

**WORLD ACADEMY OF RESEARCHERS, EDUCATORS AND SCHOLARS IN  
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(In association with the Academy of World Finance, Banking, Management and IT)  
Conference in Cape Town, South Africa, 22-25 July 2013**

**KNOWLEDGE CREATION AND SHARING IN AN ONLINE STAFF DISCUSSION  
FORUM**

*Abstract*

Although discussion forums as social networks are common in learning organizations, limited research has been conducted to date. This study set out to do a content analysis of an online staff discussion forum at an educational institution, specifically the recurrence of significant topics or threads, individual staff's participation and perceived barriers from a knowledge management perspective during two time frames. This forum was selected because it was argued that it is devoted to special interest topics that may implicitly contain information and insights on knowledge creation and sharing, creating an ideal opportunity to make recommendations for the management of knowledge therein.

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*Text-based discussion forums bring about a “virtual sociability” that is defined as a pragmatic dimension producing real-time applied knowledge .... And emphasise the collective memory by their multiple embedded values (e.g. social, informational, intellectual, political, technological) inherent in “democratic network lives”. (Bernier & Bowen, 2004:120)*

## **INTRODUCTION**

One phenomenon that has reaped the most success on the Internet according to Flavian and Guinaliu (2005:2) is the analysis of virtual communities, which grew exponentially through the World Wide Web (WWW) and electronic mail, staff discussion forums, chat rooms or instant message systems. These virtual communities refer to personal relationships in cyberspace where computer-mediated space integrates/facilitates knowledge creation and sharing and is characterized by groups of people with more or less specific, complex and common goals, value systems, norms, rules and a sense of identity which they want to enhance through electronic communication (Barker, 2006a:132). Cyberspace, in which different kinds of virtual communities are created, can be seen as *a culture of simulation, signification and communication as opposed to realism, representation and objective participation* (Venkatesh 1998:667). Five main types of virtual communities are prevalent in the organization, namely: business-to-business (B2B), business-to-consumer (B2C), business-to-employee (B2E), employee-to-employee (E2E) and consumer-to-consumer (C2C). The focus of this paper is on E2E communication, specifically an online staff discussion forum which adopts a many-to-many relationship.

It is argued that the main research problem is that little attempts have been made to study knowledge creation and sharing in online staff discussion forums. This article attempts to fill this gap through an initial conceptualization of the theoretical constructs which can be used to look at knowledge creation and sharing in virtual communities based on existing theories and understandings of the concept to contribute to a better academic understanding of the relevance and importance of this theory in practice.

## **THEORETICAL UNDERPINNING**

With the introduction of the Internet, organizations have been faced with strange streams of nonsensical characters complete with secret-code-like phrases like www, slash, dot-com and at. This was followed by the emergence of social networking websites and social media connecting millions of complete strangers in real time, which include, inter alia, discussion forums, blogs, MySpace, Facebook, YouTube, Vimeo (video sharing), Flickr (photo-sharing), online message boards, Twitter, LinkedIn and #tag which necessitates organizations to compel with the increasing demand to utilize the *reach* and *richness* of this new media. In spite of the reality of the new media, limited research has been conducted on the use of these networks or presented results which have been obtained or integrated on findings and theory-based methodologies. Most studies on virtual communities are devoted to the evaluation of behaviour and usage thereof drawing from methodology of the social sciences, particularly social anthropology and ethnography, also referred to as electronic or virtual ethnography, as well as the Technology Acceptance Model (Davis, Bagozzi and Warshaw 1989; Camarero, Rodriquez and Jose 2012:568). The main aim of this paper is to address the research problem that a lack of research exists on knowledge creation and sharing from a knowledge management perspective on virtual communities, specifically an

online staff discussion forum. This perspective was selected because it defines the notion of knowledge creation and sharing as a feature of knowledge-based organizations where *knowledge management* is defined as the generation, storing, representation and sharing of knowledge to the benefit of the organization and its individuals (Barker 2006b).

Most knowledge management theorists perceive the organization as a collective of intellectual resources, implicating knowledge in various forms (Bell 2001:49), with discussions focusing on a technical component (data gathering, mining and integration, the dissemination of data and direct, real-time interactions to share information), a human or organizational component (which includes the management of four interrelated elements: choice, adoption and implementation of procedures/methods to link individuals and groups; formal and informal informational settings where interaction occurs; organizational practices to complete tasks; and the organizational context in which interactions and work happen) and a knowledge component (Barker 2006b:134). According to Van der Walt (in Angelopulo & Barker 2013) successful organizations are characterized by the constant creation of new knowledge and the fast dissemination and representation thereof and the organization’s commitment to and understanding of individuals in the organization. The main thrusts of the research were based on these theoretical constructs of virtual communities and the key features of the knowledge management perspective, but specifically set out to measure only three aspects, namely the recurrence of significant topics or threads, individual staff’s participation and perceived barriers from a knowledge management perspective based on a wide range of notable elements identifiable varying from the whole concept of interactivity/communication, technological aspects and the human component (Hagel and Armstrong 1997, Barnatt 1998, Szmigin, Canning and Reppel 2005, Barker 2006b and various others) indicated in Table 1. Only those subcriteria and elements prevalent in the online staff discussion forum during the two time frames will be highlighted in the results of this paper.

**Table 1: Theoretical constructs of knowledge management**

Component	Sub-criteria	Elements
<b>Technical</b>	Infra-structure	<ul style="list-style-type: none"> <li>• <i>Aesthetics/graphical</i> control (images, graphics, animations etc that is visible in the VC and presents the first impression of like or dislike of the VC)</li> <li>• <i>Navigation, speed and reliability</i> (design of the technology, as well as the hardware/software and technical support to those performing their tasks)</li> <li>• <i>Accessibility</i> (design of the user interface)</li> <li>• <i>Capture and storing</i> (of relevant information about employees, consumers, competitors, suppliers, institutional and organizational regulations through centralized customization of information)</li> </ul>
	Culture	<ul style="list-style-type: none"> <li>• <i>Consciousness of kind</i> which refers to the feeling that binds individuals to the other community members and community brand and is determined by legitimization (to distinguish between true and false members in support of the brand) and opposition to other brands (where the brand community is defined in comparison with other brands).</li> <li>• <i>Shared artifacts, language, rituals and traditions</i> which are processed</li> </ul>

		<p>by community members to reproduce and transmit meaning in and out of the community and which perpetuate the community's history, culture and consciousness.</p> <ul style="list-style-type: none"> <li>• <i>Moral responsibility</i> which reflects the feelings that create moral commitment, duty or obligation among community members and encourages conjoint behaviors and strong group cohesion.</li> <li>• <i>Customer focus</i> refers to whether the information is directed to the needs of the specific community members.</li> <li>• <i>Reliability</i> of the information communicated is important to ensure that it is perceived as valid and in line with expectations.</li> <li>• <i>Personal relationships</i> refer to the whether the system allows for relationship-building between members and the group.</li> </ul>
	Interac- tivity	<ul style="list-style-type: none"> <li>• <i>Flexibility and ease of use and participation</i> which puts emphasis on the adaptation of and accessibility to services and products.</li> <li>• <i>Speed and reliability</i> focuses on the design of the technology – the more sophisticated the technology is, the more possibilities it will offer.</li> <li>• <i>Designed interface</i> to allow for shared interest, interaction/involvement, two-way communication and dialogue between the community members.</li> </ul>
<b>Know- ledge</b>	Sociali- zation	Socialization is when synthesized knowledge is <i>generated</i> through shared experiences, shared mental models and technical skills to connect people through tacit knowledge. This allows for the creation of new knowledge and detainment of relevant knowledge in the system.
	Externa- lization	Externalization is where tacit knowledge is made explicit to ensure that conceptual knowledge <i>development</i> takes place and is made possible through knowledge articulation and knowledge of experts. This allows for a direct flow of information and knowledge between the different categories of VCs, including the organization, its employees, consumers and other stakeholders. The information is communicated by means of any form of language and dialogue.
	Combi- nation	Combination refers to the process where explicit knowledge is transformed through the integration and categorization of knowledge using a systemizing process and data mining and then <i>transferred</i> to create value through the innovative communication of knowledge.
	Interna- lization	Internalization is where explicit knowledge is made tacit and then <i>used</i> which completes the knowledge creation and sharing process
<b>Human</b>	Needs driven	<ul style="list-style-type: none"> <li>• <i>Transaction</i> which is used for the facilitation of the buying and selling process through information delivery.</li> <li>• <i>Interest</i> refers to interpersonal communication where participants interact intensively with each other on specific topics and attract new participants.</li> <li>• <i>Fantasies</i> allow participants to create and share new stories, personalities, experiences and environments through interpersonal interactions and social experimentation.</li> <li>• <i>Relationship building</i> is created through the sharing of certain life</li> </ul>

		<p>experiences and bringing together of members.</p> <ul style="list-style-type: none"> <li>• <i>Shared interface</i>, also referred to as “piggyback”, is when VCs opt to amalgamate online with other providers to offer a wider range of information, thereby reducing overheads and obtaining increased competitiveness. This strategic alliance capitalizes on the member’s interest.</li> <li>• <i>Feedback</i> should be provided to members to encourage knowledge sharing and to reinforce active learning in VCs. This feedback can be on each individual’s contribution to the group processes in relation to those of the group as a whole as an objective measure, thereby increasing commitment of each member to the processes, discussions, problem-solving tasks and deliberations in the group.</li> </ul>
	Trust / commitment	<ul style="list-style-type: none"> <li>• <i>Loyalty or e-loyalty</i> which is indicated through the combination of repeat purchase behavior, as well as social bonding that develops between parties as a result of the interactive and repetitive nature of exchange in such relationships.</li> <li>• <i>Emotional values</i> of the member which refers to explanations of decisions.</li> <li>• <i>Strengthened community feelings</i> which will depend on the value the individual assign to their membership of the VC. The stronger the feeling, the more stable the community will be.</li> </ul>
	Online relationships	<ul style="list-style-type: none"> <li>• <i>Involvement</i> of participants in the communication that takes place.</li> <li>• <i>Relationship bonds</i> which are formed when repeated exchanges lead to positive judgments on the behavior of the other party and on the value to continue with the relationship which results in economic and social bonds.</li> <li>• <i>Exchanges</i> of information, trading and socially, between the community members.</li> <li>• <i>Personalization</i> of the communication that takes place is important and occurs when the consumer is involved and has a bond with the community.</li> <li>• <i>Rewards/gratification</i> is when the consumer perceives the relationship as having an expected and received value of the interaction.</li> <li>• <i>Expertise/know-how</i> of those who create and share knowledge is important and suggest the involvement of other members of the community to participate and learn from the experience of others.</li> </ul>

## METHODOLOGY

The study draws entirely from a qualitative research design in the form of a case study. Data collection was based on a content analysis of an online staff discussion forum of an academic institution selected through random sampling which represents an example of E2E communication and illustrated the many-to-many communication model made possible by the Internet, was active and involved reasonable rates of discussion traffic and interactive communication between the members of the community (in this case employees of the academic

institution). *Content analysis* is a systematic method to analyze the content and treatment of communication resulting in objective information (Reinard 1998:180) and is according to Babbie (2007:320) ideal to study communication by answering the classical communication research question of *who says what, to whom, why, how and with what effect?*

The six criteria for performing content analysis proposed by Reinard (1998:181-183) have been used to ensure a sound content analysis, namely: *define and limit the communication population* where the population sampled was defined narrowly enough to permit the gathering of manageable types of information and which could be used to answer the research question, in this case an online staff discussion forum of one academic institution; *coding units and classification systems* were used in that categories to count communication forms were chosen to exhaust all possibilities, be mutually exclusive and using the coding role of placing objects into categories, which were in this case a thematic unit (Krippendorf 1980); *sampling messages* from the population large enough to permit meaningful conclusions which was in this case sampled through a multistage approach selected sequentially during specified time frames; *code message content* of general or specific themes or measures to indicate that categories were used consistently to ensure reliability; *analyze the data* by reporting straightforward descriptive statistics; and *interpret results* to address the research problem.

Analysis of the forums was conducted separately for each time frame and included overall activity (posts and views) for the indicated time periods. The same staff discussion forum was monitored during two time frames, firstly from 5 May 2005 until 23 March 2007 and secondly from 22 October 2009 to 22 February 2013 on a 24/7 basis based on new threads (initial post) and answer queries in threads started by others (reply post). Forum threads were analyzed through a qualitative research methodology and comparisons were made between the two time frames, one conducted in 2007 and one in 2013 to indicate similarities, changes and/or interventions, specifically in terms of the recurrence of significant topics or threads, individual staff’s participation and perceived barriers on the knowledge creation and sharing from a knowledge management perspective. The monitoring of the online staff discussion forum was done through non-participative observation, also referred to as “lurking” which connotes a way to learn the rules or norms of the community in virtual worlds, in other words through “lurking” in the background the observer get to understand the language and subject matter before making a contribution or watch and read the comments made in the forum without getting actively involved (Evans, Wedande & Van’t Hul 2001:154).

## DATA ANALYSIS AND RESULTS

For the indicated time frames (TF1: 5 May 2005 until 23 March 2007 and TF2: 22 October 2009 until 22 February 2013), the following results are notable and presented in Table 2.

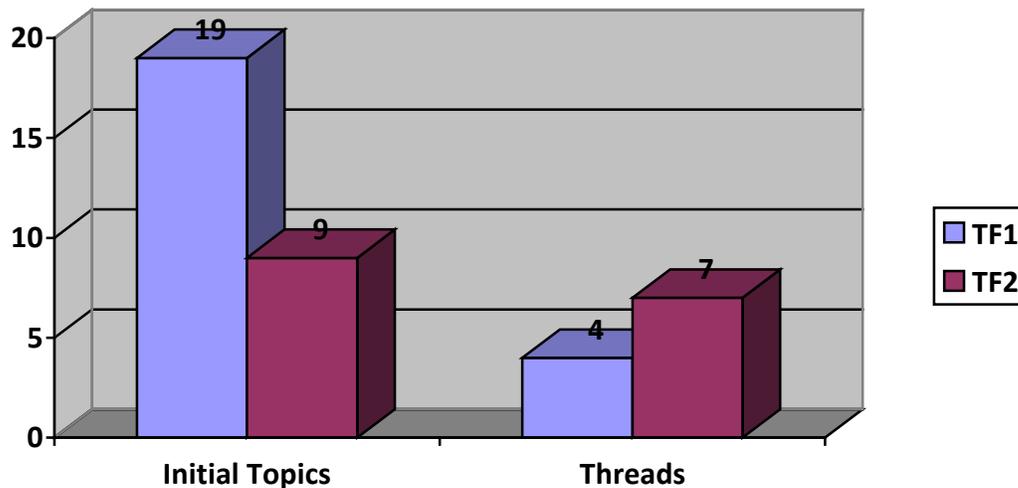
**Table 2: Overall activity of the online staff discussion forum for the two time frames**

	<b>Time frame 1 (TF1)</b>	<b>Time frame 2 (TF2)</b>
<b>Topics (initial posts)</b>	19	9
<b>Replies (reply posts)</b>	65	15
<b>Views</b>	451	1942
<b>Users</b>	Not available	8019
<b>Threads</b>	4	7

Although it seems like TF2 presented more activities than TF1, it is important to note that active participation in TF1 was much higher than in TF2 where participants mostly viewed and not replied to topics. Another interesting observation is that during TF2, 8019 users were registered, but only 1942 viewed the topics and threads in the forum and only 15 were actively engaged. Furthermore, more participants viewed the threads during TF2 (1942) than during TF1 (891). Each of these aspects are subsequently evaluated in terms of the proposed theoretical constructs.

### RECURRENCE OF SIGNIFICANT TOPICS OR THREADS

The results are indicated in Figure 1.



**Figure 1: The results on the recurrence of topics and threads**

The results of the recurrence of significant threads suggest that during TF1 more initial topics were covered (19) than during TF 2 (9), but that more threads were evident during TF2 (7) compared to TF1 (4). Table 3 presents the details on the significant topics and threads.

**Table 3: Initial topics and threads during TF1 and TF2**

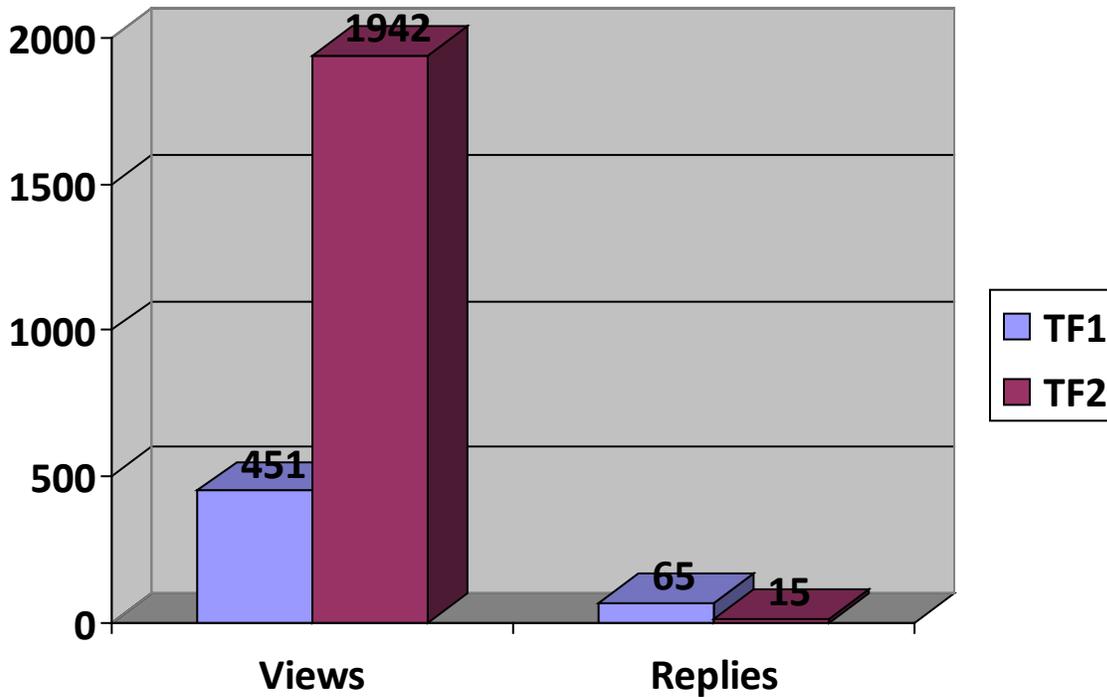
Time frame 1 (TF1)		Time frame 2 (TF2)	
Threads	Initial Topics	Threads	Initial Topics
Human Resources	Telephone directories	Human Resources	Performance bonuses Retirement fund
	Salary disputes		
	Post retirement funds		
	Retrenchment programmes		
	Medical aids		
	Violation of service contracts		
	Accumulated leave matters		

<b>Academic issues</b>	Repeating subjects passed for students	<b>Academic issues</b>	Lecture by astronauts
	Examination and mark summary arrangements		
<b>Building matters</b>	Elevators	<b>Institutional</b>	Health of institution
	Problems with toilets		New website
	Roads		Welcome to phpBB3
	Restaurant/cafeteria complaints		Management's attitude
			Access to online library databases
<b>General topics</b>	Loosing brilliant people	<b>General</b>	Switch your car on/off
	Academia in the world		
	Quickcam		
	Unions		
	Opening of boots at security		
	Broken buses		

From the above it is clear that although most of the threads remained the same in both time frames, institutional issues became prevalent in TF2, specifically in terms of online aspects and that no topics were raised on building matters. The topics also changed which can be attributed to changes made by the institution because of a merger which took place during 2007 when many of the aspects were communicated to staff proactively. This might also explain the emphasis on institutional topics during TF 2.

### **INDIVIDUAL STAFF'S PARTICIPATION**

Figure 3 presents the individual staff participation in terms of views and replies as presented in Table 1.

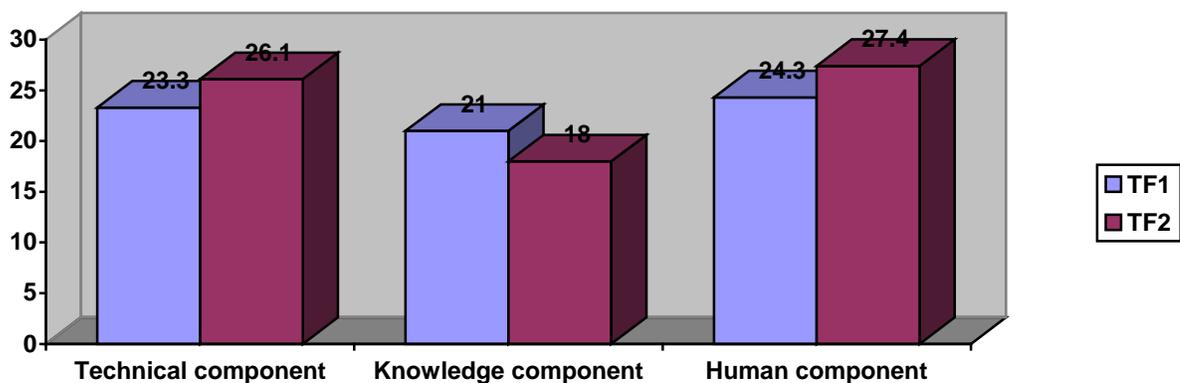


**Figure 3: Views and replies from staff during each time frame**

Once again it is important to note that during TF2 8019 users were registered, but only 1942 viewed the topics/threads and 15 actively participated in the forum. Unfortunately the data collected during TF1 did not indicate the number of users registered, but that 451 viewed the topics/threads which were considerably lower than TF2, but that 65 members actively participated which are considerably higher than TF2.

### **PERCEIVED BARRIERS FROM A KNOWLEDGE MANAGEMENT PERSPECTIVE**

The results are indicated in Figure 4.



**Figure 4: The results of evaluation of the three components of knowledge management in the online staff discussion forum**

Figure 4 shows that the online chat room scored the highest in terms of the **human component** during both time frames (TF1=24.3% and TF2=27.4%), mainly because of the high scores in terms of the elements *community feelings*, *social bonding* and *online relationship bonds* formed between the regular users of the online chat room during both time frames. Most of the topics in both time frames were *needs driven*, especially in terms of *interest* in specific topics which resulted in more debate during TF1 than TF2. During TF1 interaction was intensively on specific topics and attracted new participants through sharing of own experiences to bring together other members. Examples include the debates by members on the following topics and comments: *we are losing brilliant people* and replies on it that *we have the best academia in the world and call it ignorance or incompetence, it is up to you*, resulting in *feedback* provided to members to encourage knowledge sharing and to reinforce a positive image of the institution through objectivity and deliberations in the group. During TF2, a high level of *trust and commitment* was evident, especially in terms of human resource topics. One example is the following posting by one member *Performance bonus for all?* which only resulted in three replies, but attracted new members through 431 views, the highest views on all topics. Another example is the posting by a member on the retirement: *Have you checked the figures on your annual statement that we received recently? My pensionable salary is indicated on this statement as only 47% of my total package instead of the 70% prescribed in the Conditions of Service.* Two replies were made by other members: *Maybe it is best to take it up with the union management – they are ‘legally’ back on campus now;* and *Have you received any answer from the fund administrators?* This topic attracted 279 views by other members. Although it can be argued that this is to an extent indicative of the *involvement* of participants in the communication that takes place in the forum, it focuses more on the *exchange of information* and *personalization of the communication*.

In terms of the **knowledge component**, the score for TF1 was 23.3%. During TF1 more debate took place and members tended to *generate and share* information through debate and the *internalization* of information by using the shared information which completed the knowledge creation and sharing process. One example is that the sharing of information on *illegal salary differences* where 19 members replied and debated the topic at length and came to reasonable conclusions accepted by all members in the forum. This debate was viewed 192 times. During TF2, the score decreased to 18%, mainly because less *knowledge was generated* through shared experiences, little conceptual knowledge *development* took place to allow for *transferring* of knowledge and the explicit knowledge was not really made tacit to be *used*, but rather stating how they feel about certain aspects than to stimulate debates. For example, one participant merely stated: *It took me (a daily library website user) about 2 minutes to locate ‘library link’ which is frustrating* whereas another participant stated on another link that *The new website is very user friendly. Congratulations to the IT staff.* In both cases no replies were presented, but the first comment received 78 views and the second comment 109 views.

The **technical component** scored higher in TF2 (26.1%) than in TF1 (23.3%). During both time frames a high level of *interactivity* was evident between members, the *ease of use* of the infrastructure and *accessibility* to the online chat room rated high, but in TF2 a higher score was allocated to the *capturing and storing* of information because links were created to lead members to information stored in an online databases, previous posts and centralized information with better *navigation speed and reliability* in the design of the forum to increase interaction and two-way communication between the members. A few examples include the following: The topic that created the most replies during TF2 was *Welcome to phpBB3* which was in response to a posting

made by one participant who suggested *that students who have problems with not receiving study material to contact me directly* on which the Dean of Students replied *I will investigate this matter with the view to establish if a tool can be developed to enable students to track progression of assessment of assignments* (which can be seen one effort of expert intervention to ensure knowledge management on this topic) which resulted in the installation of this system. The posting by the responsible person that *This is an example post in your phpBB3 installation. Everything seems to be working. You may delete this post if you like and continue to set up your board ....*” resulted only in five replies and 285 views. On the issue of performance bonuses in TF2 when the participant asked *Does anyone know if there is a performance bonus for ALL in the pipeline*, only one active member of the forum replied *You had to score 3.1 or higher in your IPMS reviews for the last year*, but this was viewed by 431 participants. During TF1, the issue of salary differences/illegal salaries resulted in 18 replies, the most active topic, followed by dissatisfaction with the cafeterias/restaurants which resulted in 16 active replies debating the issue which is indicative of the fact that more *active participation* took place during TF1 than TF2. The second highest replies during TF2 was on the topic *What happened to a healthy institution* which resulted in only three replies like *We need to emphasize that the institution should bring back our GYM, The gym is a must and perhaps some fruits instead of cookies*, and a response like *It is the best comment ever, we don't wanna be round figure*, but 159 views. During both time frames not much has been done in terms of the *aesthetics and graphical control* of the forum and although links were prevalent, especially during TF2 to the online library and other links, no images, graphics, animations or any other props were used to create a good first impression of the forum. One pertinent element which became clear in both time frames was the *personal relationships* which were formed between the members, especially in terms of aspects like salary disputes and institutional issues.

The most prevalent or pertinent aspect that was noticed is the fact that very limited knowledge management has been applied in either of the time frames, it is that no ‘expert’ or ‘knowledgeable person’ has intervened or replied to any of the comments made on the online staff discussion forum. This can arguably be analyzed from two sides: firstly, that the members of the forum were encouraged to communicate openly and freely, especially because no anonymity was allowed (members logged in with their email addresses); and secondly that staff was not aware of the forum and/or it was not seen as a forum for important institutional issues. For example, one participant indicated during TF2 that *I have landed on this forum by chance – it seems no one knows about it. Maybe advertise and encourage personnel to use it to have their say* with one reply that *Does the top management really value their employees? Look at the notices they put on the Intranet and Staff online.*

Overall, these results suggest that the conceptual theoretical constructs and components proposed could measure the extent to which the online staff discussion forum is used for knowledge creation and sharing and support the importance to manage knowledge strategically.

## **DISCUSSION**

Given the dichotomous nature of some measures, the estimate of the weightings of each component, and the moderate sample use, this approach might not be suitable for cases in which variables do not fit into these notable theoretical constructs and components of knowledge management. However, the level of the measurements in both time frames are reflective of this

specific online staff discussion forum as it was determined through descriptive measures used consistently during each time frame to enhance the reliability of the results. Because each construct and component was analyzed, it can be argued that the reflections on each construct were consistent in both time frames. Findings of particular interest are that the knowledge creation and sharing of information in this forum presented positive and negative indications. For example, the participants showed a greater interactive use of this forum during the first time frame than during the second time frame, which might be attributed to the fact that new online social media became more pertinent after 2007 and that this subjection to other idiosyncratic factors where more interactive, participative forums were introduced (for example Facebook, Twitter, weekly online newsletters addressing many of the topics proactively like salary disputes, problems with elevators, staff issues, etc.) which might have affected the knowledge, attitudes and perceptions about the use of this forum and its effectiveness in knowledge creation and sharing regarding pertinent issues.

The findings of this study indicate that consistent with the knowledge management theory, members' participation in these forums may be viewed as a gradual process in which staff decide whether the knowledge creation and sharing in the forum will be to their benefit or not. It can hence be argued that central to the success of measuring this process is the participation of all members of the forum to determine the creation and sharing of knowledge which is ultimately derived from the notable constructs and components of the knowledge management perspective – the technical component which is mainly determined through technical infrastructure, knowledge component which allows for knowledge creation and sharing, and the human component which is needs-driven and derived from active participation and interaction to build trust/commitment and thereby creating or enhancing online relationships. This in quit essence underlies the importance of forums which give members the opportunity to know one another, interrelate, social bonding, improve attitudes and encourage discussion and interaction, but at the same time to realize the importance of the use of other tools to allow for additions like images, hyperlinks, quick access to information, networking facilities, to name a few.

It is also important to realize that new technologies, increasingly sophisticated employees and innovative knowledge creation and sharing characterize the competitive online social environment where the sustainability of online staff discussion forums is entirely paradoxical and an important issue with various options to consider in future.

## **LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH**

In spite of the advantages of content analysis in terms of cost effectiveness, the allowance for correction of errors and that processes can be studied over a long time, and that it has not an effect on the subject being studies, the main disadvantages are the problem of reliability and validity (Babbie 2007:330). According to some researchers like Wimmer and Dominick (1997) and Du Plooy (2001) the main limitations of this approach is that although it is useful in describing major communication trends, it is restricted to descriptions and do not allow for cause-and-effect conclusions which limits the generalisability of the results. However, it is argued that this study provides a useful benchmark to measure knowledge creation and sharing in an online staff discussion forum in an institution which produced organization-specific information on one E2E. It is clear that the online staff discussion forum did either serve as a forum to create information

and/or to stimulate and share information on a wide range of topics. Because participant anonymity was not safeguarded, probably hampered the intervention by experts to ensure members participate openly and freely. The results point the way for future research and an interesting extension would be to use the theoretical constructs and components and to conduct the analysis in other online social networks to gauge the impact of these concepts in a wider range of forums. Although some ideas have been presented, additional insights in the participation of online forums could lead to a better understanding of factors that determine knowledge creation and sharing, especially in terms of the influence of other online social networks.

## **CONCLUSION**

Since the main aim of the study was to investigate and compare the knowledge creation and sharing in an online staff discussion forum during two time frames, it is concluded that the notable theoretical constructs and components can be used to determine the recurrence of significant topics or threads, individual staff's participation and perceived barriers from a knowledge management perspective. Given the scarcity of empirical studies to address this issue, it is hoped that this study has improved the insight into online discussion forums and will expand research to new avenues.

In conclusion, it is worth mentioning that the potential impact of the radical changes of social networking tools in the so-called network society and indirectly the need to manage the knowledge creation and sharing in it constructively in future, will become more powerful, will become more pervasive and will compel institutions to offer more innovative solutions to reflect on the relevance of interacting virtually within information knowledge settings.

## **BIBLIOGRAPHY**

Babbie, E. 2007. *The practice of Social Research*. 11<sup>th</sup> Edition. Thomson: Belmont, CA.

Barker, R. 2006(a). Homo sapiens or homo machinus: a knowledge management perspective of virtual communities in cyberspace, *Communicatio*, 32(2):226-240.

Barker, R. 2006(b). The virtual reality of knowledge creation in cyberspace: a knowledge management perspective, *Conference Proceedings, 2<sup>nd</sup> Biennial Conference of the Academy of World Business, Marketing and Management Development*, 2(1):132-142.

Barnatt, C. 1998. VCs and financial services – on-line business potentials and strategic choice, *International Journal of Bank Marketing*, 16(4):161-169.

Bell, H. 2001. *Measuring and managing knowledge*. McGraw-Hill: New York.

Bernier, R. and Bowen, J.P. 2004. Web-based discussion groups at stake: the profile of museum professionals online, *Program: Electronic library and information systems*, 38(2):120-137.

Camarero, C. Rodriguez, J and Jose, R.S. 2012. An exploratory study of online forums as a collaborative learning tool, *Online Information Review*, 136(4):568-586.

- Connor, D. 2003. Social comparison in virtual work environments: an examination of contemporary referent selection, *Journal of Occupational & Organizational Psychology*, 76(1):133-148.
- Davis, F. Bagozzi, R. and Warshaw, P. 1989. User acceptance of computer technology: a comparison of the two theoretical models, *Management Science*, 35(8):982-1003.
- Evans, M. Wedande, G. Ralston, L. and Van 'T Hul, S. 2001. Consumer interaction in the virtual era: some qualitative insights, *Qualitative Market Research: An International Journal*, 4(3):150-159.
- Flavian, C. and Guinaliu, M. 2005. The influence of VCs on distribution strategies in the internet, *International Journal of Retail & Distribution Management*, 33(6):405-425.
- Hagel J. III. and Armstrong, A.G. 1997. *Net gain: expanding markets through VCs*. Harvard Business School Press, Boston, MA.
- Krippendorff, K. 1980. *Content analysis: an introduction to its methodology*. Beverly Hills: Sage.
- Lueg, C. 2001. Information, knowledge and networked minds, *Journal of Knowledge Management*, 5(2):151-160.
- Reinard, R. 1998. 2<sup>nd</sup> Edition. *Introduction to communication research*. McGraw-Hill Companies: Boston, Massachusetts.
- Szmigin, I. Canning, L. and Reppel, A.E. 2005. Online community: enhancing the relationship marketing concept through customer bonding, *International Journal of Service Industry Management*, 16(5):480-496.
- Van der Walt, EA. 2013 In Angelopulo, G.C and Barker, R. 2<sup>nd</sup> Edition. *Integrated Organisational Communication*. Juta: Cape Town.
- Venkatesh, A. 1998. Cybermarketplaces and consumer freedoms and identities, *European Journal of Marketing*, 32(7/8)L664-676).
- Wimmer, R.D. and Dominick, J.R. 1997. *Mass media research: an introduction*. 5<sup>th</sup> Edition. Belmont, CA: Wadsworth.