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Antecedents and Consequences of Counterproductive Knowledge Behaviours: Study of Home Care Organizations in Finland

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Abstract: Public organizations providing home care services for older people have evolved towards crisis in many Finnish cities and municipalities. Due to a systematic attempt in Finland to move care activities from institutions to the homes of older people, public home care organizations have needed to serve ever increasing number of customers with more challenging conditions than before. Unfortunately, the increasing workload has not been adequately matched with the increase of home care workers. Quite understandably, management of the home care organizations have typically seen this situation as a challenge to improve the utilization of existing resources. When dealing with this challenge, management of home care organizations seem to have often relied on one particular organizational metaphor that is still dominant today. This metaphor guides us to see organizations as machines that are made up of interlocking parts, each playing a clearly defined role in the functioning of the whole. To this end, organizational efficiency has been sought by developing detailed work processes with the attempt to optimize the use of home care workers' time. Unfortunately, managing organizations in such linear and authoritative way seem to have deteriorated working conditions in many cases, essential problems being time pressures, role conflict, working alone, interruptions, poor team morale, and problems in leadership. This paper explores Finnish public home care organizations. By analyzing semi-structured interviews of home care workers in one organization and results of a survey of work satisfaction in three organizations, the paper seeks to create a conceptual understanding of the counterproductive knowledge behaviours that are causing these organizations to struggle. The paper argues that by following the machine-like metaphor, organizations have turned out to be monologic, with increasing separation of management and the home care workers and with decreasing trust between the organizational layers.

Keywords: counterproductive knowledge behaviours, home care, organization as machines

1. Introduction

Finland has, in recent years, systematically moved the care activities of older people from institutions to their homes (Ministry of Social Affairs and Health, 2012). Not only this has notably increased the number of clients needing home care services, the service needs of the clients have also turned out to be increasingly demanding (Ministry of Social Affairs and Health, 2019). Unfortunately, the increasing workload has not been sufficiently compensated with increase in home care workers. Quite understandably, management of the home care organizations have often seen this situation as a challenge to improve the utilization of existing resources. To this end, many Finnish home care organizations have sought efficiency by developing detailed work processes with the attempt to optimize the use of home care workers' time. Unfortunately, managing organizations in such linear and authoritative way seem to have sometimes deteriorated working conditions of home care organizations, essential problems being time pressures, role conflict, working alone, interruptions, poor team morale, and problems in leadership (Vehko *et al.*, 2018). The state of Finnish home care has also been widely discussed in public media, with similar findings (e.g. Rantanen, 2018). It appears that, despite of the best intentions, actions to improve the working conditions of home care organizations sometimes work in a counter-productive way.

This paper explores three Finnish public home care organizations. By analyzing semi-structured interviews of home care workers and results of a survey of their work satisfaction, the paper seeks to create a conceptual understanding of the counterproductive knowledge behaviours that are causing these organizations to struggle.

2. Theoretical background

Counterproductive knowledge behavior relates to studies of counterproductive work behavior. The latter concept acts on a more general and higher level. Robinson and Bennett (1995, 556) define counterproductive work behavior as “voluntary behavior that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both”. Robinson and Bennett’s (1995) propose that counterproductive work behavior ranges from minor counterproductive actions as taking longer breaks, gossiping about the employer to more significant actions as fraud and sabotage. This type of behavior can be directed towards individuals (harassing or mobbing) or directed against the whole organization (being absent, arriving late). In this paper, we focus on counterproductive knowledge behavior.

Counterproductive knowledge behavior can be described as the antitheses to knowledge sharing. Whereas knowledge sharing has been proven to bring value to organizations, counterproductive knowledge behavior instead impedes the organization from making progress. So far, researchers have identified eleven types of counterproductive knowledge behavior: knowledge sabotage, knowledge hoarding, knowledge sharing hostility, partial knowledge sharing, knowledge withholding, information withholding, knowledge sharing ignorance, knowledge hiding, disengagement from knowledge sharing, information exchange delays, and knowledge sharing deterrents & barriers. These eleven types of counterproductive knowledge sharing behavior will be further discussed below.

However, first, a word of caution. As pointed out by Serenko and Bontis (2016, 1202), there is an overlap in the names and conceptual definitions of counterproductive knowledge behaviors - “For example, there are similarities between knowledge withholding and information withholding. Knowledge sharing hostility includes an element of knowledge hoarding. In some cases, there is a lack of a clear, uniform definition of the phenomenon of interest”. With this in mind, we discuss the eleven types of counterproductive knowledge sharing behavior.

When studying the findings of previous research, we observe that counterproductive knowledge sharing behavior can be more or less intentional. *Knowledge sharing hostility* and *knowledge sabotage* are the most extreme examples of intentional counterproductive knowledge sharing behavior. Researchers (Husted and Michailova, 2002; Hutchings and Michailova, 2004; Husted et al., 2012) describe *knowledge sharing hostility* behavior as a situation of intentional accumulation and concealment of personal knowledge, and as the rejection of external knowledge. *Knowledge sabotage* is by Serenko (2019, 1264) defined as “an incident when an employee (i.e. the saboteur) provides incorrect (i.e. wrong) knowledge to another employee (the target) or conceals knowledge from another employee”.

Additionally, Connelly et al. (2012, 65) define *knowledge hiding*, as an “intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person”. Sorenko and Bontis (2016) further describes that knowledge hiding behavior may range from minor to major behavior. As when ignoring a trivial request or deliberately withholding vital facts that may impact the entire organization. In a similar vein, employees may hide their knowledge from particular co-workers (e.g. due to personal dislike) or the organization (e.g. deciding to put the minimal effort because of unfair compensation). Researchers have found a number of factors causing knowledge hiding behavior. Jha and Verkkey (2018) finds that six factors trigger knowledge hiding behavior among R&D experts: distrust, career insecurity, lack of rewards, competitive work culture, lack of confidence in own knowledge and lack of reciprocation, while Khalid et al. (2018) illustrates that abusive supervising behavior may be a trigger.

Researchers (Webster et al., 2008; Lin and Huang, 2010; Tsay et al., 2014; Wang et al., 2014; Kang, 2016) additionally describes *knowledge withholding* as an intentional concealment of knowledge, but this behavior also concerns unintentional hoarding of knowledge or contribution of less knowledge than desired. Ford and Staples (2010) describe a similar type of contraproductive knowledge behavior. They illustrate *partial knowledge sharing* as a situation where smaller parts of relevant knowledge is shared (i.e. dissatisfactory knowledge disclosure). Then there is also the case of *information withholding*. Researchers (Haas and Park, 2010; Steinel et al., 2010) describe this situation as an intentional failure of employees to share vital information within the organization, although realizing that sharing is needed. Finally, researchers (Hislop, 2003; Lee et al., 2011; Evans et al., 2015) show how individuals may adhere to *knowledge hoarding*. In such cases people deliberately accumulate and conceal the fact that they sit on vital knowledge.

There are also multiple examples of less intentional counterproductive knowledge behavior. For example, Qureshi and Evans (2015) describe *knowledge sharing deterrents* while other researchers (Riege, 2005; Ardichvili *et al.*, 2006; Bundred, 2006; Paulin and Suneson, 2012) use the term *barriers to describe the same phenomena*. *Deterrents and barriers* simply refer to individual and organizational elements inhibiting knowledge sharing processes. In this regard, Israilidis *et al.* (2015, 1113) define *knowledge sharing ignorance* as an “inability that prevents employees from effectively managing the knowledge possessed by organizations”. This behavior refers to a lack of employee awareness. They are poorly informed about the shortage of knowledge, and the availability of intellectual capital within the organization. This lack of information have a negative effect on internal communication, knowledge flows and decision-making processes. Ford *et al.* (2015) describes a passive employee behavior, *disengagement from knowledge sharing*. In this case, employees do not actively communicate knowledge, although they have no aspiration to stop knowledge from being shared. They simply have a low level of organizational commitment. Finally, Guenter *et al.* (2014, p. 284) illustrate *information exchange delays* as gaps between “the moment that a focal employee expects to obtain information until the moment that the focal employee (knowingly) receives the information or decides to stop waiting”.

We make three reflections on the discussion above. First, in line with Sorenko and Bontis (2016) we find that research on counterproductive knowledge behavior is scarce. Second, the research accounted for above has focused on individual or organizational levels. Indeed, there are very few studies on the subject of teams and counterproductive knowledge behavior. However, Fong *et al.* (2018) shows that knowledge hiding may have a negative effect on team creativity, while Zhang and Min (2019) shows that knowledge hiding has a negative effect on project team performance. Finally, Babič *et al.* (2019) propose that higher levels of collective pro-social motivation and high levels of leader-member exchange makes team members less prone to hide knowledge. Third, research has typically focused on private firms. Indeed, we can only identify one study performed on public healthcare organizations. Han and Pashouwers (2018) studied employees’ willingness to share information. They found that organizational culture has impact on sharing behavior. These three reflections makes us believe that there is both need and value of studying counterproductive knowledge behavior in public Finnish healthcare teams.

3. Research methods

The present study is a part of a project aiming to coach home care teams towards self-organizing team practices. In this study, we used a mixed method approach, which included quantitative analyses of the job satisfaction survey and qualitative analyses of the semi-structured theme interviews. For quantitative study, we surveyed case organizations from three municipalities in Finland. Two of these organizations took part of our coaching activities towards self-organizing team practices. One organization is located in a large city in Southern Finland. Another organization is located in a smaller municipality with more rural areas. From these two organizations, 25 teams took part in the survey. Three teams from the smaller municipality and 22 from the larger one. In addition, one more municipality joined the project at later stage. The participation of this large organization enabled us to gather richer data of home care workers and other care workers in the services for older people. The number of teams in the third area was 52, of which 20 were from home care. Other teams were from assisted living facilities, rehabilitation services and other services for older people. The third organization did not participate in our coaching activities. They had conducted coaching independently.

For gathering quantitative data, we mailed a personnel survey to the home care workers of the participating teams. Total number of surveys sent was 1324. The participants had the possibility to answer the survey either in Finnish or in Swedish, and the time to answer was between February and March 2020. The survey was directed to those home care workers who were either permanent staff or substitutes with more than six months of work experience in the present unit. In the survey, we included questions related to worker well-being, teamwork, management and stressors. One reminder was sent three weeks after the first survey was mailed. Supervisors were encouraged to remind workers to answer the survey.

We used a linear regression analyses to examine the association of participative safety in teams with stress factors, organizational justice and job characteristics variables. The statistical analyses were performed with R, version 3.6.0. We conducted the analyses using a forward stepwise regression, where we first examined the univariate regressions between participative safety and variables of interest, nine in total. Then we added variables to the model based on the significance of the association. In the final model (table 1), four variables fitted the model best (Adjusted R squared .377).

Our qualitative material was gathered by conducting semi-structured theme interviews with home care workers in the large city. The themes of the interviews included: job satisfaction, leadership and management, client work and client satisfaction, teamwork and its functioning, and trust. The themes were chosen to gain a comprehensive understanding of the case organization’s home care and its functioning. Despite of these predefined themes, the interviewees were able to discuss any topic that was seen important in regards to their organization or their experiences in it. Altogether, we interviewed 15 employees in 2018. Interviews lasted from 45 to 60 minutes. They were tape-recorded and transcribed verbatim by a professional service firm. Interviewees were practical nurses (n=14) with one registered nurse. The analysis of qualitative data has been done in a deductive manner. We used the eleven types of counterproductive knowledge behaviour, described in the previous section, as predefined codes. We then scanned all transcribed interviews line by line and labelled all portions of text that were related to any of these predefined codes.

4. Results

A total number of survey respondents was 600 of which 255 were from home care (total survey response rate 45%). The majority of the respondents were females and their mean age was 43 years. The survey results revealed that the team climate in home care is rather good. Team members share the goals and they feel safe to discuss their work and its problems. Information is typically shared among the team members. The major problems in the teams are related to innovation and decision making authority. The teams do not have time for innovation and even if new ideas are proposed, there are no systematic ways to develop the ideas further and to evaluate, how they would work in real life. Furthermore, the teams don’t have the authority to try their development ideas in practice. Despite the fact that team climate is at a high level, the variation is large between teams and in some of the teams, discussion of problems at work is not possible.

Table 1 shows that social support from the team and procedural justice are the most important antecedents of information sharing and safe team culture. Procedural justice refers to, decision-making practices in management, where decisions are justified with correct information, decisions are not biased and employees are asked their opinions of the decisions concerning them. Also, the characteristics of the work are related to information sharing as autonomy at work and possibility to use one’s skills are related to team climate. These characteristics mean that employees have responsibility over their work. High autonomy requires, however, support in difficult situations. Lack of possibilities to consult someone in difficult situation is harmful for the team culture. Team culture where information is shared seems to require both fair management and support from both the manager and the team, but also a culture where employees are given responsibility.

Table 1: Results from the linear regression analyses showing the association between participative safety and job characteristics

	Participative safety	
Predictors	Adjusted Coefficients (95% CI)	p-value
Social support	0.29773 (0.386 – 0.210)	***
Procedural justice	0.22616 (0.301 – 0.151)	***
Autonomy	0.18948 (0.256 – 0.123)	***
Skill discretion	0.12036 (0.206 – 0.035)	**
Lack of consultation possibilities	-0.10097 (-0.039 – -0.163)	**
Significance codes: ***<0, **<0.001, *<0.01 * Adjusted R-squared: 0.3776		

The results of our deductive qualitative analysis are summarized in Figure 1.

We identified several examples of *knowledge sharing deterrents and barriers*. Our analysis suggests that there is a clear separation between the management level and the team level. These two levels seem to be quite unaware of each other. Team members expressed that some of the existing work processes do not fit well into their work environment. From the team perspective, this has created distrust towards management. Team members feel that they are not heard when making decisions about work processes and that they don’t have sufficient opportunities to make their own decisions. The interviews also reveal that managers currently seem overloaded.

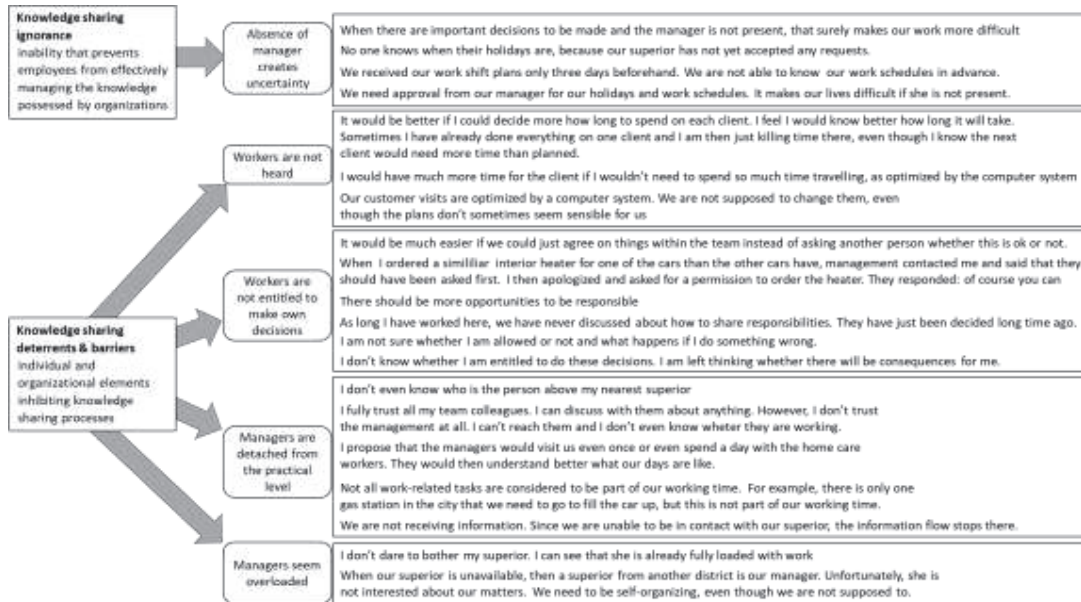


Figure 1: Summary of qualitative findings

The identified examples of *knowledge sharing ignorance* revealed the vulnerability of management-driven organization. The superior of one of the home care teams was chronically unavailable. When the person responsible on decision-making cannot be reached, the homecare team has faced great deals of uncertainty. As some example, the workers are no longer able to know their work schedules or holidays well in advance.

5. Discussion

The qualitative findings from the case team in the large city revealed that their organizational structure contains features from the machine-like organization. Characteristics of such organization include clear line of authority from superior to subordinate, division of work, centralization of authority, and obedience in accordance with agreed rules (Morgan, 1997). The findings suggest that by following the machine-like metaphor, the case-organization have turned out to be monologic, with increasing separation of management and the home care workers and with decreasing trust between the organizational layers. Our qualitative analysis identified themes suggesting that management was detached from the home care teams and that the workers felt that they have little opportunities to influence the work practices.

Our findings also suggest some vulnerabilities of a machine-like organization. The interviews revealed that managers have sometimes become overloaded with work and have hence become bottlenecks of decision-making. This can impede the performance of the organization. Our interviews revealed one severe case, where home care teams were somewhat paralyzed due to the absence of the team leader. In this situation, the team members acted in a self-organizing way, but were unsure whether they are entitled to do so.

Even though some of the teams taking part in the survey did not resemble machine-like organizations, the quantitative results were nevertheless similar with the qualitative findings. Quantitative analysis revealed that fairly perceived management and support from colleagues and manager were important predictors of team climate. Our interviews suggest that if the team leader is absent, team members may experience lack of support, which also could be considered as unfair management. One essential challenge identified by both arms of research approaches was that teams lack of authority to make decisions. This brings forward an issue that is important for any home care organization wishing to become more self-organizing. Our findings suggest that home care workers cannot change their behaviour towards self-organization before managers change theirs. That is, the first step towards self-organization is that managers empower the workers and remove organizational practices restricting workers to take initiative. Only then one can expect self-organizing behaviour to emerge.

6. Conclusions

We have in this paper explored Finnish home care organizations with both quantitative and qualitative methods. Our findings revealed that organizing home care teams in a hierarchical manager-driven way can lead to counterproductive knowledge behaviours. In particular, our findings suggest that such organizational style has resulted with monological organization, where managers are clearly detached from the teams, both parties having insufficient understanding of each other's viewpoints. We have, in our research project, attempted to alleviate such challenges by coaching home care teams towards self-organizing work practices. Our gathered data suggest that changes for this objective can be notably improved if managers of the organization are willing to reevaluate their organizational principles.

References

- Ardichvili, A., Maurer, M., Li, W., Wentling, T. and Stuedemann, R. (2006), "Cultural influences on knowledge sharing through online communities of practice", *Journal of Knowledge Management*, Vol. 10 No. 1, pp. 94-107.
- Attewell, P. (1992). Technology diffusion and organizational learning: The case of business computing. *Organization Science*, 3(1), 1-19.
- Babič, K., Černe, M., Connelly, C. E., Dysvik, A., & Škerlavaj, M. (2019). Are we in this together? Knowledge hiding in teams, collective prosocial motivation and leader-member exchange. *Journal of Knowledge Management*. 23(8), 1502-1522.
- Bundred, S. (2006), "Solutions to silos: joining up knowledge", *Public Money & Management*, Vol. 26 No. 2, pp. 125-130.
- Evans, J.M., Hendron, M.G. and Oldroyd, J.B. (2015), "Withholding the ace: the individual- and unit-level performance effects of self-reported and perceived knowledge hoarding", *Organization Science*, Vol. 26 No. 2, pp. 494-510.
- Fong, P. S., Men, C., Luo, J., & Jia, R. (2018). Knowledge hiding and team creativity: the contingent role of task interdependence. *Management Decision*. 56 No. 2, pp. 329-343.
- Ford, D.P. and Staples, S. (2010), "Are full and partial knowledge sharing the same?", *Journal of Knowledge Management*, Vol. 14 No. 3, pp. 394-409.
- Ford, D., Myrden, S.E. and Jones, T.D. (2015), "Understanding 'disengagement from knowledge sharing': engagement theory versus adaptive cost theory", *Journal of Knowledge Management*, Vol. 19 No. 3, pp. 476-496.
- Guenter, H., van Emmerik, I.H. and Schreurs, B. (2014), "The negative effects of delays in information exchange: looking at workplace relationships from an affective events perspective", *Human Resource Management Review*, Vol. 24 No. 4, pp. 283-298.
- Haas, M.R. and Park, S. (2010), "To share or not to share? Professional norms, reference groups, and information withholding among life scientists", *Organization Science*, Vol. 21 No. 4, pp. 873-891.
- Han, J., & Pashouwers, R. (2018). Willingness to share knowledge in healthcare organisations: the role of relational perception. *Knowledge Management Research & Practice*, 16(1), 42-50.
- Hislop, D. (2003), "Linking human resource management and knowledge management via commitment: a review and research agenda", *Employee Relations*, Vol. 25 No. 2, pp. 182-202.
- Husted, K. and Michailova, S. (2002), "Diagnosing and fighting knowledge-sharing hostility", *Organizational Dynamics*, Vol. 31 No. 1, pp. 60-73.
- Husted, K., Michailova, S., Minbaeva, D.B. and Pedersen, T. (2012), "Knowledge-sharing hostility and governance mechanisms: an empirical test", *Journal of Knowledge Management*, 16(2), 754-773.
- Hutchings, K. and Michailova, S. (2004), "Facilitating knowledge sharing in Russian and Chinese subsidiaries: the role of personal networks and group membership", *Journal of Knowledge Management*, 8(2), 84-94.
- Israilidis, J., Siachou, E., Cooke, L. and Lock, R. (2015), "Individual variables with an impact on knowledge sharing: the critical role of employees' ignorance", *Journal of Knowledge Management*, Vol. 19 No. 6, pp. 1109-1123.
- Jha, J. K., & Varkkey, B. (2018). Are you a cistern or a channel? Exploring factors triggering knowledge-hiding behavior at the workplace: evidence from the Indian R&D professionals. *Journal of Knowledge Management*. 22(4), 824-849.
- Kang, S.W. (2016), "Knowledge withholding: psychological hindrance to the innovation diffusion within an organisation", *Knowledge Management Research & Practice*, Vol. 14 No. 1, pp. 144-149.
- Khalid, M., Bashir, S., Khan, A. K., & Abbas, N. (2018). When and how abusive supervision leads to knowledge hiding behaviors. *Leadership & Organization Development Journal*. 39(6), 794-806.
- Lee, H., Kim, J.W. and Hackney, R. (2011), "Knowledge hoarding and user acceptance of online discussion board systems in eLearning: a case study", *Computers in Human Behavior*, Vol. 27 No. 4, pp. 1431-1437.
- Lin, T.C. and Huang, C.C. (2010), "Withholding effort in knowledge contribution: the role of social exchange and social cognitive on project teams", *Information & Management*, Vol. 47 No. 3, pp. 188-196.
- Ministry of Social Affairs and Health: Sosiaali- ja terveydenhuollon kansallinen kehittämissuunnitelma (THE KASTE PROGRAMME) 2012–2015. 2012, <http://urn.fi/URN:ISBN:978-952-00-3358-3>
- Ministry of Social Affairs and Health: Reform of home care for older people and informal care for all age groups 2016–2018. Results and operational frameworks. 2019, <http://urn.fi/URN:ISBN:978-952-00-4060-4> In Finnish, abstract in English
- Morgan, G. (1997), "Images of organization", Sage Publications.
- Paulin, D. and Suneson, K. (2012), "Knowledge transfer, knowledge sharing and knowledge barriers – three blurry terms in KM", *Electronic Journal of Knowledge Management*, Vol. 10 No. 1, pp. 81-91.

- Qureshi, A.M.A. and Evans, N. (2015), "Deterrents to knowledge-sharing in the pharmaceutical industry: a case study", *Journal of Knowledge Management*, Vol. 19 No. 2, pp. 296-314.
- Rantanen, Annika (2018). "Kotihoidolta hätähuuto Jyväskylässä: 'Olemme väsyneitä ja surullisia, koska emme saa tehdä työtämme kunnolla'. [Cry for help from Home Care Services in Jyväskylä: 'We are tired and sad, because we cannot do our work properly']". *Yle Uutiset*, January 24, 2018. <https://yle.fi/uutiset/3-10037765>.
- Riege, A. (2005), "Three-dozen knowledge-sharing barriers managers must consider", *Journal of Knowledge Management*, Vol. 9 No. 3, pp. 18-35.
- Robinson, S.L. and Bennett, R.J. (1995), "A typology of deviant workplace behaviors: a multidimensional scaling study", *The Academy of Management Journal*, Vol. 38 No. 2, pp. 555-572.
- Serenko, A. (2019). Knowledge sabotage as an extreme form of counterproductive knowledge behavior: conceptualization, typology, and empirical demonstration. *Journal of Knowledge Management*. 23(7), 1260-1288.
- Serenko, A., & Bontis, N. (2016). Understanding counterproductive knowledge behavior: antecedents and consequences of intra-organizational knowledge hiding. *Journal of Knowledge Management*. 20(6), 1199-1224.
- Steinel, W., Utz, S. and Koning, L. (2010), "The good, the bad and the ugly thing to do when sharing information: revealing, concealing and lying depend on social motivation, distribution and importance of information", *Organizational Behavior and Human Decision Processes*, Vol. 113 No. 2, pp. 85-96.
- Tsay, C.H.H., Lin, T.C., Yoon, J. and Huang, C.C. (2014), "Knowledge withholding intentions in teams: the roles of normative conformity, affective bonding, rational choice and social cognition", *Decision Support Systems*, Vol. 67 No. 11, pp. 53-65.
- Vehko T, Josefsson K, Lehtoaro S, Sinervo T: Vanhuspalveluiden henkilöstö ja työn tuloksellisuus rakennemuutoksessa [Personnel and work efficiency in services for older people during structural changes]. 2018, National Institute for Health and Welfare. Report 16/2018. 83 pages. <http://urn.fi/URN:ISBN:978-952-343-241-3> Abstract in English
- Wang, Y.S., Lin, H.H., Li, C.R. and Lin, S.J. (2014), "What drives students' knowledge-withholding intention in management education? An empirical study in Taiwan", *Academy of Management Learning & Education*, Vol. 13 No. 4, pp. 547-568.
- Webster, J., Brown, G., Zweig, D., Connelly, C.E., Brodt, S. and Sitkin, S. (2008), "Beyond knowledge sharing: withholding knowledge at work", in Martocchio, J.J. (Ed.), *Research in Personnel and Human Resources Management*, Emerald, Bingley, pp. 1-37.
- Zhang, Z., & Min, M. (2019). The negative consequences of knowledge hiding in NPD project teams: The roles of project work attributes. *International Journal of Project Management*, 37(2), 225-238.