Sociotechnical Determinants' Effects on Person-job Fit and Life Satisfaction in Two Different Knowledge Work Contexts

Ilona Toth, Sanna Heinänen, Anna-Maija Nisula and Aino Kianto

LUT University, Lappeenranta/Lahti, Finland

Abstract: The purpose of this paper is to study the role of person-job fit as a mediator between perceived organizational support, organization engagement, as well as technology ease of use and general life satisfaction. New forms of organizing knowledge work may challenge conventional employee well-being theories; therefore, it is important to investigate aspects that affect knowledge workers' satisfaction with life. We built a theoretical model and used SEM with LISREL to test our hypotheses with a dataset ($N = 332$) composed of traditional knowledge workers ($n = 190$) and digital work platform experts ($n = 142$). Our results show that the relationship between person-job fit and life satisfaction is stronger for traditional knowledge workers, and that organization engagement is more important to traditional knowledge workers, while technology ease of use is more important for digital work platform experts. Our findings indicate that there are differences in the antecedents of person-job fit depending on the knowledge work context.

1 INTRODUCTION

The recent advent of positive psychology and sustainability discussions has marked the growth of interest in aspects of work that support individuals' life satisfaction. While life satisfaction is naturally of the utmost importance for humanistic reasons, it has also been demonstrated to yield positive impacts on many facets of work-life success (Lyubomirsky et al., 2005), such as job performance (Erdogan et al., 2012). Therefore, understanding the sources of life satisfaction is important from a managerial perspective.

It can be argued that for knowledge workers, the linkage between the work they conduct, and their general life satisfaction is especially prominent. For a knowledge worker, work is not only a source of income but also of personal meaning (Parker, 2002). The quality of work life (Hyde et al., 2003; Lee et al., 2013; Ryff, 2013), work-life balance (Van den Born & Van Witteloostuijn, 2013), possibility to develop one's expertise (Horwitz et al., 2003), and ownership of one's career (Arthur et al., 2017) tend to be especially important issues for knowledge workers, as they represent the degree to which an individual's universal psychological needs and life aspirations are satisfied (Deci & Ryan, 2008). When

work is more than a job that helps to pay the bills, individuals' personal satisfaction with it becomes crucial (Hall & Chandler, 2005).

In this paper, we address aspects of work life that may have a role in knowledge workers' life satisfaction. Specifically, we examine how person-job fit (i.e., the match between an employee and their job) impacts life satisfaction and how issues related to social and technological work determinants impact that perception of fit.

As knowledge work has become more common, with some estimating the number of such workers to exceed 1 billion today, knowledge workers are diverse in characteristics. In fact, knowledge workers should be seen as a heterogeneous group, given that not all knowledge-intensive tasks take place among people who are employed by an organization with permanent office locations ("traditional knowledge workers"). In the current age of the platform economy, an important novel category of knowledge workers has emerged that comprises freelancers, various contract-based project experts, and self-employed independent knowledge workers. We argue that for these "new" knowledge workers, the associations between work and life satisfaction may be different from that of more traditional knowledge workers (Van den Born & Van Witteloostuijn, 2013).

To examine these issues, the paper at hand applies a survey research strategy and analyzes survey data collected from 142 new and 190 traditional knowledge workers (N = 332). The results demonstrate not only that person-job fit mediates the impact of work determinants on life satisfaction but also that the type of knowledge work conducted moderates these relationships.

This paper is structured as follows. We begin by defining traditional and new knowledge work in chapter 2.1. We continue by introducing our research model and hypotheses development in chapter 2.2. The remaining sections of chapter 2 introduce our research concepts and their connections. In chapter 3 we describe our data and research methods. Chapter 4 contains the results of our statistical analysis, and chapter 5 draws conclusions based on these findings.

2 THEORETICAL BACKGROUND

2.1 Traditional and New Knowledge Work

Peter Drucker (1959, 2001), who coined the term *knowledge worker*, had already predicted decades ago that knowledge would be the key resource of our future work society and that the amount of knowledge workers would increase dramatically. While it might be difficult to clearly define knowledge-intensive work and workers, we understand knowledge workers as employees who continuously orchestrate and generate knowledge (Davenport & Cantrell, 2002) in their day-to-day work for better production and performance (Dul et al., 2011). Knowledge workers can be classified as possessing "a combination of subject-specific skills and knowledge, generic intellectual skills, generic process skills, competencies and personal attributes" (Atkins, 1999, p. 277). Knowledge work is about creating, searching, sharing, and applying knowledge (Davenport & Cantrell, 2002) for performance improvement. The growth of autonomy, demand for flexibility in work arrangements, and a desire for independent work challenges (Kelloway & Barling, 2000) differentiate knowledge work from conventional organizational employee work. Knowledge workers are changing the context of work in various ways. They master independent focused work, engage in co-operation and teamwork, employ working methods including learning and teaching others, and are interested in socialization, that is, creating and forming work-related relationships (Kubátová, 2014).

Knowledge work is currently undergoing several significant changes. The emergence of the platform economy (Caballer et al., 2005), an increasing amount of freelancing in highly complex expert work (Turner & Pennington, 2015), and various forms of temporary organizing (Aguinis & Lawal, 2013; Spinuzzi, 2012) are leading to a shift from steady traditional work relationships to increased heterogeneity in work relationships and related tasks (Sullivan et al., 2007). One of the new business trends enabled by digitalization is the platform economy—benefiting from a set of online digital arrangements in organizing and structuring economic and social activities. The platform economy necessitates radically changing the way we work, socialize, and create value (Kenney & Zysman, 2016). Platforms can mediate work in many ways, including transforming traditional work into tasks that can be performed by contractors or freelancers. The platform economy also enables different types of arrangements for modes of working, such as interdependent co-creation or autonomous distance work at opposite ends of the spectrum (Kenney & Zysman, 2016). Johnson et al. (2009) foresaw that computer-mediated technology would revolutionize the way in which employees would interact with each other in the future, introducing reliance on virtual teamwork. Today, many organizations are moving toward collaborative virtual platform work (Johns & Gratton, 2013).

Independent contractors, or freelancers, are a novel group of employees among knowledge workers. They cannot be considered entrepreneurs in the true sense of the word, as they often have a permanent relationship with an organization that employs them regularly (Van den Born & Van Witteloostuijn, 2013). Other independent contractors sell their expertise on a case-by-case basis or for a certain duration to an organization. This highly specialized group of knowledge work experts is clearly distinguishable from traditional, temporary, or seasonal workers whose efforts are in demand during high seasons or other special occasions, as highly specialized knowledge workers' preference for short-term contracting is often voluntary and they have continuously reported positive outcomes about job and career satisfaction (Van den Born & Van Witteloostuijn, 2013). They choose self-employment for various reasons, of which the most commonly mentioned are issues related to autonomy, flexibility, and work-life balance (Van

den Born & Van Witteloostuijn, 2013). Despite increased freedom and flexibility, freelancers seek social support in their work to reduce stress caused by work demands (García-Herrero, Mariscal, Gutiérrez, & Ritzel, 2013).

However, theoretical contributions concerning the effects of these platforms on work carried out by knowledge workers are still scarce (Kenney & Zysman, 2016). While few previous studies exist that address the various types of knowledge work, we argue that understanding the similarities and differences between the traditional and novel types of knowledge work would expand understanding of knowledge workers and significantly benefit management.

2.2 Research Model and Hypotheses

Life satisfaction, i.e., a person's quality of life based on chosen criteria, has many beneficial impacts on work life success. It has been demonstrated to be linked to a wide variety of issues, such as job performance (Erdogan et al., 2012), organizational citizenship behaviors (Crede et al., 2007), customer satisfaction (George, 1995), and creativity (Staw et al., 1994). Thus, we aim to examine the overall research question: What are the determinants of new and traditional knowledge workers' life satisfaction?

One of the most influential conceptual paradigms for understanding cognition and behavior in organizations is the interactionist theory (Rice et al., 1985). Its origins can be traced back to the 1930s in psychology, social psychology, and sociology. According to interactionist theory, to understand and predict behavior, both individual- and situation-related factors, as well as their interactions, should be considered (Chatman, 1989). The interactionist theory further emphasizes the importance of the fit between environmental demands and opportunities on the one hand and the relevant abilities and needs of a person on the other (Rice et al., 1985).

To build a research model describing how social and technological determinants in knowledge work lead to the experience of person-job fit and to general life satisfaction, we first lean on the interactionist theory (Figure 1). We specifically utilized the theory of Rice et al. (1985), which asserts that quality of life is influenced by organizational work (in addition to non-work-related issues). The influence of work environment and activities on overall quality of life is, however, mediated by personal perceptions concerning work life quality.

Second, drawing on self-determination theory (Deci & Ryan, 2008), we connect person-job fit with knowledge workers' life satisfaction. Based on self-determination theory, we propose that the conditions of work life, supporting versus thwarting, refer to the degree to which knowledge workers' needs and life aspirations are addressed (Deci & Ryan, 2008). The experienced person-job fit correlates with a high degree of satisfied needs and life aspirations and is likely to predict higher life satisfaction. Consequently, in this paper, we address aspects of work life that may play a role in knowledge workers' life satisfaction. Specifically, we examine how person-job fit (i.e., the match between an employee and their job) impacts life satisfaction and how issues related to social and technological work determinants impact that perception of fit.
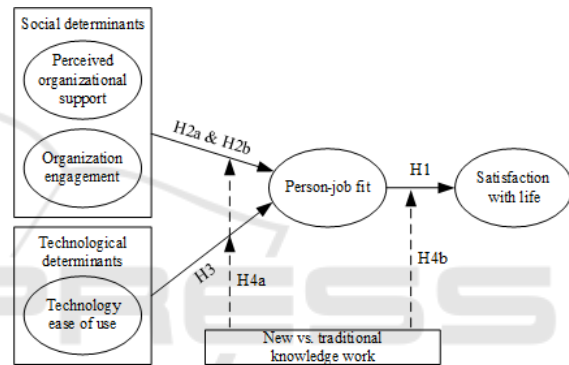

Figure 1: Research model.

In summary, we propose the following hypotheses.

1. Knowledge workers' life satisfaction is positively influenced by person-job fit.

Social determinants are assumed to have a positive influence on knowledge workers' life satisfaction through person-job fit. Thus, we hypothesize that:

2a. Perceived organizational support has a positive effect on person-job fit; and

2b. Organization engagement has a positive effect on person-job fit.

The technological determinants are also assumed to influence knowledge workers' life satisfaction through person-job fit. Therefore, we propose that:

3. Technology ease of use positively affects person-job fit.

The final hypotheses aim to explore the differences that occur when knowledge work is discussed in two different work contexts. We purport that:

4a. The relationships of social and technical determinants with person-job fit are different based on the nature of knowledge work; and

4b. The relationships between person-job fit and life satisfaction are different based on the nature of knowledge work.

In the following sections, we outline the main components in our research model and discuss their associations.

2.3 Person-job Fit and Knowledge Workers' Life Satisfaction

Work impacts the overall perception of quality of life through multiple pathways (Rice et al., 1985). We argue that for knowledge workers, person-job fit is an especially important antecedent of life satisfaction. This is because in knowledge work, self-determination plays an important role, that is, knowledge workers are motivated to satisfy their psychological needs (autonomy, competence, and relatedness) and personal life aspirations (Deci & Ryan, 2008) through their work roles. Knowledge workers' connection between their personal needs and life aspirations as well as work conditions indicates that personal needs are being addressed, and this is likely to lead to life satisfaction.

Life satisfaction is defined as "a global assessment of a person's quality of life according to his chosen criteria" (Shin & Johnson, 1978, p. 478), and it consists of hope and optimism (Bailey et al., 2007). The Satisfaction with Life Scale (SWLS) has been widely used around the world for measuring well-being and overall happiness in life (Diener et al., 1999). Despite the wide use of this scale, the management research domain has neglected to a great extent to account for the effect the work role has on the level of life satisfaction (Erdogan et al., 2012), while much research has been conducted on measuring job satisfaction and its consequences. In earlier research, engagement was shown to generate life satisfaction (Saks, 2019), and higher life satisfaction has been shown to facilitate positive work-related outcomes, such as job performance (Erdogan et al., 2012).

Person-job fit describes a match between personal abilities and job demands (Cable & Judge, 1996; Lauver & Kristof-Brown, 2001). Resick et al. (2007) defined job fit as the degree to which a person feels that their personality aligns with their current job's values. In addition to the fit between personal abilities and job demands, person-job fit also deals with employees' needs and preferences in the work tasks that they perform (Resick et al.,

2007). Furthermore, person-job fit is part of a larger framework of person-environment fit relationships. A meta-analysis conducted by Kristof-Brown et al. (2005) identified four types of person-environment fit relationships in work contexts: person-job fit, person-organization fit, person-group fit, and person-supervisor fit. Where person-organization fit emphasizes the compatibility between an employee and the organization, person-job fit focuses on the match between an employee and the attributes of their job. Research in social sciences and management has largely concentrated on person-job fit (Sekiguchi, 2004), and researchers who have studied it have suggested that it provides possibilities for individually meaningful work (Shuck et al., 2011) as well as trust and value congruence (Siebert et al., 2016). As person-job fit stems from the extent to which one's wants and capabilities are met by the job, it should have an important bearing on how satisfied one generally is with life conditions.

According to past research, person-job fit leads to job satisfaction in traditional work contexts (Latham & Pinder, 2005) and is also related to beneficial organizational results (Edwards, 2008; Tims & Bakker, 2010). Tims et al. (2016) recently connected person-job fit to meaningful work in a diary study. It can be argued that person-job fit becomes even more significant in the context of new work, in which knowledge workers operate between increasingly blurred organizational boundaries, and the focus on the work task's suitability to the individual is intensified.

2.4 Sociotechnical Determinants of Person-job Fit in the Knowledge Work Context

2.4.1 Perceived Organizational Support

Perceived organizational support (POS) refers to employees' experienced psychological safety. Psychological safety at work assumes that an employee is not afraid of negative consequences from expressing their true self at work (Kahn, 1990). Kahn (1990) argued that a certain amount of care and supportive management are needed for employees' psychological safety. In organizations, psychological safety is manifested through organizational and supervisor support. Kahn (1990) and May et al. (2004) found that a supportive supervisor relationship is positively associated with psychological safety. An important aspect of psychological safety is created by the care and

support employees perceive in the relationships between them and their superiors (May et al., 2004). A lack of support from superiors has been shown to ultimately result in employee burnout (Maslach et al., 2001).

Organizational support theory (Eisenberger et al., 1986) is a perspective that investigates how employees' performance can be enhanced through shared values and perceived support (Fee & Gray, 2020). POS "represents employees' beliefs about whether and how the organization is willing and able to provide them with the help they need to perform their work and manage stressful situations" (Fee & Gray, 2020, p. 3). POS advances in three stages. First, a reciprocity norm of felt obligation develops between employees and representatives of an organization. This is followed by a socioemotional need, which leads to an experience of worthiness and the creation of a social identity in the organization. In the end, employees become convinced that the organization recognizes and rewards accomplishments, which leads to increased performance (Rhoades & Eisenberger, 2002).

There are several structural features associated with POS, including role clarity, autonomy, right degree of challenges, and sufficient time and resources to accomplish allocated tasks. These need to be supported by other managerial HR processes, such as access to mentors and/or development opportunities (Allen & Rhoades Shanock, 2013). Additionally, POS has been connected to several positive outcomes, such as work engagement (Rich et al., 2010; Saks, 2006, 2019), organizational commitment, job involvement, and job satisfaction (Riggle et al., 2009). Fee and Gray (2020) argue that POS may also play an important role in temporary work relationships, which might extend to virtual platform work as well. Based on self-determination theory (Deci & Ryan, 2008), we propose that for knowledge workers, POS indicates the perceived degree to which knowledge workers' needs (autonomy, competence, and relatedness) and life aspirations are supported versus thwarted.

2.4.2 Organization Engagement

Organization engagement was originally seen as personal engagement with an organization. Saks (2006) made the distinction between organizational engagement and work engagement, with the first being an emotional and intellectual commitment to the organization and the latter the amount of discretionary effort exhibited by employees in their jobs. Many researchers use the term employee engagement when they talk about engagement directed towards the organization. Schaufeli and Salanova (2007) also included the relationship with the employee's professional or occupational role with his or her organization in their definition of employee engagement. Organization engagement is "the extent to which employees identify with their organization: its people, values, purpose, and culture. It is about the level of emotional connection employees feel toward their organization, the passion and enthusiasm they feel, and their motivation towards supporting the company's goals" (Hicks et al., 2014, p. 12). Strong organizational identification is a crucial element of this type of engagement, which makes employees interested in organizational well-being and more willing to strive towards common organizational benefit (Dutton et al., 1994). In fact, Farndale et al. (2014) found that organization engagement was a stronger predictor of affective commitment and job satisfaction than work engagement.

A distinguishing factor between organizational commitment and organization engagement is that organizational commitment is principally concerned with employees' relationships with their organizations and not with the actual work (Hicks et al., 2014), which is the first prerequisite for organization engagement to develop. Furthermore, organizational commitment seems to be more dependent on extrinsic motivational circumstances, while organization engagement is more inclined toward intrinsic motivation (Hallberg & Schaufeli, 2006). Additionally, organizational commitment reflects a need and an obligation to maintain membership in an organization (Meyer & Allen, 1991), thus referring to a person's attitude and attachment toward their organization instead of being directed to the employee's role as a member of an organization. It has also been argued that organizational commitment is a passive attitude, while engagement requires the active presence of employees (Yalabik et al., 2015). According to Shuck et al. (2012), there is clear evidence that at the structural and fundamental levels, organization engagement is empirically separable from organizational commitment, job satisfaction, and job involvement. Furthermore, Hallberg and Schaufeli (2006) have empirically shown that engagement, job involvement, and organizational commitment are distinct constructs. Based on self-determination theory (Deci & Ryan, 2008), we propose that the positive connection that knowledge workers experience through their role as members in an

organization or on a digital work platform acts as an important antecedent to person-job fit.

2.4.3 Importance of Technology Ease of Use in Knowledge Work

If knowledge work, especially applied to digital platforms, is considered in terms of shared economy, technology has the possibility to offer flexibility, matchmaking, extended reach, managed transactions, trust building, and facilitating collectivity (Sutherland & Jarrahi, 2018). Knowledge work is closely attached to the applicability of various information and communication tools in the digital environment. Research has indicated that digitalization can have either a positive or a negative impact on the performance of the knowledge work actions (Vuori et al., 2019). Technology acceptance has long been seen as a necessity for technology to be completely utilized with all its potential benefits (Davis et al., 1989; Lee et al., 2003; Wixom & Todd, 2005; Yi et al., 2006). Technology acceptance within various models has its roots in the technology acceptance model developed by Davis (1985). The model proposes that the basic background determinants are technology usefulness and ease of use. Both of these are perceived concepts of potential technology users and have been found to influence technology attitudes, behavioral intentions, and the actual usage of technology (see extensive meta-analysis by Yousafzai et al. [2007a, 2007b]). By definition (Davis, 1985), technology usefulness refers to the degree to which an individual believes that using a particular system would enhance their job performance, and perceived ease of use is the degree to which an individual believes that using a particular system would be free of physical and mental effort. As in the current field of knowledge work, digitalization can be seen as a necessity with various applications; thus, technology is present, and instead of its usefulness, the interest here is the extent to which workers perceive it to be easy to use. If the technology does not require much mental effort and is, in other words, a natural part of the work, it is assumed to influence the working habits and lead to better person-job fit.

3 SAMPLE AND DATA COLLECTION

The data were collected from September 2017 to March 2018 through an online questionnaire sent to experts listed at two digital work platforms whose headquarters are in Finland. The first platform organization is based on the idea of co-creation, where complex problem-solving tasks are assigned to temporary project teams brought together from members of a large expert community. The survey questionnaire was sent to all listed experts ($N = 1,830$), regardless of their activity with the platform, and the response rate was 12.0% ($n = 219$). The second platform organization offers autonomous expert services, where clients submit task requests online, and the organization assigns suitable freelancers from their community. The survey questionnaire was sent to all active experts on the platform ($N = 342$), and the response rate was 43.0% ($n = 147$). Comparison data were collected from September to October 2017 from members of a Finnish academic trade union ($N = 3,000$), and the response rate was 9.6% ($n = 289$).

3.1 Measures

We used valid measurement scales for measuring our concepts: perceived organizational support was measured with Saks' (2006) scale, consisting of eight items; organization engagement was measured with Saks' (2006) scale, consisting of six items; technology ease of use was measured with Venkatesh and Davis' (2000) scale, consisting of three items; person-job fit was measured with Kristof-Brown et al.'s (2005) scale, consisting of five items; and finally, life satisfaction was measured with Diener et al.'s (1985) scale, consisting of five items. A list of measurement items included in the analyses can be found in the Appendix.

3.2 Procedure

Structural equation modeling (SEM) was applied to analyze both the measurement model, i.e., the confirmatory factor analysis, and the structural model that tested the proposed hypotheses. The empirical analysis began with the analysis of the measurement model. To analyze the research model presented in Figure 1, the measurement model must be verified as equal across the groups. This is called measurement invariance and includes three steps—(1) configural invariance (the same items reflecting the latent concepts in both groups), (2) metric invariance (factor loadings fixed to be equal across the groups), and (3) factor variance invariance (Atienza et al., 2003; Steenkamp & Baumgartner, 1998)—that are required for testing the structural invariance (see Milfont & Fischer [2011]). LISREL

(version 8.80) was utilized for data analysis with maximum likelihood estimation.

4 RESULTS

4.1 Descriptive Statistics

Data concerning the experts contracted with the digital work platforms included 366 respondents, out of which 57.8% were male, and 42.2% were female. More than half the respondents (58.6%) were between 25 and 44 years old, 37.6% were Finnish, and 62.4% were of mixed nationalities. The comparison data from members of a Finnish academic trade union included 276 respondents who had a steady work relationship in traditional organizational settings (instead of classifying themselves as entrepreneurs or freelancers). Out of these 276, 70.5% were male, and 29.5% were female. Most of the respondents (61.0%) were between 25 and 44 years old. The comparison data consisted of Finnish citizens, apart from 10 participants who were of mixed nationalities. Due to missing values in the responses, the effective sample size was 332 responses: 142 digital work platform experts and 190 traditional knowledge workers (Table 1).

Table 1: Descriptive statistics for the respondents.

	Trad KW	New KW
N of respondents	190	142
Gender (%)		
Male	67.7%	56.3%
Female	32.3%	43.7%
Age (%)		
Under 25	0%	1.4%
25–34	15.3%	31.7%
35–44	30.0%	27.5%
45–54	31.1%	17.6%
55–64	23.2%	19.0%
Over 64	0.5%	2.8%
Education (%)		
Bachelor's or equivalent	1.6%	28.2%
Master's or equivalent	84.7%	52.1%
Doctoral or equivalent	11.1%	15.5%
Other, please specify	2.6%	1.4%
Vocational	0.0%	2.8%

4.2 Confirmatory Factor Analysis and Measurement Invariance

The measurement model was analyzed simultaneously for both groups. Configural invariance was the first step of the analysis, and

during this process, seven items were removed either because of low loading in one group or in both or based on the high correlation of error variances. The level of invariance and model fit values are shown in Table 2. After achieving configural invariance, the invariance on factor loadings was analyzed. In practice, this means that the model was no longer estimated freely for both groups; it was made to assume that the item loadings were equal across the groups. The Chi-square change was used as the major indicator of model fit and deterioration. The results indicated that metric invariance was not achieved. By taking a closer look at the indicators, it was observed that three items caused non-invariance. One was part of the perceived organizational support construct, the second item reflected person-job fit, and the final one was an indicator of life satisfaction. With these three indicators being freely estimated for both groups, the measurement model reached the level of partial metric invariance. The last step for verifying proper measurement concerned latent factor variances. The model was then estimated so that the factor variances were fixed equal across the groups, and the model estimation proposed that the measurement model achieved factor variance invariance and therefore met the necessary criteria for further progression toward the analysis of structural invariance.

Table 2: Measurement model fit values and invariance analysis.

Level of invariance	χ^2	$d\chi^2$ (ddf)	RMSEA
Configural invariance	151.32	-	0.028
Metric invariance	223.15	71.83 (9)*	0.058
Partial metric invariance	158.39	7.07 (6)**	0.028
Factor variance invariance	161.89	3.50 (5)	0.027

* significant model deterioration
** model compared to level of configural invariance

In addition to the invariance discussion, the measurement was also analyzed in terms of measurement reliability. Reliability was assessed with the help of construct reliability and the average variance extracted. These coefficients for both groups are presented in Table 3.

To conclude the measurement analysis, it can be said that the measurement model met the required level of reliability and validity for analyzing the research model with the groupwise average scores and standard deviations. Table 4 summarizes the descriptive information of the key constructs of the research model.

Table 3: Reliability indicators.

Latent construct	Construct reliability (average variance extracted)	
	Trad KW	New KW
Perceived organizational support	0.895 (0.745)	0.921 (0.795)
Organization engagement	0.831 (0.710)	0.784 (0.645)
Technology ease of use	0.889 (0.728)	0.914 (0.781)
Person-job fit	0.868 (0.702)	0.888 (0.727)
Life satisfaction	0.889 (0.728)	0.992 (0.801)

Table 4: Scale descriptive statistics.

Latent construct	Average (Standard deviation)	
	Trad KW	New KW
Perceived organizational support	3.94 (1.47)	4.13 (1.64)
Organization engagement	4.74 (1.39)	4.32 (1.44)
Technology ease of use	4.89 (1.33)	5.42 (1.30)
Person-job fit	5.33 (1.16)	5.54 (1.27)
Life satisfaction	4.99 (1.22)	5.32 (1.17)

4.3 Hypotheses Testing and Multi-Group Comparison

The multi-group approach was also applied for empirically testing the research model. In the beginning, the model was freely estimated for both groups. Table 5 represents the results of the modelling in terms of the standardized path coefficients (β) and their significance levels when all structural paths were freely estimated. All paths were significant, as hypothesized, except the effect of POS on person-job fit. Organization engagement and technology ease of use both have a positive relationship with person-job fit. Furthermore, the path from person-job fit to life satisfaction was significant, indicating that the level of person-job fit has a positive influence on life satisfaction. Considering the overall model, the R-squared for person-job fit as a dependent was high (.503), and for life satisfaction, it was low (.073), as there was only one explanatory variable.

A multi-group approach was applied for testing the moderating effect of work context, testing whether the path coefficients were equal across the groups. In practice, this is performed by running the model several times, where each time, one of the paths is forced to be equal across the groups. The Chi-square difference was used as an indicator of the significance of the difference, and the reference was always the baseline model in which the paths were freely estimated for both categories. Table 6 presents the results of the multi-group comparison.

Table 5: Results of the baseline model.

	Trad. KW		New KW	
	β	P	β	p
H1: Pjf -> Lifesat [1]	0,645	***	0,241	**
H2a: Support -> Pjf [2]	0,040	ns	0,131	ns
H2b: Oeng -> Pjf	0,595	***	0,326	***
H3: Tame -> Pjf	0,231	**	0,478	***

*** p < .001
** p <. 010
* p <.050
ns = not significant
[1] model R-squared for Lifesat = .073
[2] model R-squared for Pjf = .503

Table 6: Results of the multi-group analysis.

	Multi-group comparison[1]	
	dχ2 (ddf=1)	RMSEA
H4a: Support -> Pjf	3,21ns	0,035
H4a: Oeng -> Pjf	6,95*	0,037
H4a: Tame -> Pjf	5,56*	0,037
H4b: Pjf -> Lifesat	14,35*	0,041

* p <.050
ns = not significant
[1] Reference is the freely estimated base model
χ^2=179,91 (df=151) RMSEA = 0.034

There were four paths analyzed this way, and based on the results, three paths were found to differ across the groups. No statistical difference was found in the relationship between perceived organizational support and person-job fit. Organization engagement had a different influence on person-job fit; for traditional knowledge workers, the path coefficient was significantly higher than for the individuals in the new type of knowledge work. Technology ease of use had a higher influence on person-job fit among the new type of knowledge work. Finally, the path from person-job fit to life satisfaction was also different between the groups as the path coefficient was significantly higher for traditional knowledge work.

5 CONCLUSIONS

In response to a growing interest in the changing context of knowledge work and the increase of alternative work arrangements (Spreitzer et al., 2017), this paper examined the role of social and technological determinants in the development of both the experience of person-job fit and general life satisfaction in contemporary knowledge work. The paper contributes to the literature by deepening the understanding of knowledge workers from an

interactionist perspective. The research model integrated personal perceptions of job fit with social and technological work determinants to explain knowledge workers' life satisfaction. Further, the paper differentiated between two distinct types of knowledge workers: those who use knowledge for higher productivity and performance (Davenport & Cantrell, 2002; Dul et al., 2011) as independent contractors and those who are employees in organizations. Especially in digital work platforms, dedicated and reliable contractors are the most important asset when platform providers build their competitive advantage; hence, understanding this novel type of knowledge workers and what motivates them is essential.

Our findings are novel for the following reasons. First, previous studies have investigated the direct relationship between person-job fit and job satisfaction (Latham & Pinder, 2005) and other positive organizational results (Tims & Bakker, 2010), but they have neglected to study employees' overall life satisfaction as a resulting condition. Second, while person-job fit has been studied as a mediator between job crafting and job engagement (Chen et al., 2014), Christian et al. (2011) have suggested that engaged workers may develop a stronger sense of fit in the job or in the environment. Moreover, no previous studies have examined the mediating role of person-job fit on general life satisfaction. Our study bridged this gap by showing the positive connection between organization engagement and person-job fit, which extends further to life satisfaction, especially in the traditional knowledge work context.

As expected, the role of technology ease of use had a stronger impact on person-job fit in the digital work platform context than on traditional knowledge workers. This sends a clear message to the digital platform providers to pay attention to the usability of their platform functions and to make sure that people who are using their platform are given enough support and guidance about how to use the platform.

As with all studies, this study had some limitations. Christian et al. (2011) suggested the possibility of reciprocal relations between engagement and fit perceptions. However, our study was cross-sectional in nature, so we could only show the positive relationships between our constructs and suggest that further longitudinal studies are needed to judge their causality. We also need to consider the possibility that our measurements, which were based on self-evaluations, may have been affected by common method bias (Chang et al., 2010). Further

longitudinal studies could decrease these concerns as well.

ACKNOWLEDGEMENTS

REFERENCES

Aguinis, H., & Lawal, S. O. (2013). ELancing: A review and research agenda for bridging the science-practice gap. *Human Resource Management Review*, *23*(1), 6–17.

Allen, D. G., & Rhoades Shanock, L. (2013). Perceived organizational support and embeddedness as key mechanisms connecting socialization tactics to commitment and turnover among new employees. *Journal of Organizational Behavior*, *34*, 350–369.

Arthur, M. B., Khapova, S. N., & Richardson, J. (2017). *An Intelligent Career: Taking ownership of your work and your life*. Oxford University Press.

Atienza, F. L., Balaguer, I., & Garcıá-Merita, M. L. (2003). Satisfaction with Life Scale: Analysis of factorial invariance across sexes. *Personality and Individual Differences*, *35*, 1255–1260.

Atkins, M. J. (1999). Oven-ready and self-basting: Taking stock of employability skills. *Teaching in Higher Education*, *4*(2), 267–280.

Bailey, T. C., Eng, W., Frisch, M. B., & Snyder, C. R. (2007). Hope and optimism as related to life satisfaction. *Journal of Positive Psychology*, *2*(3), 168–175.

Caballer, A., Gracia, F., & Peiró, J. M. (2005). Affective responses to work process and outcomes in virtual teams: Effects of communication media and time pressure. *Journal of Managerial Psychology*, *20*(3–4), 245–260.

Cable, D., & Judge, T. (1996). Person-organization fit, job choice, and organization entry. *Organizational Behavior and Human Decision Processes*, *67*(3), 204–213.

Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, *41*(2), 178–184.

Chatman, J. A. (1989). Improving interactional organizational research: A model of person-organization fit. *Academy of Management Review*, *14*(3), 333–349.

Chen, C. Y., Yen, C. H., & Tsai, F. C. (2014). Job crafting and job engagement: The mediating role of person-job fit. *International Journal of Hospitality Management*, *37*, 21–28.

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: a quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, *64*, 89–136.

Crede, M., Chernyshenko, O. S., Stark, S., Dalal, R. S., & Bashshur, M. (2007). Job satisfaction as mediator: An assessment of job satisfaction's position within the nomological network. *Journal of Occupational and Organizational Psychology*, *80*(3), 515–538.

Davenport, T. H., & Cantrell, S. (2002). The art of work: Facilitating the effectiveness of high-end knowledge workers. *Outlook Journal*. http://www.accenture.com/xd/xd.asp

Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results. *Sloan School of Management*. Massachusetts Institute of Technology.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982–1003.

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, *49*(3), 182–185.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*(1), 71–75.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302.

Drucker, P. (1959). Long-range planning: Challenge to management science. *Management Science*, *5*(3), 238–249.

Drucker, P. (2001). The next society. *Economist*, (November 1).

Dul, J., Ceylan, C., & Jaspers, F. (2011). Knowledge workers' creativity and the role of the physical work environment. *Human Resource Management*, *50*(6), 715–734.

Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational images and member identification. *Administrative Science Quarterly*, *39*(2), 239–263.

Edwards, J. R. (2008). Person-environment fit in organizations: An assessment of theoretical progress. *The Academy of Management Annals*, *2*(1), 167–230.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, *71*(3), 500–507.

Erdogan, B., Bauer, T. N., Truxillo, D. M., & Mansfield, L. R. (2012). Whistle while you work: A review of the life satisfaction literature. *Journal of Management*, *38*(4), 1038–1083.

Farndale, E., Beijer, S. E., Van Veldhoven, M. J. P. M., Kelliher, C., & Hope-Hailey, V. (2014). Work and organization engagement: aligning research and practice. *Journal of Organizational Effectiveness*, *1*(2), 157–176.

Fee, A., & Gray, S. J. (2020). Perceived organisational support and performance: The case of expatriate development volunteers in complex multi-stakeholder employment relationships. *International Journal of Human Resource Management*. https://doi.org/10.1080/09585192.2020.1745864

García-Herrero, S., Mariscal, M. A., Gutiérrez, J. M., & Ritzel, D. O. (2013). Using Bayesian networks to analyze occupational stress caused by work demands: Preventing stress through social support. *Accident Analysis and Prevention*, *57*, 114–123.

George, J. M. (1995). Leader positive mood and group performance: The case of customer service. *Journal of Applied Social Psychology*, *25*(9), 778–794.

Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior*, *26*(2), 155–176.

Hallberg, U. E., & Schaufeli, W. B. (2006). "Same Same" But Different? *European Psychologist*, *11*(2), 119–127.

Hicks, R. E., O'Reilly, G., & Bahr, M. (2014). Organisational engagement and its driving forces: A case study in a retail travel organization with international outreach. *International Journal of Management Cases*, *16*(3), 4–19.

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.

Hyde, M., Wiggins, R. D., Higgs, P., & Blane, D. B. (2003). A measure of quality of life in early old age: The theory, development and properties of a needs satisfaction model (CASP-19). *Aging and Mental Health*, *7*(3), 186–194.

Johns, T., & Gratton, L. (2013). The third wave of virtual work. *Harvard Business Review*, *91*(1–2).

Johnson, S. K., Bettenhausen, K., & Gibbons, E. (2009). Realities of working in virtual teams: Affective and attitudinal outcomes of using computer-mediated communication. *Small Group Research*, *40*(6), 623–649.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692–724.

Kelloway, E. K., & Barling, J. (2000). Knowledge work as organizational behavior. *International Journal of Management Reviews*, *2*(3), 287–304.

Kenney, M., & Zysman, J. (2016). The rise of the platform economy. *Issues in Science and Technology*, *32*(3), 61–69.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor FIT. *Personnel Psychology*, *58*(2), 281–342.

Kubátová, J. (2014). The cause and impact of the development of coworking in the current knowledge economy. *Proceedings of the European Conference on Knowledge Management, ECKM*, *2*, 571–577.

Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first

century. *Annual Review of Psychology*, *56*(1), 485–516.

Lauver, K. J., & Kristof-Brown, A. (2001). Distinguishing between employees' perceptions of person-job and person-organization fit. *Journal of Vocational Behavior*, *59*(3), 454–470.

Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, *12*(Article 50), 752–780.

Lee, Y. W., Dai, Y. T., Park, C. G., & McCreary, L. L. (2013). Predicting quality of work life on nurses' intention to leave. *Journal of Nursing Scholarship*, *45*(2), 160–168.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803–855.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397–422.

May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, *77*, 11–37.

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

Milfont, T. L., & Fischer, R. (2011). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological Research*, *3*(1), 111–121.

Parker, P. (2002). Creativity in contract workers' careers. In M. Peiperl, M. Arthur, & N. Anand (Eds.), *Career Creativity Explorations in the Remaking of Work* (pp. 123–141). Oxford University Press.

Resick, C. J., Baltes, B. B., & Shantz, C. W. (2007). Person-organization fit and work-related attitudes and decisions: Examining interactive effects with job fit and conscientiousness. *Journal of Applied Psychology*, *92*(5), 1446–1455.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, *87*(4), 698–714.

Rice, R. W., McFarlin, D. B., Hunt, R. G., & Near, J. P. (1985). Organizational work and the perceived quality of life: Toward a conceptual model. *Academy of Management Review*, *10*(2), 296–310.

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*(3), 617–635.

Riggle, R. J., Edmondson, D. R., & Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research*, *62*(10), 1027–1030.

Ryff, C. D. (2013). Eudaimonic well-being and health: Mapping consequences of self-realization. In A. S. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonia* (pp. 77–98). American Psychological Association.

Saks, A. M. (2019). Antecedents and consequences of employee engagement revisited. *Journal of Organizational Effectiveness*, *6*(1), 19–38.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, *21*(7), 600–619.

Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress and Coping*, *20*(2), 177–196.

Sekiguchi, T. (2004). Person-organization fit and person-job fit in employee selection: A review of the literature. *Osaka Keidai Ronshu*, *54*(6), 179–196.

Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, *5*(1–4), 475–492.

Shuck, B., Ghosh, R., Zigarmi, D., & Nimon, K. (2012). The jingle jangle of employee engagement. *Human Resource Development Review*, *12*(1), 11–35.

Shuck, B., Reio, T. G., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International*, *14*(4), 427–445.

Siebert, S., Martin, G., & Bozic, B. (2016). Research into employee trust: epistemological foundations and paradigmatic boundaries. *Human Resource Management Journal*, *26*(3), 269–284.

Spinuzzi, C. (2012). Working alone together: Coworking as emergent collaborative activity. *Journal of Business and Technical Communication*, *26*(4), 399–441.

Spreitzer, G. M., Cameron, L., & Garrett, L. (2017). Alternative work arrangements: Two images of the new world of work. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*(1), 473–499.

Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee positive emotion and favorable outcomes at the workplace. *Organization Science*, *5*(1), 51–71.

Steenkamp, J.-B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, *25*(1), 78–90.

Sullivan, S., Forret, M., Mainiero, L., & Terjesen, S. (2007). What motivates entrepreneurs? An exploratory study of the kaleidoscope career model and entrepreneurship. *Journal of Applied Management and Entrepreneurship*, *12*(4), 4.

Sutherland, W., & Jarrahi, M. H. (2018). The sharing economy and digital platforms: A review and research agenda. *International Journal of Information Management*, *43*(February), 328–341.

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., 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.

Turner, T., & Pennington, W. W. (2015). Organizational networks and the process of corporate entrepreneurship: How the motivation, opportunity, and ability to act affect firm knowledge, learning, and innovation. *Small Business Economics*, *45*(2), 447–463.

Van den Born, A., & Van Witteloostuijn, A. (2013). Drivers of freelance career success. *Journal of Organizational Behavior*, *34*, 24–46.

Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204.

Vuori, V., Helander, N., & Okkonen, J. (2019). Digitalization in knowledge work: The dream of enhanced performance. *Cognition, Technology and Work*, *21*(2), 237–252.

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information Systems Research*, *16*(1), 85–102.

Yalabik, Z. Y., van Rossenberg, Y., Kinnie, N., & Swart, J. (2015). Engaged and committed? The relationship between work engagement and commitment in professional service firms. *International Journal of Human Resource Management*, *26*(12), 1602–1621.

Yi, M. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management*, *43*(3), 350–363.

Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2007a). Technology acceptance: a meta-analysis of the TAM: Part 1. *Journal of Modelling in Management*, *2*(3), 251–280.

Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2007b). Technology acceptance: a meta-analysis of the TAM: Part 2. *Journal of Modelling in Management*, *2*(3), 281–304.

APPENDIX

The final set of items included in the analysis:

Perceived Organizational Support
- My organization really cares about my well-being.
- My organization strongly considers my goals and values.
- My organization cares about my opinions.

Organization Engagement
- Being a member of my work organization is very captivating.
- I am highly engaged in my work organization.

Technology Ease of Use
- My interaction with digital work tools is clear and understandable.
- Interacting with digital work tools does not require a lot of my mental effort.
- I find digital work tools to be easy to use.

Person-job Fit
- To what extent - do your knowledge, skills and abilities match the requirements of your work?
- To what extent - does your work fit with your expectations?
- To what extent - does your work suit you?

Satisfaction with Life
- In most ways my life is close to my ideal.
- The conditions of my life are excellent.
- I am satisfied with my life.