective ways of applying and building new knowledge, which was appreciated by the developers as a novel way of being managed. These findings lead us to question Tims and Bakker's (2010) argument that changes in the employees' perspectives of their work should not be considered as a type of job crafting.

Notably, Alvesson and Spicer (2012) criticize traditional knowledge management, arguing that in their battle for successful management of cognitive skills, organizations tend to ignore or even restrict opportunities for reflective thinking and to fully exploit knowledge workers' skills in alternative ways. From our study, it appears that job crafting, and perhaps cognitive job crafting in particular, may be one way for organizations to provide employees with additional opportunities for reflective thinking.

4.2. Social relations and networks among knowledge workers

Our study also highlighted the importance of relational job crafting on organizational commitment. The developers' networking opportunities and access to others helped them identify with the organization and feel indebted to the HR manager and the CEO for giving them the opportunity to engage in job crafting. According to Allen and Meyer (1990), networking may heighten employees' emotional attachment and identification with their organization. Further, normative commitment appeared to be positively influenced by relational job crafting, as the developers noted they would not have opportunities to build and strengthen their networks in other organizations. A study by McCallum et al. (2014) found internal social networking activities positively influenced employees' normative and affective commitment to an organization, whereas external networking was negatively related to normative commitment.

The notion that social relations at work can enhance motivation has long been recognized in job design literature, although interest has waxed and waned (Kilduff & Brass, 2010). Looking back, Hackman and Lawler (1971) published a precursor to the job characteristic model (Hackman & Oldham, 1976), where two social dimensions, namely, dealing with others and friendship opportunities, were included in addition to the core job dimensions of variety, autonomy, task identity, and feedback. Further, in a study among knowledge workers' roles and actions, Reinhardt et al. (2011) concluded that networking activities rank second in the list of knowledge actions—just after expert search. Moreover, the importance of networking among knowledge workers has been emphasized in literature because it increases knowledge sharing (Swart et al., 2014). Additionally, in a study of knowledge workers, Alvesson (2001) found social interactions within groups to be more crucial to the success of a project than its technical aspects. Quite recently, Rofcanin et al. (2019) discovered that expansion-oriented relational job crafting may enhance employee engagement.

4.3. Job crafting and organizational commitment over time

Our study highlights how employees' experiences of commitment may change over time. Past research on commitment predominantly considered it as a static construct and focused on the affective, continuance, or normative and virtually ignored changes in commitment over time (Meyer et al., 2012; Solinger et al., 2015). Still, few studies have considered changes in commitment (e.g., Vandenberghe et al., 2011). More specifically, these studies use latent growth modeling and have found a decline in affective commitment after organizational entry, which is primarily attributed to the relative success of the socialization process but also indicates that a change in commitment may be expected (Bauer et al., 2007). Further, Solinger et al. (2015) studied the dynamic microstructure of organizational commitment by looking at the affective, cognitive, and behavioral aspect of commitment and found that the within-person change of affective commitment alters more slowly than do cognitive components. Thus, enhancement of affective commitment requires a large investment and a long-term perspective.

4.4. Limitations, contributions, and future research

One limitation of this study is its single-case design that relates to only one context. Although this design has been criticized for its lack of methodological rigor (Yin, 2009), scholars (e.g., Patton & Appelbaum, 2003) recognize its value when the goal is to understand phenomena in a real-life context, as is the case in the present study. In particular, our goal was to obtain an in-depth understanding of how knowledge workers experienced job crafting and how this influenced their commitment to the organization.

Another limitation of this study relates to the conceptualization of commitment and specifically the use of TCM. While TCM is the most widely accepted understanding of commitment, some scholars argue that numerous conceptualizations of workplace commitment have emerged, including some that emphasize that commitment is experienced on a continuum, with psychological bonds occurring in multiple areas such as one's career, job, and coworkers (Klein et al., 2012). In this study, we did not consider multiple commitment foci, as commitment to the organization was our primary focus. However, based on the collected data, we could speculate that commitment to one's career and job would have initially been high at T1, whereas commitment to the organization and to the coworkers was encouraged through the job crafting process. Further, we might suggest that the shift from alternative foci (e.g., careers and jobs) to organizational commitment may have been mostly related to relational job crafting, where the relationship between other individuals in the organization (employees and managers) was strengthened.

A third limitation is that we did not differentiate between individual- and collective-level job crafting, as has been the case in some of the previous research on job crafting as explained by Mäkikangas et al. (2017). While the job crafting activities described in our study were completed collectively in task teams, our focus was on the impact of those changes on the individual developer's organizational commitment. Consequently, it was possible to note some individual differences between the developers and their experiences with job crafting. Although the job crafting activities were experienced as positive by the majority of developers, there were indications that these activities had become somewhat overwhelming for some. Rofcanin et al. (2019) refer to this as a potential dark side of job crafting and emphasize that individual differences, including employees' motives for engaging in job crafting, must be considered to determine whether job crafting will have a positive or a negative influence on engagement. Our study suggests that there may be an interaction between individual differences and the type, intensity, or speed of the changes being made to the job as some of the developers may become overwhelmed and seek refuge in the familiar aspects of their jobs. A happy medium appeared to be reached by providing developers with opportunities to "opt out" of the complex aspects of the redesigned jobs when needed. More research on potential interactions between individual- and collective-level job crafting would provide important insights into how individual differences impact experienced commitment through job crafting.

On the other hand, our study shows a promising agenda for future research on job crafting and commitment among knowledge workers with the future work possibly adopting both a qualitative and quantitative approach. A quantitative study could provide statistical measures and generalizable results on the link between the three types of job crafting and commitment. Further, network analysis among knowledge workers could provide reasons for the positive influence of relational job crafting on commitment. Additional research on individual-level factors (e.g., self-esteem, locus of control, and cognitive abilities) could be relevant in furnishing a rich understanding of some of the conditions that would impact the relationship between job crafting and organizational commitment.

Our paper contributes to the literature in several ways. First, it expands the existing job crafting and commitment knowledge by showing an important link between job crafting and commitment and the nuances associated with this link, which have not been expressed in existing literature. Secondly, our research contributes to the knowledge of commitment among knowledge workers by focusing on job crafting. We found that cognitive and relational job crafting encourage organizational commitment among knowledge workers but task crafting had a limited dominating role. That said, it appeared that task job crafting may be a precursor to both relational and cognitive job crafting, as it seemed necessary for the scope of a job to change before opportunities for developing new relationships or engaging in cognitive challenges could be created. In addition, cognitive and relational job crafting activities appeared to be most strongly associated with affective commitment, followed by continuance and normative commitment. Finally, our longitudinal case study contributes to the emerging literature emphasizing

the dynamic nature of organizational commitment called for in a number of reviews (Bentein, 2016; Van Wingerden et al., 2017).

The findings from this study also have important managerial implications. Although transferring responsibility for HRM to employees may be costly and thus practically prohibitive for many firms, knowledge-intensive organizations challenged by a high voluntary turnover could be open to ways in which employees could craft their jobs to be more cognitively challenging. Additionally, job crafting provides increased opportunities to build meaningful relationships that support affective, normative, and continuance commitment, which may be especially attractive to knowledge workers. Consequently, management may improve knowledge worker retention by facilitating opportunities for job crafting.

5. Conclusion

The findings from our longitudinal case study of a Danish software company suggest that job crafting may have a positive influence on organizational commitment among knowledge workers. Specifically, cognitive and relational job crafting may be of importance to knowledge workers as these types of crafting seem to impact all three types of commitment. Thus, the way knowledge workers perceive job crafting initiatives is not simply meaningful to an individual but is also meaningful to an organization because increased commitment can have a profound effect at an organizational level by securing a firm high-quality work, improved processes, and organizational survival.

References

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63*(1), 1–18.

Alvesson, M. (2001). Knowledge work: Ambiguity, image and identity. *Human Relations, 54*(7), 863–886.

Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology, 92*(3), 707–721. https://doi.org/10.1037/0021-9010.92.3.707

Bentein, K. (2016). Tracking change in commitment over time: The latent growth modeling approach. In J. P. Meyer (Ed.), *Handbook of employee commitment* (pp. 462–475). Chelteenham UK: Edward Elgar Publishing. https://doi.org/10.4337/9781784711740.00048.

Berber, A., Findikli, M. A., Marescaux, E., Rofcanin, Y., Mughal, F., & Swart, J. (2022). Exploring the effects of reduced load work arrangements (RLWAs): The role of individual autonomy and workplace level justice perceptions. *European Management Journal.* https://doi.org/10.1016/j.emj.2022.04.002.

Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2013). Job crafting and meaningful work. In B. J. Dik, Z. S. Byrne, & M. F. Steger (Eds.), *Purpose and meaning in the workplace* (pp. 81–104). American Psychological Association. https://doi.org/10.1037/14183-005.

Bindl, U. K., Unsworth, K. L., Gibson, C. B., & Stride, C. B. (2019). Job crafting revisited: Implications of an extended framework for active changes at work. *Journal of Applied Psychology, 104*(5), 605.

Bipp, T., & Demerouti, E. (2015). Which employees craft their jobs and how? Basic dimensions of personality and employees' job crafting behaviour. *Journal of Occupational and Organizational Psychology, 88*(4), 631–655.

Boehnlein, P., & Baum, M. (2022). Does job crafting always lead to employee well-being and performance? Meta-analytical evidence on the moderating role of societal culture. *International Journal of Human Resource Management, 33*(4), 647–685.

Bontje, M., Musterd, S., & Sleutjes, B. (2017). Skills and cities: Knowledge workers in Northwest-European cities. *International Journal of Knowledge-Based Development, 8*(2), 135–153.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bruning, P. F., & Campion, M. A. (2018). A role–resource approach–avoidance model of job crafting: A multimethod integration and extension of job crafting theory. *Academy of Management Journal, 61*(2), 499–522.

Buonocore, F., de Gennaro, D., Russo, M., & Salvatore, D. (2020). Cognitive job crafting: A possible response to increasing job insecurity and declining professional prestige. *Human Resource Management Journal, 30*(2), 244–259.

Chang, P. C., Rui, H., & Lee, A. Y. P. (2020). How having a calling leads to job crafting: A moderated mediation model. *Frontiers in Psychology, 11*, 1–11.

Cook, K. S., et al. (2013). Social exchange theory. In *Handbook of social psychology* (pp. 61–88). Dordrecht: Springer.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499–512. https://doi.org/10.1037//0021-9010.86.3.499

Drucker, P. F. (2000). Managing knowledge means managing oneself. *Leader to Leader, 16*(2), 8–10, 2000.

Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology, 55*(3), 259. https://doi.org/10.1037/h0031152

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance, 16*(2), 250–279. https://doi.org/10.1016/0030-5073(76)90016-7

Horwitz, F. M., Heng, C. T., & Quazi, H. A. (2003). Finders, keepers? Attracting, motivating and retaining knowledge workers. *Human Resource Management Journal, 13*(4), 23–44.

Huhtala, M., & Feldt, T. (2016). The path from ethical organisational culture to employee commitment: Mediating roles of value congruence and work engagement. *Scandinavian Journal of Work and Organizational Psychology, 1*(1). Article 3.

Jacobs, R. L. (2017). Knowledge work and human resource development. *Human Resource Development Review, 16*(2), 176–202.

Jayasingam, S., Govindasamy, M., & Singh, S. K. G. (2016). Instilling affective commitment: Insights on what makes knowledge workers want to stay. *Management Research Review, 39*(3), 266–288.

Jayasingam, S., & Yong, J. R. (2013). Affective commitment among knowledge workers: The role of pay satisfaction and organization career management. *International Journal of Human Resource Management, 24*(20), 3903–3920.

Jørgensen, F., & Becker, K. (2015). Balancing organizational and professional commitments in professional service firms: The HR practices that matter. *International Journal of Human Resource Management, 26*(1), 23–41.

Kanste, O. (2011). Work engagement, work commitment and their association with well-being in health care. *Scandinavian Journal of Caring Sciences, 25*(4), 754–761. https://doi.org/10.1111/j.1471-6712.2011.00888

Kilduff, M., & Brass, D. J. (2010). Job design: A social network perspective. *Journal of Organizational Behavior, 31*, 309–318.

Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012). Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *Academy of Management Review, 37*(1), 130–151.

Knight, C., & Parker, S. K. (2019). How work redesign interventions affect performance: An evidence-based model from a systematic review. *Human Relations, 74*(1), 69–104, 0018726719865604.

Larsen, H. H. (2006). *Human resource management: Licence to work: Arbejdslivets tryllestøv eller håndjern? (Work life's magic or handcuffs?).* Holte: Valmuen.

Lazazzara, A., Tims, M., & De Gennaro, D. (2020). The process of reinventing a job: A meta-synthesis of qualitative job crafting research. *Journal of Vocational Behavior, 116*, Article 103267. https://doi.org/10.1016/j.jvb.2019.01.001

Le Blanc, P. M., Demerouti, E., & Bakker, A. (2017). How can I shape my job to suit me better? Job crafting for sustainable employees and organizations: An international perspective. In N. Chmiel, F. Fraccaroli, & M. Sverke (Eds.), *An introduction to work and organizational psychology: An international perspective.* John Wiley & Sons.

Leana, C., Appelbaum, E., & Shevchuk, I. (2009). Work process and quality of care in early childhood education: The role of job crafting. *Academy of Management Journal, 52*(6), 1169–1192.

Lee, J. Y., & Lee, Y. (2018). Job crafting and performance: Literature review and implications for human resource development. *Human Resource Development Review, 17*(3), 277–313.

Lewis, P. J., & Hildebrandt, K. (2020). *Storytelling as qualitative research.* SAGE Publications Limited.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2015). Who really quits?: A longitudinal analysis of voluntary turnover among IT personnel. *Database for Advances in Information Systems, 46*(4), 26–47.

Mäkikangas, A., Bakker, A. B., & Schaufeli, W. B. (2017). Antecedents of daily team job crafting. *European Journal of Work & Organizational Psychology, 26*(3), 421–433.

Mäkikangas, A., & Schaufeli, W. (2021). A person-centered investigation of two dominant job crafting theoretical frameworks and their work-related implications. *Journal of Vocational Behavior, 131*, Article 103658.

May, T. Y. M., Korczynski, M., & Frenkel, S. J. (2002). Organizational and occupational commitment: Knowledge workers in large corporations. *Journal of Management Studies, 39*(6), 775–801.

McAleese, S., & Kilty, J. M. (2019). Stories matter: Reaffirming the value of qualitative research. *Qualitative Report, 24*(4), 822–845.

McCallum, S. Y. L., Forret, M. L., & Hans-Georg, W. (2014). Internal and external networking behavior: An investigation of relationships with affective, continuance, and normative commitment. *Career Development International, 19*, 595–614.

McNaughton, J., Thacker, R., Eicke, D., & Freeman, S. (2022). Committed to their craft: Understanding the relationship between job crafting and work commitment among faculty in the United States. *Higher Education Quarterly, 76*(2), 367–384.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89.

Meyer, J. P., & Allen, N. J. (2004). *TCM employee commitment survey academic users guide 2004.* London, Ontario, Canada: The University of Western Ontario, Department of Psychology.

Meyer, J. P., Stanley, D. J., Jackson, T. A., McInnis, K. J., Maltin, E. R., & Sheppard, L. (2012). Affective, normative, and continuance commitment levels across cultures: A meta-analysis. *Journal of Vocational Behavior, 80*(2), 225–245.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, California: SAGE Publications, Inc.

Niessen, C., Weseler, D., & Kostova, P. (2016). When and why do individuals craft their jobs? The role of individual motivation and work characteristics for job crafting. *Human Relations, 69*(6), 1287–1313.

Paillé, P. (2012). Employee retention: Exploring the relationship between employee commitment, organisational citizenship behaviour and the decision to leave the

organisation. *International Journal of Human Resources Development and Management, 12*(1–2), 140–157.

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research, 34*(5 Pt 2), 1189.

Patton, E., & Appelbaum, S. H. (2003). *The case for case studies in management research.* Management research news.

Qi, J., Li, J., & Zhang, Q. (2014). How organizational embeddedness and affective commitment influence job crafting. *Social Behavior and Personality: International Journal, 42*(10), 1629–1638.

Reinhardt, W., Schmidt, B., Sloep, P., & Drachsler, H. (2011). Knowledge worker roles and actions—results of two empirical studies. *Knowledge and Process Management, 18*(3), 150–174.

Solinger, O. N., Hofmans, J., & Van Olffen, W. (2015). The dynamic microstructure of organizational commitment. *Journal of Occupational and Organizational Psychology, 88*, 773–796.

Swart, J., Kinnie, N., Rossenberg, Y., & Yalabik, Z. Y. (2014). Why should I share my knowledge? A multiple foci of commitment perspective. *Human Resource Management Journal, 24*(3), 269–289.

Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology, 36*(2), 1–9.

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior, 80*(1), 173–186.

Tims, M., Derks, D., & Bakker, A. B. (2016). Job crafting and its relationships with person–job fit and meaningfulness: A three-wave study. *Journal of Vocational Behavior, 92*, 44–53.

Toyama, H., Upadyaya, K., & Salmela-Aro, K. (2021). Job crafting and well-being among school principals: The role of basic psychological need satisfaction and frustration. *European Management Journal.* https://doi.org/10.1016/j.emj.2021.10.003

Van Beurden, J., Van de Voorde, K., & Van Veldhoven, M. (2021). The employee perspective on HR practices: A systematic literature review, integration and outlook. *International Journal of Human Resource Management, 32*(2), 359–393.

Van Maanen, J. (1979). Reclaiming qualitative methods for organizational research: A preface. *Administrative Science Quarterly, 24*(4), 520–526.

Van Wingerden, J., Bakker, A. B., & Derks, D. (2017). The longitudinal impact of a job crafting intervention. *European Journal of Work & Organizational Psychology, 26*(1), 107–119.

Vandenberghe, C., Panaccio, A., Bentein, K., Mignonac, K., & Roussel, P. (2011). Assessing longitudinal change of and dynamic relationships among role stressors, job attitudes, turnover intention, and well-being in neophyte newcomers. *Journal of Organizational Behavior, 32*(4), 652–671.

Von Krogh, G. (2012). How does social software change knowledge management? Toward a strategic research agenda. *The Journal of Strategic Information Systems, 21*(2), 154–164.

Wang, H. J., Demerouti, E., Blanc, P. L., & Lu, C. Q. (2018). Crafting a job in 'tough times': When being proactive is positively related to work attachment. *Journal of Occupational and Organizational Psychology, 91*(3), 569–590.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review, 26*(2), 179–201.

Wrzesniewski, A., LoBuglio, N., Dutton, J. E., & Berg, J. M. (2013). Job crafting and cultivating positive meaning and identity in work. In *Advances in positive organizational psychology* (Vol. 2, pp. 281–302). Emerald Group Publishing Limited.

Yigitcanlar, T., O'Connor, K., & Westerman, C. (2008). The making of knowledge cities: Melbourne's knowledge-based urban development experience. *Cities, 25*(2), 63–72.

Yin, R. K. (2009). *Case study research: Design and methods* (4 ed.). California: Sage Publications.

Zhang, X., Ryan, S. D., Prybutok, V. R., & Kappelman, L. (2012). Perceived obsolescence, organizational embeddedness, and turnover of it workers: An empirical study. *ACM SIGMIS - Data Base, 43*(4), 12–32. https://doi.org/10.1145/2398834.2398837