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Bachelor thesis

Knowledge-sharing activity within virtual communities of practice and its relationship with needs satisfaction and organizational commitment

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Abstract

Virtual communities of practice are regarded as a suitable environment to share knowledge within an organization. The purpose of this study was to examine the possible advantages of knowledge-sharing activity within virtual communities of practice (VCoP) for organizations. In doing so, it was examined to what extent the level of knowledge-sharing activity within a VCoP is related to perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment. In order to test the research question an online survey was conducted amongst 78 employees from the Rabobank (a Dutch bank) who have access to the VCoP Yammer. The results showed that the level of knowledge-sharing activity within a VCoP is, as hypothesized, positively related to perceived competence at work and that perceived competence at work, perceived autonomy at work and perceived relatedness at work have a positive relationship with affective organizational commitment. However, it could not be confirmed that the level of knowledge-sharing activity is related with perceived autonomy at work, perceived relatedness at work or affective organizational commitment. This means that VCoPs could be a useful organizational communication tool but they are not a guarantee for advantages for organizations. Other organizational factors that might have an influence on the needs of the employees are discussed. More research is needed to further examine this field of research and to get a more detailed picture of what knowledge-sharing activity within a VCoP could offer within the working environment.

Keywords: Virtual communities of practice, knowledge-sharing, self-determination theory, organizational commitment

Introduction:

The vast development of technology in the last decade has shaped the way we share knowledge with each other. The internet provides the possibility to share information within virtual communities (VCs). Here, people can share their expertise on a certain topic or search for relevant information (Cross, Bogatti, & Parker, 2001).Virtual communities do not only exist to give other members tips about how to serve a volleyball or searching help to solve a problem in the household, but are more and more often used in the working field as an important business tool (Koh & Kim, 2004). Many organizations make use of these so called virtual communities of practice (VCoP). These VCoPs offer a possibility for their employees to communicate with members of the organization or share relevant internal information (Ardichvili, 2008). In doing so, the employees do not have to follow the traditional hierarchical channels but can directly receive information or contribute knowledge to other employees (Larsen & Mclnerney, 2002). Therefore, companies try to use VCoPs as a new communication tool to effectively manage the existing knowledge within the company (Ardichvili, Page, & Wentling, 2003) and, by this means, try to meet their business objectives (Hsu, Ju, Yen, & Chang, 2007). Examples are more innovation, a higher profit or more favorable attitudes of the employees towards the organization.

Even so, this way of internal communication seems promising for organizations, research has until now focused on another angle of knowledge-sharing activity within VCoPs. Much research has already been done on the different factors that motivate users to share knowledge within a virtual community of practice (e.g. Wang & Noe, 2010; Kankanhalli et al., 2005).

It has not yet been fully examined whether the level of sharing knowledge activity within a VCoP itself is related to positive organizational factors outside the online environment. Yoon and Rolland (2012) have found a positive relationship between knowledge-sharing activity and perceived competence, perceived autonomy and perceived relatedness but only within the virtual community thus the online environment. The present study will focus on the relationship between the level of knowledge-sharing activity and organizational factors beyond the online environment. Does active knowledge-sharing within VCoPs make a difference for its users at the actual work place? More specifically: Is there a positive relationship between the level of knowledge-sharing activity within a VCoP and the perceived competence at work, perceived autonomy at work and perceived relatedness with

co-workers? Could the frequency of sharing knowledge within a VCoP also be related to other positive organizational factors such as organizational commitment?

The present study tries to answer these questions by investigating to what extent the level of knowledge-sharing activity within a virtual community of practice relates to the perceived competence, autonomy and relatedness at work and to organizational commitment. In doing so, it is the aim of the present study to fill this gap and make a relevant contribution to the knowledge-sharing field of research. Answering the above asked questions could also help to create a clearer picture of what possible values active knowledge-sharing could have for employees. This is relevant to the society as it shows how useful VCoPs could be within companies and whether their use could have advantages for the employees and the company itself. The results of the present study will clarify to what extent active knowledge-sharing within virtual communities of practice relates to actual benefits in terms of perceived competence at work, perceived autonomy at work, perceived relatedness at work and organizational commitment.

In order to make this contribution, this research focuses on the following question:

> *To what extent is the level of knowledge-sharing activity within a VCoP related to perceived competence at work, perceived autonomy at work, perceived relatedness at work and organizational commitment?*

Virtual communities of practice

As the use of virtual communities of practice is relatively new, there are different approaches to find a good definition for this concept. Koh and Kim (2004) described a virtual community of practice as a community which encourages knowledge-sharing via computer- mediated-communications. Ardichvili (2008) defined virtual communities of practice as an organizational tool that offers community members the possibility to share and co-create knowledge in an online environment. Members can use different media channels within a VCoP. These range from classical communication technologies such as phone, videoconference, e-mail and newsgroups to more modern communication technologies such as common database, website and intranet (Barrett, Cappleman, Shoib, & Walsham, 2004). The use of the different communication technologies offers the possibility to not only ask questions or search for information but also to provide relevant information for others (Cross, Bogatti, & Parker, 2001). Thus, a VCoP could provide a suitable environment to encourage knowledge-sharing activity.

Knowledge-sharing in an organization was described by Ryu, Ho and Han (2003) as the behavior of an individual, who makes his acquired knowledge available to other colleagues for professional tasks.

As mentioned before, the research in the field of VCoPs has so far focused on how to motivate users to participate in the virtual communities of practice and share their knowledge with other members (e.g. Wang & Noe, 2010; Nahapiet & Ghoshal, 1998; Kankanhalli et al., 2005). Research has shown that people can either be extrinsically or intrinsically motivated to perform a certain behavior (Hung, Durcikova, Lai, & Lin, 2011). The most well known theories that deal with the different factors of motivation in VCoPs are the following: Firstly, the social capital theory (Nahapiet & Ghoshal, 1998; Kankanhalli et al., 2005), which assumes that people of the same group possess common values that enable them to build mutual trust. This trust is again the enabler of knowledge-sharing among them (Hung, Durcikova, Lai, & Lin, 2011). Secondly, the social exchange theory states that social behaviors, such as sharing knowledge within a virtual community of practice, are the result of a social exchange process in which individuals exchange their knowledge in order to maximize their benefits and minimize their costs (Hung, Durcikova, Lai, & Lin, 2011).

It has to be noticed that not all participants contribute to the content of a virtual community within an online setting in the same way. So called posters share the most knowledge within the virtual community, whereas lurkers do not post any information but learn from the already existing knowledge (Lai & Chen, 2014). It could be possible that posters and lurkers also exist in VCoPs and thus show a different level of activity in terms of knowledge-sharing.

However, the present research focuses on equally important, yet not fully examined, aspects of VCoPs. Namely the potential relationship between the level of knowledge-sharing activity within a VCoP and positive factors outside the online environment such as a perceived competence at work, perceived autonomy at work, perceived relatedness at work and organizational commitment. As this topic has not been researched to a great extent, a suitable theoretical framework has to be found in order to scientifically measure the above mentioned potential relationships.

Self-determination theory

A suitable theoretical framework to examine the relationship between the level of knowledge-sharing activity within a VCoP and positive organizational factors could be provided by Deci and Ryan (2000): The self-determination theory. This theoretical framework argues that individuals' decisions can emanate from their sense of self as people experience their behavior as an integral part of who they are (Gagne & Deci, 2005). Underlying this self-determined motivation is the concept of need satisfaction. Deci and Ryan (2000) described needs as "innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being"(p.229). The first psychological need is competence which can be described as the need to effectively contribute to certain tasks or outcomes. Related to the working environment, competence could be described as the need to feel capable at work and that one's actions are effective in order to successfully complete the given task (Deci & Ryan, 2001). The second need is the need for relatedness which is concerned with the need to feel connected with others (Deci & Ryan, 2000) At work employees do feel the need to be recognized by their co-workers and have a positive relationship with them (Deci & Ryan, 2001). The need for autonomy describes the urge to have control over one's own actions (Deci & Ryan, 2000). At work, the need for autonomy could be described as the need to include their own ideas and opinions and to be part of decisions concerning their tasks (Deci & Ryan, 2001). In the following, it will be explained how a VCoP and the level of sharing knowledge activity within it could provide a suitable environment to satisfy each of the three basic psychological needs.

According to Deci and Ryan (2000), perceived competence is nearly similar to the concept of efficiency. An individual will perceive themselves as competent if they believe that "he or she can effectively perform a particular task or behavior […]" (Deci and Ryan, 2000, p. 1135). Henri and Pudelko (2003) stated that all virtual communities provide a learning environment and therefore enable participants to learn new skills. By learning new skills participants could find it easier to perform new tasks at work. Also, a VCoP provides the possibility to find relevant information which could make it easier for employees to solve problems and manage their daily working tasks. This expectation leads to the first hypothesis.

> *H1: The level of knowledge-sharing activity within a VCoP positively relates to perceived competence at work.*

Perceived autonomy can be conceptualized as the desire of an individual to self-organize experience and behavior (Deci & Ryan, 2000). Wang and Wang (2012) found that sharing knowledge within a virtual community affects the total amount of knowledge existing in the organization and thus facilitates innovation. Employees who actively share knowledge within a VCoP could be part in the innovation-process of the organization by giving their own ideas and opinions. In doing so, employees can contribute to the development of the organization and should feel that they have more influence on how their tasks are shaped within the organization. Thus, if the employees share more knowledge within a VCoP, they might also feel more autonomous in their working environment.

H2: The level of knowledge-sharing activity within a VCoP positively relates to perceived autonomy at work.

Perceived relatedness can be defined as "the desire to feel connected to others" (Deci & Ryan, 2000, p. 231). Active knowledge-sharing within a virtual community of practice could lead to positive feedback from other users as they could profit from the new information. Also, the employees get to know each other, even if they might be from different organizational units (Larsen & Mclnerney, 2002). This could make it easier for them to get a relationship and work together in person as they already know each other from an online environment. Moreover, in most cases, the participants share a common goal within a virtual community (Henri & Pudelko, 2003) which could create a new group feeling among the employees. Thus, if the employees participate more effectively in the VCoP, they might also feel more related to their co-workers.

H3: The level of knowledge-sharing activity within a VCoP positively relates to perceived relatedness at work.

Organizational Commitment

The satisfaction of the three psychological needs could have a relationship with other organizational factors itself. Deci, Ryan, Gagne, Leone, Usunov and Kornazheva (2001) found that "the theory posits three universal psychological needs - the needs for competence, autonomy, and relatedness - and suggests that work climates that allow satisfaction of these needs facilitate both work engagement and psychological well-being" (p.931). However, it has to be stated that in order to reach the described favorable outcomes, all of the three basic psychological needs have to be satisfied (Deci & Ryan, 2000).

In a work related context, Gagne and Deci (2005) showed that the satisfaction of the needs for competence, autonomy and relatedness is positively related with the organizational performance, satisfaction, trust and well-being in the workplace. This is supported by the findings of Deci et al. (2001) which claimed that the satisfaction of the three basic psychological needs leads to a higher engagement, a reduction of anxiety and a higher general self-esteem even in two different cultures (U.S. and Bulgaria). This shows that need satisfaction is in many different circumstances positively related to favorable organizational outcomes. Thus, on the basis of these studies, it can be anticipated that need satisfaction is related to positive attitudes towards the organization.

The current study is focused on organizational commitment. This concept could be defined as the degree to which an employee identifies with a particular organization and its goals, in order to facilitate reaching those goals they wish to remain a member of the organization (Porter, Crampon, & Smith, 1976). There have been different approaches to describe and explain organizational commitment in more detail. According to Meyer and Allen (1991) continuance commitment is concerned with the "awareness of the costs associated with leaving the organization" (p. 67) whereas normative commitment could be defined as "a feeling of obligation to continue employment" (p. 67). This research will focus on affective organizational commitment as this approach could be most likely the one to be related to perceived competence at work, perceived autonomy at work and perceived relatedness at work. According to Meyer and Allen (1991) affective commitment is concerned with the emotional attachment of an employee to the organization and its values. A high level of affective commitment evokes the wish within the employee to continue one's working contract with this specific organization.

Previous research has examined the underlying factors that facilitate a high level of organizational commitment. One approach examined the relationship between organizational commitment and environmental factors within an organization. It was hypothesized that if the work environment fits and encourages the personal disposition through, for example, fulfilling the individual's needs, a high level of organizational commitment is facilitated (Meyer & Allen, 1991). Furthermore, Gagne and Deci (2005) stated that in a work related context the satisfaction of the needs for competence, autonomy and relatedness, together with other motivational factors, lead to "persistence, effective performance, job satisfaction, positive work attitudes, organizational commitment, and psychological well-being"(p.346). This statement was supported by a study from Greguras and Diefendorf (2009) in which they proved that the satisfaction of the needs autonomy, relatedness and competence have a positive influence on affective organizational commitment.

Thus, it is expected that perceived competence at work, perceived autonomy at work and perceived relatedness at work are positively related to affective organizational commitment.

H4: Perceived competence at work is positively related to affective organizational commitment.

H5: Perceived autonomy at work is positively related to affective organizational commitment.

H6: Perceived relatedness at work is positively related to affective organizational commitment.

Furthermore, if the level of knowledge-sharing activity within a VCoP is positively related to the satisfaction of the needs for competence, autonomy and relatedness at work (Hypotheses 1,2 & 3), it is also expected that the level of knowledge-sharing activity within a VCoP positively relates to affective organizational commitment. By actively sharing knowledge within the VCoP employees could also share information about the vision and the goals of the organization. Being exposed to the positive features of the organization could be related to a greater affective commitment towards the organization. Therefore, it is also expected that there is a relationship between the level of knowledge-sharing activity within a VCoP and a high level of affective organizational commitment.

> *H7: The level of knowledge-sharing activity within a VCoP positively relates to affective organizational commitment*.

Method:

Instruments

In order to examine the relationship between the level of knowledge-sharing activity within a VCoP, perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment, an online survey was conducted. The survey was created with qualtrics and provided to the Dutch company Rabobank which operates in the financial sector and makes use of the VCoP Yammer. The whole questionnaire can be found in Appendix (1). The questionnaire started with a short introductory text, informing the respondents about the purpose of the survey without revealing too much information about the actual research question. For the collection of the data, the questionnaire contained scales to measure each variable of the above presented research question.

The measurements for the variable level of knowledge-sharing activity within a VCoP were adapted from the scale of Lin, Hung and Chen (2009). For this variable four seven-point Likert scales anchored by ‘completely disagree’ – ‘completely agree’ were used. A sample items was the following: ‘I usually spend a lot of time conducting knowledge-sharing activities using Yammer’. In order to measure the reliability of the variable Cronbach’s α was calculated. The reliability of the four items comprising knowledge-sharing in a VCoP was good (α = .89).

Additionally, the frequency of the use of the different functions from Yammer was measured with a nine-point frequency scale ranging from ‘never’ to ‘several times a day’.

The measurements for the variables perceived competence at work, perceived autonomy at work and perceived relatedness at work was adapted from the Basic Psychological Needs Scales (Basic need satisfaction at work) by Deci and Ryan (2001). Perceived competence at work was measured by six seven-point Likert scales (‘completely disagree’ – ‘completely agree’). A statement for competence was for example ‘I have been able to learn interesting new skills on my job’. The reliability of competence comprising four items was α = .58. Therefore, one item (When I am working I often do not feel very capable (R)) was deleted in order to create an acceptable reliability for the variable competence (α = .70).

To measure perceived autonomy at work, seven seven-point Likert scales anchored by ‘completely disagree’ – ‘completely agree’ were used. A statement for autonomy was for example ‘I feel like I can make a lot of inputs to deciding how my job gets done’. The reliability of the seven items measuring autonomy was acceptable (α = .67).

Perceived relatedness at work was measured by eight seven-point Likert scales (‘completely disagree’ - ‘completely agree’). A sample item for relatedness was ‘I really like the people I work with’. The reliability of the eight items measuring relatedness was α = .63. Therefore, one item (I pretty much keep to myself when I am at work. (R)) was deleted in order to create in acceptable reliability for the variable relatedness (α = .66).

To measure the variable affective organizational commitment the Organizational Commitment Questionnaire (Mowday, Steers, & Porter, 1979) was adapted. For this variable 15 seven-point Likert scales (‘completely disagree’ – ‘completely agree’) were used. A sample item was ‘For me this is the best of all possible organizations for which to work’. The reliability of affective organizational commitment comprising 15 items was good (α = .80).

For most scales the Cronbach’s α was .66 or higher, however the scales for autonomy and relatedness were just acceptable (α > .66), therefore compute means were calculated.

After filling in their answers on the Likert scales, the respondents were asked to fill in some biographical data including their gender, age and educational level. All participants were thanked for their cooperation.

Procedure and respondents

The online survey was conducted at the branch office of the Rabobank in Nijmegen. The branch office has approximately 250 employees. All employees, who have access to the VCoP Yammer were provided with a link to the online questionnaire by an intern of the organization and asked to fill in the questions. In order to get a higher number of respondents employees from the branch offices of the Rabobank in Amsterdam and Arnhem were later

directly asked to also fill in the questionnaire. The survey was online from the 9th of December until the 22nd of December.

In total, there were 102 respondents who filled in the questionnaire. Out of these questionnaires only the completed questionnaires (78) were used for the statistical analysis. From the branch office in Nijmegen 74 employees filled in the questionnaire, three respondents from the branch office in Amsterdam answered all the questions and one from the branch office in Arnhem. The percentage of women was 52,6 (total 41) and 44,9 % were male (total 35). The gender of two respondents was missing. The age ranged from 21 to 65 with a mean of 42. The age of one respondent was missing. The different educational levels of the respondents ranged from higher General Secondary Education (Middelbare school HAVO) to a degree at the university. The most frequent educational background was University of Professional Education (HBO) with a percentage of 46,2%.

Statistical treatment

A two-way correlation analysis was used to test a possible relationship between knowledge-sharing within a VCoP, perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment.

Results:

In the following, the results of the statistical analyses will be described. The means and standard deviations of the variables will be given and it will be clarified whether the seven hypothesis can be confirmed or have to be rejected.

Table 1. Means (*M*) and Standard Deviations (*SD*)of the variables (*n* = 78). (1 = very low,7 = very high)

Variable	*M*	*SD*
Level of knowledge-sharing activity	3.32	1.60
Competence at work	5.98	.70
Autonomy at work	5.39	.73
Relatedness at work	5.65	.63
Affective org. commitment	5.55	.62

Table 1 shows that the means of the variables are in general relatively high. It is however remarkable that the mean of the level of knowledge-sharing activity within the VCoP (*M* = 3.32, *SD* = 1.60) is rather low. It is the only variable which is not located on the higher half of the Likert scales.

Moreover, it was measured how often a certain function of Yammer was used among the respondents. Most respondents used the Yammer chat around once per year (*M* = 1.92, *SD* = 1.61). The newsfeed is used nearly once per week (*M* = 4.22, *SD* = 2.42). Most respondents shared knowledge on Yammer once a month or less (*M* = 3.26, *SD* = 1.83). However, knowledge was on average gathered nearly once a week (*M* = 4.62, *SD* = 1.95). Once in a year or less, new groups were established within Yammer (*M* = 1.54, *SD* = .86). Equally frequent, members invited new colleagues into the groups from Yammer (*M* = 1.53, *SD* = .85). On average, respondents accepted those requests between once a year or fewer and once a month and fewer (*M* = 2.54, *SD* = 1.26).

In order to examine the degree of truth of the hypotheses, a correlation matrix was carried out.

Table 2. Correlations (*r*) between the level of knowledge-sharing activity within a VCoP, perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment

Variable	1	2	3	4
Level of knowledge-sharing activity				
Competence at work	.30*			
Autonomy at work	.08			
Relatedness at work	.05			
Affective org. commitment	.18	.63**	.50**	.29*

* $p < .010$, ** $p < .001$

As it can be seen in Table 2, a significant positive correlation was found between the level of knowledge-sharing activity within a VCoP and perceived competence at work (r (78) = .30, p = .008). Respondents who frequently participated in a knowledge-sharing activity within the VCoP were found to feel more competent at work. Thus, hypothesis 1 can be confirmed.

No significant correlation was found between knowledge-sharing behavior within a VCoP and perceived autonomy at work ($p > .05$). Thus, hypothesis 2 has to be rejected.
There was no significant correlation found between knowledge-sharing behavior within a VCoP and perceived relatedness at work ($p > .05$). Thus, hypothesis 3 also has to be rejected.

A significant positive correlation was found between perceived competence at work and affective organizational commitment (r (78) = .63, $p < .001$). This means that respondents who felt more competent at work also had more affective commitment towards their organization. Hypothesis 4 can be confirmed.

A significant positive correlation was found between perceived autonomy at work and affective organizational commitment (r (78) = .50, $p < .001$). Respondents who felt more autonomous at work also had more affective commitment towards their organization. Thus, hypothesis 5 can be confirmed.

A significant positive correlation was found between perceived relatedness at work and affective organizational commitment (r (78) = .29, $p = .009$). Respondents who felt more related with their colleagues at work also had more affective commitment towards their organization. Hypothesis 6 can be confirmed.

However, no significant correlation was found between the level of knowledge-sharing activity within a VCoP and affective organizational commitment ($p > .05$). Thus, hypothesis 7 has to be rejected.

Conclusion and discussion:

First, this section will restate the purpose of the present study and then summarize the results for each hypothesis. In doing so, explanations for the findings from each hypothesis will be given and if possible based on existing literature. On the basis of this the research question will be answered. Second, the discussion will focus on practical implications of the results as well as limitations of the present study and possibilities to further explore this field with future research.

The purpose of this study was to examine the relationship between the level of knowledge-sharing activity within a VCoP, perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment. The answers could provide further insight on the possible advantages of the use of VCoPs within the working environment.

The results of the present study show that the level of knowledge-sharing activity within a VCoP is, as expected, positively related to perceived competence at work as users who shared knowledge more frequent, felt more competent at work (Hypothesis 1). This finding is in line with the literature as it was suggested that VCoPs could provide an environment which enables users to gain new information and learn new skills (Henri & Pudelko, 2003). This was the case in the present study as the VCoP was most frequently used to gather information in general or use the newsfeed for help. The possibility to use the VCoP in this way helps the users to effectively perform their tasks at work and thus feel competent within their working environment (Ryan & Deci 2000).

It was assumed that the level of knowledge-sharing activity within a VCoP would be positively related to perceived autonomy at work (Hypothesis 2). However, respondents who actively shared knowledge within the VCoP did not necessarily feel more autonomous at work. This finding is not in line with the literature. An explanation for this result could be found in the use of the VCoP itself. Knowledge provided within the VCoP but not many respondents stated that they provided knowledge themselves. This could make the most respondents lurkers who have an observing role in the VCoP (Lai & Chen, 2014). According to Pelletier, Fortier, Vallerand and Briere (2001) people need an internal locus of causality for their actions to feel in control of them. On the other hand, leads an external locus of causality, for example external factors that affect ones decisions, to a feeling of being not autonomous. If most people only read more and more new information on the VCoP without contributing their own ideas, one might feel the urge to use already provided information for their daily tasks. As a consequence, employees could feel that they have less control about the information they work with and feel cramped. If the level of knowledge-sharing activity within a VCoP is experienced as an external locus of causality by the respondents, it could explain why the level of knowledge-sharing activity is not related with perceived autonomy at work.

Other organizational factors might influence the felt autonomy within an organization stronger than the sole use of a VCoP. Research shows that factors such as the structure of the organization could influence the felt autonomy. Engel (1970) found that employees who work in a moderate bureaucratic setting within an organization are most likely to feel autonomous. Thus, the structure of the organization has to provide certain features such as a “stimulating intellectual climate for interchanging information and controlling quality of performance”

(Engel, 1970, p. 19) to give the employees a feeling of control over one's own actions (Ryan & Deci 2000) within their actual working environment.

The present study hypothesized that users who shared knowledge more frequent within the VCoP would feel more related with their co-workers (Hypothesis 3) this hypothesis could actually not be confirmed as the level of knowledge-sharing activity was not related to perceived autonomy at work. The results of the present study show that the interactive functions of the VCoP such as the chat or groups were not frequently used by the employees. Therefore it could be possible that simply reading posted information from another employee is not enough to make one feel more related to this employee.

Another reason for the absence of the relationship between the two variables could be that other organizational factors also influenced the perceived relatedness of the respondents. An example for such an external factor could be the style of leadership that is used within the organization. Research has shown that transformational leadership is related to the employees social identification with the group (Kark, Shamir, & Chen, 2003). In other words: A transformational leadership style helps employees to identify themselves with the group and follow the same goals (Kark, Shamir, & Chen, 2003). This makes transformational leadership to an antecedent of perceived relatedness within the working environment (Kovjanic, Schuh, Quaquebeke, & Dick, 2012).

It was assumed that the three basic psychological needs could have a positive correlation with affective organizational commitment (Hypotheses 4, 5 & 6). Respondent who felt more competent at work, more autonomous at work and more related with their colleagues had indeed a higher affective organizational commitment. These results are in line with the current literature. As Deci et al. (2001) suggested is the satisfaction of the needs competence, autonomy and relatedness related to positive attitudes. Also Gagne and Deci (2005) stated that need satisfaction is positively related to favorable attitudes towards an organization. The results of the current study especially support a positive relationship between perceived competence at work, perceived autonomy at work and perceived relatedness at work and affective organizational commitment, which is in line with the study from Greguras and Diefendorf (2009). The relevant literature in this field of research even goes one step further by stating that the satisfaction of the three psychological needs competence, autonomy and relatedness is not only related but has an influence on positive attitudes towards the organization such as affective organizational commitment (Gagne & Deci, 2005; Greguras & Diefendorf, 2009).

Lastly, the level of knowledge-sharing activity within a VCoP was, contrary to the expectation, not related with affective organizational commitment (Hypothesis 7). A possible explanation could be that the knowledge which is shared could focus on certain tasks or problems and not the whole organization. But affective organizational commitment is concerned with the values of the organization and the personal attachment an employee feels towards the company they work for (Meyer & Allen, 1991). If the content within the VCoP is not concerned with topics such as the vision or mission of the organization, it could explain why in this study knowledge-sharing within a VCoP is not related to affective commitment towards the organization.

Also affective organizational commitment is possibly influenced by other organizational factors. Research shows that employees who feel that their organization rewards their performance and is generally interested in their well-being, show more affective commitment towards their organization (Rhoades, Eisenberger, & Armeli, 2001). Thus, perceived organizational support is an antecedent of affective organizational commitment that has to be taken into account.

To conclude, the research question can only partly be confirmed. The level of knowledge-sharing activity within a VCoP is positively related to perceived competence at work. However, the level of knowledge-sharing activity has no relationship with perceived autonomy at work, perceived relatedness at work or affective organizational commitment.

The outcomes of the current study provide a more detailed view on possible advantages of VCoPs outside the online environment. The results show that sharing knowledge activity within a VCoP could help employees to feel more competent with their daily working tasks. However, organizations have to be cautious about the reasons for implementing a VCoP in their organization. Virtual communities of practice might be useful in terms of knowledge-sharing activities and are, as mentioned before, positively related to perceived competence at work. But as the present study shows, frequently sharing knowledge within a VCoP is not enough to make employees feel more autonomous or related at work nor is it related to more affective commitment towards the organization.

Thus, up until now VCoPs have to be viewed more as an additional organizational communication tool that has some advantages for the organization than a magic cure for an organization.

The results of the current study show that organizations should pay attention to the satisfaction of the needs for competence, autonomy and relatedness among their employees as this leads to positive attitudes towards the whole organization for example a high affective organizational commitment. In association with that, it would be beneficial for organizations to also concentrate on other organizational factors such as transformational leadership and perceived organizational support as studies suggest they have a positive influence on need satisfaction within the working environment.

For the business-communication field of research, the present study adds a new direction about the knowledge-sharing research. In the future, it not only has to be paid attention to the factors that motivate knowledge-sharing within a VCoP but also more research is required about the possible advantages of frequently sharing knowledge within a VCoP can have for organizations. The present study made a promising first step towards a new direction of research in this field.

Limitations and follow-up study

As in every other research the results of the present study have some limitations. The most important limitation for this study is the problem of causality. As the present research used a cross-sectional survey, it can only be stated that certain variables such as perceived competence at work and affective organizational commitment correlate with each other. It remains uncertain whether employees who feel more competent at work have a higher affective organizational commitment or whether employees who have a high affective organizational commitment feel more competent at work. In short, it cannot be said which variable influences the other. Moreover, it has to be noticed that there could always be a third variable that has an effect on the variables of the present research.

It has to be stated that the possibilities to generalize the results of the present study are limited due to the small number of respondents. Thus, this study is relatively small scaled as the branches of the Rabobank that participated in the study were relatively small in comparison to the total amount of employees of the Rabobank.

One of the possible reasons for the high dropout rate could be internal information about the firing of 9000 employees within the Rabobank while the survey was online. This information might also have influenced the results as, for example, employees who know that their position within the organization might be in danger are less likely to feel autonomous as they cannot decide about their own future within the organization.

Another important point is that the questionnaire only dealt with perceived competence, autonomy and relatedness. It can only be assumed whether the level of knowledge-sharing activity within a VCoP is also positively related with actual competence of the employees. Thus, it has yet to be examined whether active knowledge-sharing within a VCoP only has a positive relationship with a high felt competence at work or whether it supports the actual competence of the employees within the working environment.

In order to get a clearer picture of the way in which the tested variables inter-correlate, it would be interesting to conduct a longitudinal study and repeat the survey in the same organization at a different point in time. The possible differences in the answers could provide additional information about the results that were found in the present study and give a clearer picture about which variable had an effect on others and which variable is affected by others.

Another follow-up study could deal with an organization with a different organizational structure in order to examine how great the possible influence of this external factor on the relationship between knowledge-sharing behavior within a VCoP, the three basic psychological needs and affective organizational commitment is. Questions about the structure of the organization and how bureaucratic the working style is could be included in a future questionnaire.

It would also be interesting to combine the research about motivational factors of sharing knowledge with the possible advantages of the level of knowledge-sharing activity within a VCoP. It could be hypothesized that people who have different motivations to share knowledge in the first place (e.g. Hung, Durcikova, Lai, & Lin, 2011) also have different expectations of a VCoP and its usefulness. These different expectations could also have an influence on the relationship between knowledge-sharing within a VCoP, perceived competence at work, perceived autonomy at work, perceived relatedness at work and affective organizational commitment.

To further examine the nature of knowledge-sharing activity within a VCoP, it could be helpful to gain further insight on the kind of knowledge that is shared within a virtual community of practice. Hildreth and Kimble (2002) divide knowledge into two subcategories: Tacit knowledge (soft knowledge) which can be described as individual knowledge of a person (know-how) whereas explicit knowledge (hard knowledge) is described as knowledge that can be openly found for example in books or on websites. It could be interesting to examine what kind of knowledge is shared within a VCoP and how that could influence the relationship between knowledge-sharing activity, need satisfaction and positive attitudes towards the organization such as affective organizational commitment.

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Appendix

(1) Final questionnaire in Dutch

Welkom!

Dit onderzoek gaat over het gebruik van Yammer binnen de Rabobank, en wordt uitgevoerd door de Radboud universiteit Nijmegen. Het doel van het onderzoek is de effectiviteit te achterhalen van het gebruik van een online kennisdelingsplatform zoals Yammer. We willen dus graag weten wat het gebruik betekent voor u als werknemer, en als gebruiker van het platform. Ook wanneer u niet erg actief bent op Yammer vragen we u deel te nemen aan het onderzoek.

De vragenlijst begint met een aantal stellingen over Yammer, vervolgens worden er vragen gesteld over gevoelens die u ervaart ten opzichte van (uw werk binnen) Rabobank. Er zijn weinig stellingen nodig om uw activiteit op Yammer te meten en dit vormt dus een klein deel van de vragenlijst. Hierdoor kan Yammer meer een bijzaak van dit onderzoek lijken, in plaats van een hoofdzaak. Ook omdat we kijken naar de samenhang tussen uw activiteit op Yammer en vier verschillende gevoelszaken (identificatie, betrokkenheid, werktevredenheid en het communicatieklimaat binnen Rabobank) kan dit nog minder lijken. Yammer staat echter centraal in ons onderzoek.

Het invullen van de vragenlijst duurt ongeveer 10 minuten. Op de balk bovenin uw computerscherm kunt u uw voortgang bijhouden.

U doet vrijwillig mee aan dit onderzoek en kunt op elk moment tijdens het invullen van de vragenlijst uw deelname stopzetten. De gegevens die we in dit onderzoek verzamelen, zullen eventueel door wetenschappers gebruikt worden voor artikelen en presentaties. Door op de knop ‘ik ga akkoord’ te klikken gaat u ermee akkoord dat uw antwoorden anoniem worden verwerkt in de bachelorscriptie over het effect van Yammer op haar gebruikers.

U verklaart daarmee eveneens dat u voldoende bent ingelicht over dit onderzoek. U kunt ook na deelname contact opnemen met Renske Jacobs (lem.jacobs@student.ru.nl) om vragen over dit onderzoek te stellen.

Wij danken u hartelijk voor uw deelname.

Geef hieronder uw keuze aan.

Door te klikken op de knop 'Ik ga akkoord' geeft u aan dat u:
- bovenstaande informatie heeft gelezen
- vrijwillig meedoet aan het onderzoek

- 18 jaar of ouder bent

Als u niet wilt deelnemen aan het onderzoek, kunt u op de knop 'Ik ga niet akkoord' drukken.

- Ik ga akkord
- Ik ga niet akkord

Er volgen nu een aantal uitspraken die gaan over de mate waarin u Yammer gebruikt. U kunt aangeven in hoeverre de uitspraak uw situatie representeert door het best passende bolletje aan te klikken.

7 puntschaal: helemaal niet van toepassing – helemaal van toepassing

1	Ik doe regelmatig mee aan de kennisdelings-activiteiten op Yammer	1	2	3	4	5	6	7
2	Als ik Yammer bezoek deel ik meestal actief mijn eigen kennis met anderen.	1	2	3	4	5	6	7
3	Als er ingewikkelde kwesties worden besproken op Yammer, ben ik vaak betrokken bij de online discussie.	1	2	3	4	5	6	7
4	Op Yammer ben ik over het algemeen betrokken bij discussies over gevarieerde onderwerpen, dan enkel discussies over een specifiek onderwerp.	1	2	3	4	5	6	7

9 puntschaal: 1.Nooit 2.een keer per jaar of minder 3.een keer per maand of minder 4.een paar keer per maand 5.een keer per week 6.een paar keer per week 7.een keer per dag 8.een paar keer per dag 9.vaak op een dag

1	Yammer chat	1	2	3	4	5	6	7	8	9
2	Newsfeed raadpleggen	1	2	3	4	5	6	7	8	9
3	Kennis delen binnen een of meerderde groepen	1	2	3	4	5	6	7	8	9
4	Kennis vergaren binnen een of meerderde groepen	1	2	3	4	5	6	7	8	9
5	Groepen aanmaken	1	2	3	4	5	6	7	8	9
6	Collega's uitnodigen voor groupen	1	2	3	4	5	6	7	8	9
7	Uitnodigingen voor groepen accepteren	1	2	3	4	5	6	7	8	9

Er volgen nu een aantal uitspraken die gaan over gevoelens van **verbondenheid** die u mogelijk ervaart op het werk. U kunt aangeven in hoeverre de uitspraken uw situatie representeren door het best passende bolletje aan te klikken. Het onderzoek is geheel anoniem, dus deze informatie wordt niet gedeeld met uw leidinggevende(n).

Verbondenheid - pagina 1 van 1

7 puntschaal: helemaal oneens – helemaal eens

1	Ik vind de mensen met wie ik werk erg leuk.	1	2	3	4	5	6	7
2	Ik kan goed overweg met de mensen op het werk.	1	2	3	4	5	6	7
3	Ik ben erg op mezelf als ik aan het werk ben.	1	2	3	4	5	6	7

4.	Ik beschouw de mensen met wie ik werk als mijn vrienden.	1	2	3	4	5	6	7
5	Mensen op het werk geven om mij.	1	2	3	4	5	6	7
6	Er zijn niet veel mensen op het werk waar ik ‘close’ mee ben	1	2	3	4	5	6	7
7	De mensen met wie ik werk lijken mij niet zo te mogen	1	2	3	4	5	6	7
8	Mensen op het werk zijn vriendelijk tegen mij	1	2	3	4	5	6	7

Er volgen nu een aantal uitspraken die gaan over gevoelens van **autonomie** die u mogelijk ervaart op het werk. U kunt aangeven in hoeverre de uitspraken uw situatie representeren door het best passende bolletje aan te klikken. Het onderzoek is geheel anoniem, dus deze informatie wordt niet gedeeld met uw leidinggevende(n).

Autonomie - pagina 1 van 1

7 puntschaal: helemaal oneens – helemaal eens

1	Ik heb het gevoel dat ik veel input heb in het beslissen hoe mijn werk gedaan wordt.	1	2	3	4	5	6	7
2	Ik voel dat er op het werk druk op mij gelegd wordt	1	2	3	4	5	6	7
3	Ik heb de vrijheid om mijn ideeën en meningen over het werk te uiten	1	2	3	4	5	6	7

4	Als ik aan het werk ben, moet ik doen wat mij gezegd wordt	1	2	3	4	5	6	7
5	Er wordt op het werk rekening gehouden met mijn gevoelens.	1	2	3	4	5	6	7
6	Ik heb het gevoel dat ik gewoon mijzelf kan zijn op het werk.	1	2	3	4	5	6	7
7	Er zijn niet veel mogelijkheden voor mij om voor mijzelf te bepalen hoe ik te werk ga	1	2	3	4	5	6	7

Er volgen nu een aantal uitspraken die gaan over gevoelens van **competentie** die u mogelijk ervaart op het werk. U kunt aangeven in hoeverre de uitspraken uw situatie representeren door het best passende bolletje aan te klikken. Het onderzoek is geheel anoniem, dus deze informatie wordt niet gedeeld met uw leidinggevende(n).

Competentie - pagina 1 van 1

7 puntschaal: helemaal oneens – helemaal eens

1	Ik voel mij niet competent als ik aan het werk ben	1	2	3	4	5	6	7
2	Mensen op het werk vertellen mij dat ik goed ben in wat ik doe.	1	2	3	4	5	6	7

3	Ik heb interessante nieuwe vaardigheden tijdens mijn werk kunnen leren.	1	2	3	4	5	6	7
4	De meeste dagen heb ik een gevoel van voldoening door het werken.	1	2	3	4	5	6	7
5	Tijdens mijn werk krijg ik niet veel kans om te laten zien hoe capabel ik ben	1	2	3	4	5	6	7
6	Als ik aan het werk ben voel ik mij vaak niet capabel.	1	2	3	4	5	6	7

Er volgen nu een aantal uitspraken die gaan over **de mate waarin u zich betrokken voelt bij de Rabobank**. U kunt aangeven in hoeverre de uitspraken uw situatie representeren door het best passende bolletje aan te klikken. Het onderzoek is geheel anoniem, dus deze informatie wordt niet gedeeld met uw leidinggevende(n).

Betrokkenheid - pagina 1 van 2

7 puntschaal: helemaal oneens – helemaal eens

1	Ik ben bereid erg veel moeite te stoppen in het succesvol maken van deze organisatie, meer dan van mij verwacht wordt	1	2	3	4	5	6	7
2.	Ik praat over deze organisatie tegen mijn vrienden als een geweldige organisatie om voor te werken.	1	2	3	4	5	6	7
3	Ik voel weinig loyaliteit tegenover deze organisatie.	1	2	3	4	5	6	7

4	Ik zou bijna iedere functie accepteren om maar voor deze organisatie te blijven werken.	1	2	3	4	5	6	7
5	Ik vind dat mijn waarden sterk overeenkomen met de waarden van de organisatie.	1	2	3	4	5	6	7
6	Ik ben trots om anderen te vertellen dat ik bij deze organisatie werk.	1	2	3	4	5	6	7
7	Ik zou even goed voor een andere organisatie kunnen werken, zo lang de functie enigszins hetzelfde is	1	2	3	4	5	6	7

Er volgen nu een aantal uitspraken die gaan over **de mate waarin u zich betrokken voelt met de Rabobank**. U kunt aangeven in hoeverre de uitspraken uw situatie representeren door het best passende bolletje aan te klikken. Het onderzoek is geheel anoniem, dus deze informatie wordt niet gedeeld met uw leidinggevende(n).

Betrokkenheid - pagina 2 van 2

1	Deze organisatie inspireert het beste in mijzelf qua prestaties in mijn baan	1	2	3	4	5	6	7
2	De huidige situatie hoeft maar heel weinig te veranderen om mij aan te zetten tot het verlaten van deze organisatie	1	2	3	4	5	6	7

3	Ik ben erg blij dat ik deze organisatie heb gekozen ten opzichte van andere organisaties die ik overwoog toen ik hier begon.	1	2	3	4	5	6	7
4	Er valt niet heel veel te verdienen door bij deze organisatie te blijven voor onbepaalde tijd.	1	2	3	4	5	6	7
5	Ik vind het vaak moeilijk om het eens te zijn met het organisatiebeleid dat betrekking heeft op de werknemers	1	2	3	4	5	6	7
6	Ik vind het lot van deze organisatie erg belangrijk.	1	2	3	4	5	6	7
7	Van alle mogelijke organisaties is dit de beste voor mij om voor te werken.	1	2	3	4	5	6	7
8	Het besluit om voor deze organisatie te werken was zeker een fout van mij.	1	2	3	4	5	6	7

Tot slot volgen er nog een aantal algemene vragen. Deze gegevens kunt u anoniem invullen en worden uitsluitend voor dit onderzoek gebruikt.

Wat is uw geslacht? O man O vrouw

Wat is uw leeftijd? _____ jaar

Wat is uw hoogst afgeronde opleiding? O Basisschool

O LTS

O MTS

O HTS

O Middelbare school VMBO

O Middelbare school HAVO

O Middelbare school VWO

O MBO

O HBO

O Universitair

(Bij welke vestiging bent u werksam?) _____

Bedankt voor uw medewerking!

(2) Verklaring geen fraude en plagiaat

Print en onderteken dit *Verklaring geen fraude en plagiaat* formulier en voeg dit formulier als laatste bijlage toe aan de eindversie van de bachelorscriptie die in papieren versie wordt ingeleverd bij de eerste begeleider.

Ondergetekende
[Voornaam, achternaam en studentnummer],

.Anika Spring, s4219090

Bachelorstudent Communicatie- en Informatiewetenschappen aan de Letterenfaculteit van de Radboud Universiteit Nijmegen, verklaart met ondertekening van dit formulier het volgende:

a. Ik verklaar hiermee dat ik kennis heb genomen van de facultaire handleiding (www.ru.nl/stip/regels-richtlijnen/fraude-plagiaat), en van artikel 16 “Fraude en plagiaat” in de Onderwijs- en Examenregeling voor de BA-opleiding Communicatie- en Informatiewetenschappen.

b. Ik verklaar tevens dat ik alleen teksten heb ingeleverd die ik in eigen woorden geschreven heb en dat ik daarin de regels heb toegepast van het citeren, parafraseren en verwijzen volgens het Vademecum Rapporteren.

c. Ik verklaar hiermee ook dat ik geen teksten heb ingeleverd die ik reeds ingeleverd heb in het kader van de tentaminering van een ander examenonderdeel van deze of een andere opleiding zonder uitdrukkelijke toestemming van mijn scriptiebegeleider.

d. Ik verklaar dat ik de onderzoeksdata, of mijn onderdeel daarvan, die zijn beschreven in het BA-werkstuk daadwerkelijk empirisch heb verkregen en op een wetenschappelijk verantwoordelijke manier heb verwerkt.

Plaats + datum

Handtekening A. Spring