

Job training satisfaction and knowledge sharing in IT company: a case study

Job training
satisfaction

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Abstract

Purpose – This research aims to understand whether and how the perceptions that employees build and share over time about training activities and opportunities at work are linked to the knowledge management processes within the organization. This study aims at measuring how different levels of job training satisfaction are linked to employee perceptions of knowledge-sharing (KS) practices at work.

Design/methodology/approach – A total of 179 employees from an information and technology firm in Italy took part in the study, by completing questionnaires on job training satisfaction, KS practices and job-related variables (i.e. years of experience, hours of training in the previous year, job role and organizational area of belonging).

Findings – Findings showed that high job training satisfaction is related to positive perceptions of KS practices, so that when employees are satisfied with their job training experiences, they are more likely to value and recognize those practices.

Research limitations/implications – The relation between job training satisfaction and KS practices needs to be extended to different sectors and organizations to be generalized.

Social implications – Training activities within the organization are at the core of knowledge management practices and constitute a main source of sustainable competitive advantage; human resource management should reconsider the importance of monitoring training perceptions inside the organization, to become more conscious of the value and impact of these practices, in particular about training strategies.

Originality/value – Although great attention has been given to single-training satisfaction, only few studies consider the wider impact of job training satisfaction and its possible impact on knowledge sharing.

Keywords Job training satisfaction, Knowledge-sharing practices, IT company, Knowledge management

Paper type Case study

Introduction

Organizational knowledge has a strategic role in promoting performance, innovation and effectiveness in firms (Ahmad and Karim, 2019). At the same time, knowledge itself cannot

generate such outcomes: it requires to be shared and applied (Benevene and Cortini, 2010; Buonomo *et al.*, 2020a; Hislop, 2005; Rezaei *et al.*, 2016). Nonaka and Takeuchi (1995) were the first authors systematizing the role of individuals in taking part to the knowledge creation process. In their model, knowledge creation is the process that allows individual knowledge to be amplified and internalized within the organizational knowledge base. Thus, according to the authors, individual interactions at various levels within the organization and the shared knowledge that derives from them allow the knowledge to have an impact on organizational effectiveness (Ipe, 2003).

Knowledge sharing (KS) is defined as:

The exchange of employee knowledge, experiences, and skills through the whole department or organization. KS comprises a set of shared understandings related to providing employees access to relevant information and building and using knowledge networks within organizations (Lin, 2007, p. 315).

KS allows each member to develop and learn by collecting information, experiences and learning (Bock and Kim, 2002; Lichtenthaler and Ernst, 2006). KS processes support individual development and even the organization as a whole. By sharing knowledge, capabilities and information with employees, the organization transfers resources and assets among its members. This process, in turn, cultivates the onset and the preservation of individual tacit knowledge within the organization (Wang and Noe, 2010).

Overall, KS practices include informal processes (e.g. daily communications) and formal conditions and procedures that allow for an enrichment of the knowledge within the organization (e.g. formal development and training initiatives).

During these processes, several dimensions may intervene in the knowledge flows, whether related to individual or organizational dimensions. More specifically, Wang and Noe (2010) reported five main categories of KS determinants: organizational context, interpersonal and team characteristics, cultural characteristics, individual characteristics and motivational factors. Organizational context includes, for example, organizational support, structure and climate, and leadership styles (Disterer, 2001; Kim and Park, 2020); interpersonal and team characteristics include team processes and development stage and diversity (Cumings, 2004); cultural characteristics include collectivism and in-group/out-group dynamics (Hwang and Kim, 2007); individual characteristics include work experiences, education, personality, personal beliefs (Barson *et al.*, 2000; Disterer, 2001; Mooradian *et al.*, 2006); and motivational factors include beliefs about organizational justice, benefits and costs of KS practices, individual and team-level trust, leader-member exchange processes (Sarti, 2018).

The mentioned dynamics and determinants have been particularly relevant during the last two years, with the onset of the COVID-19 pandemic. The crisis due to the pandemic forced organizations to change their assets and premises, moving toward a more sustained telework, thus required them to lean on technology-mediated communication and remote working, and, thus, challenged established communication and management strategies (Ozkan *et al.*, 2022). Despite a few studies assessing KS during the COVID-19 (Lee *et al.*, 2020; Lin and Hwang, 2021; Montani and Stagliano, 2022), such major changes are likely to have impacted KS practices within organizations. It is likely, indeed, that the changes in work arrangements led to a higher use of formalized, structured and techno-mediated forms of KS, at the expenses of informal, face-to-face strategies. Formal KS practices, indeed, “include training programs, structured work teams, and technology based systems” (Ipe, 2003, p. 349), while informal practices are considered by some authors as relational learning channels (Rulke and Zaheer, 2001; Cortini, 2016). Thus, overall, KS practices relied mainly on formalized strategies and shared online training activities. Furthermore, in the last two years, and above all at the onset of the COVID-19 outbreak, employees’ beliefs about personal skills, work experiences and organizational

support had a crucial role in fostering their ability to adapt to the crisis (Capone *et al.*, 2022; Luu, 2021; Qin and Men, 2022). Thus, it is likely that such beliefs and attitudes played a significant role in predicting the level and quality of interactions, communications, and, more generally, KS practices during the lockdown.

Building on these findings, this paper will focus on the role of employee perceptions in the KS process. More specifically, the paper addresses a particular type of satisfaction at work, namely, job training satisfaction, and values its effects on the perception of KS practices, in a sample of employees working in an information and technology (IT) firm during the COVID-19 pandemic, considering the unprecedented boundaries to KS practices that this event posed to the organization.

Knowledge-sharing practices in information and technology companies

Working in IT companies, especially for employees with technical job roles, requires the involvement in collaborative practices and knowledge-intensive processes, because of the need to coordinate the development of IT solutions in multidisciplinary teams (Ghobadi, 2015; Kannan and Akhilesh, 2002; Kidd, 2004) and the recursiveness of software and other technological products development procedures (Chou and He, 2011; Ghobadi and D'Ambra, 2012). Thus, in other words, KS practices are crucial to the effectiveness of these organizations. When addressing the determinants of KS practices in IT employees (with a specific regard to employees involved in software development tasks), Ghobadi (2015) individuated several categories that may roughly overlap with Wang and Noe (2010). More specifically, the authors reported people- and structure-related drivers for KS processes, for a total of 37 antecedents emerging from literature on KS in software development companies. People-related drivers included employee personal features, skills and experiences and team perceptions; structure-related drivers included strategic management choices at the team and the organization level, organizational norms about interactions and communications, project management procedures and technology-related technical aspects. As stated above, such dimensions remained crucial during the COVID-19 outbreak.

Employee beliefs toward the organization and perceptions of KS practices

Overall, research on the determinants of KS practices inform about the importance of employee beliefs for the effectiveness of the sharing process.

More specifically, the better the beliefs and attitudes toward the knowledge management initiatives, the better the outcomes of such processes (Disterer, 2001; Riege, 2005). Among such perceptions, job satisfaction seems to play a primary role in predicting the outcomes of KS practices at work (Becerra-Fernandez and Sabherwal, 2014; Braun and Avital, 2007; Jacobs and Roodt, 2007; Rafique and Mahmood, 2018; Teh and Sun, 2012; De Vries *et al.*, 2006). Some studies, indeed, showed that when employees are satisfied with their job, they attribute a higher value to the KS processes and practices implemented at work, show higher willingness to take part in it by sharing their information and competencies and feel higher enthusiasm for the process (De Vries *et al.*, 2006; Kianto *et al.*, 2016; Saeed, 2016). At the same time, the concept of job satisfaction is related to multiple experiences, conditions and perceptions. Consistently with the person–environment fit paradigm (Ellickson, 2002; Kristof, 1996), employees may feel satisfied for specific dimensions of the work experience, but not others, and still perceive themselves as satisfied or unsatisfied, depending, for example, on personal values, dispositions and personality traits or on the weight of the specific factor in comparison with the others (Agho *et al.*, 1993; Locke, 1976). Thus, because training activities usually can be seen as formalized procedures to develop and promote shared knowledge, this work will specifically address the role of satisfaction for job training experiences.

The role of job training satisfaction

Schmidt (2007) defines job training satisfaction as “the extent to which people like or dislike the set of planned activities organized to develop the knowledge, skills, and attitudes” (p. 438) required to perform a given task or job effectively. The author underlines that the definition of job training satisfaction encompasses at least three key components. First, the employee evaluating his/her satisfaction for job training evaluates the training as a whole rather than a single training activity, content or opportunity. Second, that employee will show positive emotional states regarding the whole training experience, referring to how the training is usually conceived, planned and delivered at work, but even considering elements before and after the training experiences. Such elements include, for example, how much the training fulfills the employee’s professional needs or whether the new knowledge can be transferred to daily job tasks and challenges. Third, employees are commonly asked to evaluate formal, planned training experiences, such as courses and other formal development opportunities. Overall, thus, measures of training satisfaction capture not only the employees’ feelings about the training experience itself but also how they perceive the organizational offer of training and development opportunities. In addition, several studies showed that being satisfied with job training allows for the onset of other positive attitudes at work, such as the willingness to take part in the training itself (Schmidt, 2007), the intention to stay in the organization (Huang and Su, 2016), the organizational commitment and involvement (Mansour *et al.*, 2017) and the willingness to show organizational citizenship behaviors (Huang, 2020). At the same time, to authors’ best knowledge, there are no studies addressing the link between training satisfaction and KS perception. Nevertheless, current literature on job training satisfaction suggests that when employees are satisfied with the training and development opportunities provided by their organization, they tend to have a positive perception of their relationship with the organization. Considering the crucial role of the individual–organization exchange that establishes the KS processes (Wang and Noe, 2010), we may hypothesize that feeling satisfied for job training may be linked to the way employees perceive the KS process as a whole.

Building on the consideration of the potential role of job training satisfaction for KS practices, we chose to explore these topics in an Italian IT firm, by answering two questions:

- Q1. Is it possible to classify employees based on their job training satisfaction?
- Q2. If the clusters differ for their job training satisfaction, how does this correlate with employee beliefs on KS practices?

Methods*Procedures and participants*

After a wide analysis of the different tools available in the literature, the authors’ orientation turned to the construction of an *ad hoc* questionnaire, mainly due to the organization’s need to use short scales, which could be easily administered to the whole company.

Analyzed tools included the Learning Transfer System Inventory (LTSI; Holton *et al.*, 2000), the Knowledge Skills and Attitudes model (KSA; Kraiger *et al.*, 1993) and the Dynamic Training Model (DTM; Blume *et al.*, 2019). The LTSI is a self-report inventory designed to assess individual perceptions of catalysts and barriers to the transfer of learning from work-related training (Bates *et al.*, 2012). It measures, with over 90 items, 16 factors, 11 of which related to a specific training activity pursued at work. The KSA is a model that guides the assessment of learning outcomes related to specific training opportunities, thus measuring the transfer of learning. As shown by Yang *et al.* (2020) in a multiple-case study, this model requires several data gathering methods (e.g. observation, journal entries,

documents, semistructured interviews). Finally, the DTM, strongly linked to the KSA approach, is more related to individuals' attempts to transfer trained skills to the job, the evaluation of the transfer process and the subsequent feedback for future actions. The measures and instruments deriving from the analyzed approaches did not fit the needs and context in which the assessment tool place. First, most of the tools referred to single training experiences, with regard to specific learning objectives and outcomes (most part of the LTSI, KSA and DTM). Second, the COVID-19-related remote working arrangement did not allow using more complex tools (KSA and DTM). Finally, some of these tools required an *ad hoc* training to be used or were not available in Italian (LTSI).

For these reasons, the construction of the tools moved from the literature analysis to a qualitative step with a cycle of in-depth interviews to 11 employees, including managers, team leaders, IT workers and administrative staff.

The contents of the interviews allowed for the individuation of the main themes which were then transposed in items. The questionnaire was pretested and discussed with the interviewees, the HR employees, before to reach the final version.

The final version of the tool is composed by two scales: KS practices and job training satisfaction.

KS practices were measured with nine items tackling three main themes: perceived frequency of KS practices at work, importance personally attributed to sharing one's knowledge with coworkers and beliefs regarding the need to formalize KS processes within the organization. Each item was measured on a five-point Likert scale, ranging from 1 = Totally disagree to 5 = Totally agree. The overall scale showed good internal reliability (Cronbach's alpha = 0.78).

Job training satisfaction was measured with 14 items, tackling three main themes: perceived importance of training for one's job, satisfaction with the organizational training activities and support perceived at work in acquiring and using new skills. Each item was measured on a five-point Likert scale, ranging from 1 = Totally disagree to 5 = Totally agree. The overall scale showed good internal reliability (Cronbach's alpha = 0.76).

Finally, data about job role (employee/team leader/manager), organizational area (technic/administrative), number of years spent within the organization (up to 10/more than 10) and hours of job training during the previous year (no training/1–10/11–20/20–30/30–40/40–50/more than 50) were gathered.

The questionnaire was administered through a Google Form to the whole company and a kind reminder was sent after two weeks.

A total of 179 employees from Insiel SpA, an IT firm based in the North East of Italy, completed an online questionnaire using the Google Form tool, between July and October 2020. About 20% of the sample were team leaders or managers. Less than 10% of the sample covered administrative roles, while most of the participants had technical job roles. Nearly 85% of the sample had worked at the firm for at least 10 years. Finally, about 50% of the participants received 1–20 hours of training, 45% received 20 to over 50 hours of training and 5% did not receive any training in the year preceding the study.

Analyses plan

A TwoStep Cluster analysis (SPSS, v. 23) was performed to differentiate between two or more groups of employees according to their job training satisfaction (*Q1*). Clustering methods allow for the individuation of groups of individuals matched for the similarity in their response pattern to variables chosen by the researcher. Differently from regressive methods, in which the main objective is to predict the value of a dependent variable, clustering allows for the individuation of data patterns. Considering that the questionnaire used to measure job training

satisfaction was constructed by the authors, clustering allowed for a punctual individuation of the relative importance of each item related to job satisfaction, for each emerged cluster.

More specifically, the chosen clustering method encompasses two steps. First, preclusters of densely packed records are formed by merging cases with identical or very similar patterns of responding to the variables of interest. This step aims at reducing the number of records that will be compared in the formal clustering phase. Second, a standard agglomerative hierarchical clustering method is implemented to group the preclusters into distinct clusters. More specifically, each precluster is merged with the two closest preclusters to create a single cluster. Subsequently, this cluster is merged with the following two closest preclusters to create a larger cluster, and so on, until all preclusters are merged into one cluster (that includes all the participants). The program then calculates Bayesian Information Criterion (BIC) values for all the produced cluster solutions to identify how well each successive cluster solution includes distinctive clusters. Finally, it automatically calculates the optimal cluster number based on the point where an additional cluster does not improve the BIC value appreciably. At this point, a quality score is provided, depending on cluster cohesion and separation: this score ranges from -1 (insufficient quality) to 1 (optimal quality). Once the optimal solution is defined, the procedure identifies how much each variable contributed to the clustering, scoring from 0 (no contribution) to 1 (total contribution). The main benefit of the TwoStep method is that it manages large data sets more effectively than traditional methods (namely, k-means and expectation-maximization) (SPSS Inc., 2001). In this study, the variables inserted in the TwoStep cluster analysis included: items from the job training satisfaction measure (continuous), job role (categorical), number of years within the organization (categorical), hours of training pursued during the previous year (categorical) and organizational area (categorical). This strategy of clustering does not require the researcher to impose a hierarchical order to the input of the variables and allows the model to provide as many clusters as needed to reveal the clusters within the data.

To verify whether emerging clusters showed different profiles, *t*-tests (for continuous variables) and Chi-squared tests (for categorical variables) were run. In addition, *t*-tests were used to answer Q2 (i.e. verifying whether job training satisfaction is linked to employee perceptions of KS practices).

The combination of TwoStep cluster analysis and tests to compare independent samples was already used in the literature across different fields, such as management (Huang and Han, 2008), education (Brown *et al.*, 2015) and psychology (Francisco, 2012).

Results

TwoStep cluster analysis

Two clusters of employees, including 113 and 66 participants, emerged from the TwoStep cluster analysis. This clustering option had a sufficient quality level (quality score = 0.4). Among the variables considered in the clustering procedure, items related to job training satisfaction scored higher in terms of relevance for the clustering formation. More specifically, the items showing a degree of relevance above the mean score (0.5) were: “The courses I participate in during the year meet my needs” (Item 14, importance score = 1); “The training plan is adequately managed by my organization” (Item 13, importance score = 0.95); “The organization provides me with the tools to apply the skills I learned” (Item 10, importance score = 0.64); “It is clear to me the entire formative process and who involves” (Item 15, importance score = 0.58). Among other variables, the job role is the predictor with higher relevance for the clustering procedure, despite being highly below the mean (importance score = 0.26).

Consistent with these scores, Table 1 shows how the two groups of participants differ for the job training satisfaction scores (section a, *t*-tests) and the job-related variables (section b, Chi-squared tests). Regarding job training satisfaction, the participants differ for all the items (except for “If I could, I’d do even more training than I already do,” Item 3), so that participants in Cluster 2 show higher levels of job training satisfaction than participants in Cluster 1. About job-related variables, the standardized residues of the Chi-squared analyses showed that Cluster 1 is characterized by employees engaged in a high number of training hours (more than 40) in the year preceding the study. Cluster 2 is characterized by the absence of team leaders and the presence of only one manager among the participants, and a prevalence of employees involved in up to 10 hours of job training during the year before the study. The clusters do not differ for the years spent within the organization, nor for the organizational area of belonging (administrative vs technical area).

Building on these findings, in the following paragraphs, Cluster 2 will be referred to as the cluster of satisfied employees, and Cluster 1 as the cluster of unsatisfied employees.

Section a

Item	Cluster 1 (<i>N</i> = 113)		Cluster 2 (<i>N</i> = 66)		<i>t</i>
	M	DS	M	DS	
Training is necessary in my work	4.655	0.579	4.833	0.414	3.155*
Higher training corresponds to higher performance	4.150	0.879	4.303	0.525	3.033*
If I could, I’d do even more training than I already do	4.080	0.956	4.061	0.875	0.135
I generally manage to apply the skills learned during training in my work	3.655	1.033	4.015	0.511	3.850*
The skills acquired in training improve my work	4.053	0.915	4.455	0.532	4.656*
My supervisor encourages and supports me in using the new skills learned	3.159	1.107	4.106	0.726	6.955*
In my office/team the use of new skills is appreciated	3.681	1.088	4.303	0.607	4.967*
The training I am offered is applicable in my work	3.097	1.060	4.197	0.503	9.121*
I consider sufficient the formation that I receive annually in order to better fulfill my job	2.319	1.104	3.924	0.730	12.512*
The organization provides me with the tools to apply the skills I learned	2.805	0.972	3.864	0.742	8.460*
In my organization training is inherent in the company culture	2.690	0.907	4.030	0.554	10.917*
The training plan is adequately managed by my organization	2.204	0.792	3.955	0.593	16.511*
The courses I participate in during the year meet my needs	2.186	0.830	3.894	0.530	17.152*
It is clear to me the entire formative process and who involves	2.398	1.031	3.955	0.849	11.772*

Section b

Variable	Cluster 1 (%)	Cluster 2 (%)	χ^2
Organizational area (% of employees in the administrative area)	8	15.2	2.798
Job role (% of team leaders)	0.9	21.2	49.258*
Number of training hours in the last year (% of employees with 40–50 hours)	3.5	15.2	
Number of training hours in the last year (% of employees with more than 50 hours)	6.2	16.7	22.911*
Years within the organization (% of employees who spent more than 10 years)	86.5	89.5	1.319

Note: **p* < 0.005

Table 1.
Job training
satisfaction and job-
related variables
among the clusters

Differences between satisfied and nonsatisfied employees

Table 2 shows the results of the *t*-tests on the differences in perceptions of KS practices between satisfied and unsatisfied employees. Overall, the formers are more likely to positively perceive KS practices at work. In detail, satisfied employees recognize higher importance to the KS practices within organizations (Item 1), report to have been involved in more practices (at the team- or organization-level, Items 3 and 4), and, more generally, have a better perception of such initiatives (Item 9), when compared to unsatisfied coworkers. On the contrary, unsatisfied employees consider the KS procedure as mostly informal (Item 5) and tend to perceive a possible formalization as a risk for worsening job demands (Item 8) compared to satisfied colleagues.

Discussion

The findings suggest that when employees are satisfied with their job training experiences, they are more likely to value and recognize KS practices. More specifically, on one side, satisfied employees acknowledge the relevance and importance of the systematization of such practices in any workplace. On the other hand, they refer to having been involved in such practices at their workplace.

This section will discuss such results, providing theoretical underpinnings and links with organizational and managerial practices.

Regarding the association between job training satisfaction and positive perceptions of KS practices, several authors showed that the training experiences have a role in boosting employee positive attitudes toward the organization (Bartlett and Bartlett, 2011; Egan *et al.*, 2004; Traut *et al.*, 2000).

Considering the present study as a first attempt to link overall training satisfaction with KS practices, the results are coherent with the literature, linking positive training experience with positive attitudes toward organization.

Item	Cluster 1 (<i>N</i> = 113)		Cluster 2 (<i>N</i> = 66)		<i>t</i>
	M	DS	M	DS	
I consider the dissemination of knowledge very important in the world of work (in general)	4.611	0.795	4.879	0.329	-3.152*
I believe that the knowledge acquired is personal and should not be necessarily	1.549	0.756	1.500	0.916	0.365
In my office, knowledge sharing/sharing activities are usually carried out	2.903	1.187	4.076	0.730	-8.184*
Knowledge sharing activities are carried out in my organization	2.381	0.957	3.348	0.850	-7.011*
Knowledge sharing, when carried out, remains an informal practice	3.885	0.904	3.576	1.039	2.089°
I believe knowledge sharing needs to be formalized at the organizational level	3.938	0.899	4.121	0.832	-1.379
Knowledge sharing should remain informal and at the discretion of workers	2.292	1.041	2.091	0.854	1.400
Knowledge sharing, if formalized, would result in "aggravation" rather than aid	2.363	1.086	2.045	0.999	1.985°
Formalization of knowledge sharing would encourage the dissemination of good practices within the organization	4.027	0.796	4.288	0.651	-2.384*

Notes: **p* < 0.005; °*p* < 0.05

Table 2. Perception of knowledge-sharing practices in satisfied vs unsatisfied employees

Consistently, the items that better differentiated between satisfied and unsatisfied employees in this study were related to the fit among job-related training expectations and past training experiences. Our findings, indeed, showed that satisfied employees were mainly characterized by beliefs such as a good match between professional needs and proposed courses and activities, the effectiveness of training opportunities to deal with the work demands and a proper planning of the training activities. With this regard, it is interesting to consider the theme of the meaning of work. According to the literature on meaning and meaningfulness within organizations, indeed, employees perceiving a fit among daily tasks, personal values and significance attributed to the job, and the organizational culture are not only more happy with their job experience, but even more likely to commit to their organization (Buonomo *et al.*, 2020a, 2020b; Rosso *et al.*, 2010; Wrzesniewski *et al.*, 2003). Furthermore, training and development opportunities shape the idea of oneself as a professional (Steger *et al.*, 2019). The increasing mobility of employees across organizations and careers gives even more saliency to this topic: it is not possible to grow as a professional (but even to remain employable) without considering one's job as a life-long learning experience (Huang, 2020; Schmidt, 2007). Thus, it is highly likely that employees satisfied with their training experiences feel a need to develop personally and professionally and think that the training opportunities occurring at work fulfill that need (Baron and Parent, 2015; Kraiger and Cavanagh, 2014). On the other hand, the fact that the item with the highest weight in defining the satisfied cluster referred to employee needs met, suggests that the association between the variables may be influenced by employee personal and professional needs, as well as other personal beliefs and preferences. Further research could address this point, individuating the potential moderators in the association between job training satisfaction and positive perceptions of KS practices.

Regarding the effect of job training satisfaction on the ability to report KS experiences at work, this point is particularly interesting when considering that the two groups, according to the Chi-squared analyses, did not differ in terms of years of experience within the organization or type of job (technical vs. administrative). This may suggest that job training satisfaction itself could be a valuable factor when studying employee perceptions of knowledge management at work. It is likely, indeed, that satisfied workers are more attuned to organizational initiatives and more ready to take part and benefit from them. This may be consistent with the broaden and build theory, according to which employees attuned to their positive experiences and emotions at work are more proactive, from a cognitive and behavioral point of view (Fredrickson, 2001). Both meaning and positive emotions are part of the PERMA model of well-being (Butler and Kern, 2016; Watanabe *et al.*, 2018), according to which happiness occurs from both positive emotions and experiences (e.g. taking part to a training activity perceived as satisfying and valuable) and growth-related experiences (e.g. considering the training activity as meaningful for one's idea of work, professional aspirations and sense of achievement).

Another consideration to be made regarding our findings involves the COVID-19 outbreak occurring during the data gathering. It is likely that the higher frequency of formalized, online KS practices to which any organization was forced contributed to the higher saliency of items related to structured, formalized and systematized KS activities.

Implications

Building on our findings, a first possible implication is related to the importance of assessing and monitoring employee satisfaction with their job training experiences. While it is common to assess the degree of employee satisfaction after specific training opportunities (Huang, 2020), the practice of regularly addressing whether and how employees are satisfied with the whole set of planned learning activities planned in the organization is not. As our

findings suggest, it is likely that human resources management (HRM) may benefit from this type of monitoring, as it allows to gather information about the impact and value of the training strategies implemented and, consequently, to gather valuable information to deliver future training opportunities. Considering the results highlighted by Cortini (2016) about the role of learning climate in job satisfaction, it is coherent to assume that HRM can now benefit of a new tool to implement for a better understanding the opinion of the employees. Pursuing a proper analysis of training and professional needs, indeed, may boost employee motivation to participate in training activities, as well as their feedback and satisfaction with the experience.

At the same time, this study suggests that KS practices may be enriched not only by tailoring satisfying job training experiences at work, but even by creating a collaborative working environment in general. Considered that KS may occur both in formal and informal settings, it is likely that creating the conditions to collaborate on a daily basis among colleagues would increase the motivation to join more structured forms of training and KS activities as well. This kind of experiences, in turn, may boost employee sense of well-being at work.

Limitations and further research

This work is not without limitations. A first consideration encompasses the idea itself of job training satisfaction. As underlined by Schmidt (2007), indeed, it is likely that employee satisfaction may be due to different aspects of the training experience. Considering that all the participants in this study work in the same organization, it is likely that the specific organizational strategies and choices about training and development opportunities have strongly informed the participants' opinions during the study. For this reason, further studies may address these topics and their links, while differentiating the data gathering across different types of organizations. A second consideration is related to the tools used to gather the data. While, to the best of our knowledge, when the study was planned, there were no tools that would allow for a validated brief measurement of our constructs, and despite our measures show a good reliability (Cronbach's alpha = 0.78 and 0.76 for KS practices and job training satisfaction, respectively), the tools used in this study should be further tested and validated.

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