Knowledge Sharing And Positive Emotions In Virtual Communities: The case of the Healthcare sector

Anjum Razzaque  
Assistant Professor in the Department of Management Information Systems,  
College of Business & Finance,  
Ahlia University, Kingdom of Bahrain  
arazzaque@ahlia.edu.bh

Mahmood Saeed Mustafa Alalawi  
Chairman of Department of Management Information Systems, Assistant Professor of  
Management Information Systems,  
College of Business & Finance,  
Ahlia University, Kingdom of Bahrain  
malalawi@ahlia.edu.bh

ABSTRACT

Previous literature reported the need for virtual community members to share knowledge to create new social capital in a virtual community environment. Also, literature continues to demonstrate the importance of social sharing of emotions, which could improve the positivity of the virtual experience. Furthermore, published theory reported a relationship between positive emotions, of virtual community members to aid better friendships, i.e. positive emotion and their knowledge sharing. However, there is a need to empirically assess the impact of virtual community members’ knowledge sharing on their positive emotions as well as this relationship in reverse direction. There are various practical and theoretical implications indicated in this paper for this bidirectional relationship. Therefore, the sharing of knowledge will bare fruitful outcomes in. a virtual community. In this paper, literature is critiqued to suggest a conceptual framework demonstrating the just-mentioned bidirectional relationship.

Keywords: Social Capital, Positive emotions, Knowledge sharing, Virtual Community, Emotional Intelligence.

Paper type – Literature review

1. INTRODUCTION:

Previous studies have empirically demonstrated that in order for virtual community members to share knowing they require motivation for such a voluntary action. Such motivation was been expressed through the social capital and social cognitive theory from the perspective of a virtual community participant (Chiu, Hsu & Wang, 2006). On the other hand studies have also demonstrated that positive emotions also facilities a personal desire and thus decide to collaborate as well as willing and helpfully respond to a knowledge seeker (Carlson 1997). The way this I possible is that positive emotions positively
influence cognitive based activity performance (Song & Kidd, 2009). Furthermore, Song and Kidd (2009) also described emotions on three assumptions that reflect how learning is achieved in the world of multimedia using positive emotions, i.e. dual channel assumption, limited capacity assumption and active processing assumption. Based on the limitations of these three assumptions, which are further described in detail in this paper, Song and Kidd (2009) also suggested that future research should speculate upon a possible research question to assess if there is a link between positive emotions and multimedia learning. Since people learn when one shares knowledge with another (Suveatwatanakul, 2013), and Chiu, Hsu and Wang (2006) empirically stressed on the importance of social capital and social cognitive activity on virtual community members’ knowledge sharing quality, it is necessary to extend (Chiu’s, Hsu’s and Wang’s (2006) and Suveatwatanakul (2013)’s research to understand the role of emotional intelligence on social capital and social cognition so to understand the role of emotional intelligence on knowledge sharing and hence on learning. The aim of this paper is to shed light through its literature review section the critique of the reviewed literature of the authors of this paper in order to demonstrate the viability of its solution model depicted in Figure 1.

![Figure 1. Role of Positive Emotions on Learning in a virtual community environment](image)

2. LITERATURE REVIEW

First the literature is reviewed to critique an understanding of how knowledge is sharing in order to achieve progressive learning within a virtual community environment within the healthcare sector. This is possible through the social capital of resources. The following critique is described in section 2.1 while section 2.2.

2.1 Learning by sharing knowledge using Social Capital of Resources:

Knowledge management is an interdisciplinary business model, in which knowledge is managed through processes with an aim to manage enterprise information based assets.
These knowledge management processes are depicted in Figure 1 (Wickramasingha, Gupta & Sharma, 2005).

![Knowledge Management Environment Diagram](image)

**Figure 1. The Knowledge Management Environment.**

Knowledge management systems utilize tacit knowledge, i.e. un-structured knowledge, which is in the minds through the experiences achieved by a person and needs to be structured to be processed and explicit knowledge, i.e. within a structured format of good for easy storage and processing) knowledge Bose, 2003. Explicit knowledge is a clinical study based published and accepted medical knowledge, e.g. clinical practice guidelines. Tacit knowledge is healthcare knowledge difficult to express fluently, e.g. Intuition or the healthcare term - 'art of care'. Both types of knowledge are needed in healthcare to assess the situation at hand. This is since explicit knowledge without tacit knowledge is not useful. Tacit knowledge without explicit knowledge is limited. Explicit knowledge has challenges such as quality, completeness while tacit knowledge is hard to readily access, only through narrative communication, demonstration, apprehension or observation through personal network where experience is shared through collaboration within a social environment (Paul, 2006). Knowledge is professional intellect -know-how. Know-why, etc Bose, 2003. Knowledge management needs technologies like infrastructure, Internet, intranet and extranet as a pre-requisite for the knowledge management environment [2]. Hospitals need knowledge management, at this point, to connect knowledge silos between specialists, learn and share experiences, avoid past-mistakes, being departments’ closer, reducing medical errors and exchange procedures and opinions (Wickramasingha, Gupta & Sharma, 2005). As another study mentioned that while knowledge transfer is transmitting and disclosing knowledge, knowledge discovery is in search of new insight from existing knowledge. Knowledge creation, developing new knowledge through constant modification of peoples' knowledge, and knowledge discovery take place in narratives during personal (as per one’s own ability to absorb as per his/her experience) and collective (application through interaction between individuals working together) collaboration (Paul, 2006).
With the rise of e-Health, an electronic peer-to-peer community came about for people with common interests who virtually share experience, ask questions and emotionally support one another. There are thousands healthcare related virtual communities online today. In real life, such networks existed before Internet came about, in work sites, private networks or bulletin boards, etc. On the World Wide Web, a virtual community is an electronic self-support group such as new groups (email messages exchanging), discussion forums or chat rooms - transforming healthcare to e-Health. A virtual community is formed on an electronic media platform on the Internet (computer based communication network) (Eysenbach, Powell, Englesakis, & Rizo, 2004). Virtual communities are Internet-based social bodies where a group of participants passionately discuss for a long enough time hence developing personal relationship on the World Wide Web. Community of practice is also referred to a group of participants who share a common concern, share the sense of their problems as well as passion of their topic. Such a group of people constantly interact and through those interaction they are able to achieve a deeper resource of shared knowledge and expertise (Robertson, 2011). This study highlights some terms stated in other studies in relation with virtual communities. One study developed a measure for sense of a virtual community bases on the sense of a community, i.e. face-to-face. There are a number of differences between the sense of virtual community and the sense of a community. Sense of virtual community is a virtual community feature reflective of the feelings, identity and belonging of participants with a virtual community 4]. Distributed community of practice is a focused virtual community of practice. It is not clear whether distributed communities of practice are a subset of community of practice since business have utilized web-based technologies to boost performance, which does not constitutes development of a virtual community just because a web-based technology was utilized within the business context. E.g. a technological component of distributed community of practice is email - common communication means, online forum, Internet and Intranet web site for employees implying the sense of a community (Robertson, 2011). It should be noted that no negative effects were also reported on healthcare caused by virtual communities. However absence of evidence does not prove non-existence of any negative effects. Future Research should concentrate on qualitative and quantitative research. While qualitative research should shed light on self-help processes of virtual community participants, quantitative research should assess for whom virtual community are effective and how this support can be exploited. This should be based on robust evidence. In addition few studies assessed the effectiveness of a community of practice (Eysenbach, Powell, Englesakis, & Rizo, 2004). With a virtual community, collaborative activities are a fundamental healthcare activity in telemedicine that can positively facility quality and access with lower costs (Paul, 2006).

Furthermore, participation of virtual community members is explainable using the social capital theory and its three dimensions. Such a theory is describable through its three dimensions: structural dimension, relational dimension and cognitive dimension. The structural dimension describes the patterns of the relationships between community members. The relational dimension stresses on describing the strength of relations through the norms of reciprocity, the identification the members create by being part of their community and trust between members. The cognitive dimension describes how
community members are able to communicate through their motivations based on their shared vision and their shared language (Chang & Chuang, 2011).

In this context, collaboration is a jointly venture between two or more participants, on an outcome that would be less possible if conducted alone. Collaboration is in healthcare collective diagnosing and treating patients during patient-care process where jointly knowledge base is also consistently getting built with constantly expanding medical explicit knowledge and tacit knowledge. Collaboration improves decision making. From a knowledge management perspective collaboration exists by communicating and applying both, tacit and explicit knowledge. While healthcare outcome is measurable using quality, cost and its access; telemedicine can positively facility the quality and access within the sense of a lower cost. This economical means is why such networks are increasing in size, is facilitated by information and communication technology to lower the geographical gap. This is referred as telemedicine. Such healthcare based collaborative process involves explicit and tacit knowledge and utilization of such technology is low in the healthcare sector. This study examined collaboration from knowledge management point of view, i.e. transform discover and creation of knowledge from three telemedicine contexts being: tele-consultations, tele-radiology and distance learning. Information and communication technology facilitates collaboration by connecting parties to pursue joint ventures. Even though information and communication technology introduces cost effectiveness and reduces geographical limitations, there are collaboration-based challenges when transferring tacit knowledge since story telling or intuition or emotions is not supported by information and communication technology unlike sharing of elicit knowledge and data (Paul, 2006).

2.2 Positive Emotions within the e-Health sector’s:

Emotion plays a major part in our everyday life. There is a plenty of sites containing articles managing human emotion. In 1870 Larousse defined emotion as the concept of “excitation, disturbance of animal economy” (Mirela & Iulia, 2013). As a rule, speculations, with respect to emotion, try to describe the way that people are designed to act, respond or collaborate; and to understand the physical responses correlated with passionate arousal. Clinicians portray emotion in the form of having three types of fundamental capacities: (1) to shape arrangements and expectations, (2) complete strategies as per agreed or protocol based arrangements; and (3) to conclude a decisive result (Carlson 1997; Power & Dalgleish, 1998). From the design perspective, emotion fills the crevice in the middle of individuals and items; in the momentum inquire about, the individuals are web clients, and the items are considered as websites. Emotion impacts the way that an individual plans to collaborate with a certain item; how they really cooperate with it as well as how they comprehend the consequence of such an association. Subsequently, the information of passionate reaction is an important asset in the field of client experience. It encourages correspondence. The next section focuses on positive emotions, i.e. enjoyment in particular, which are momentary events in a website browsing experience as well as in the healthcare sector. It describes the evaluation of emotion, i.e. specifically satisfaction. It concentrates on web encounters, as well as, patients and examines subjective variables that may apply an impact on client delight or treatment.
Likewise, it talks about fleeting or momentary emotions. It tries to understand the web users' enjoyment and positive treatment experience. It starts with Halvorson's (a web content methodology master) vision on emotion on the web (Wall-E) story.

Kristina Halvorson, in her book: “Content Strategy for the Web”, represents the chaos in the web business, by utilizing the sci-fi motion picture character; the robot ‘Wall-E’. The people left him alongside different robots behind to clean up the waste they (i.e. people) had delivered as the years progressed. Among the machines, just Wall-E survives, and spends his days going around in the heap of garbage, and discovering things to candidly communicate with. Humorously, Kristina Halvorson thinks about the web clients' quest for important data, to the robot's chase in the wreckage for significant articles. Web clients are encountering the comparable issues in their day by day hunt assignment (Halvorson 2010).

The story proceeds with: the people send an alternate robot to scout his more seasoned 'siblings', just to discover every one of them dead. She meets Wall-E and the social communication between them starts. Wall- E begins demonstrating her the lovely things he has found in the heap of garbage. This motion picture footage was contrasted with the social PC collaboration when a man discovers significant data on the web. In addition, web site substance is contrasted with the waste in the film (Halvorson 2010). Can we imagine wall-E as a patient in a hospital? In this case then who would be his nurse?

Lazar et al. (2006) expressed ”Frustration occurs when there is an inhibiting condition, which interferes with or stops the realization of a goal”. The level of dissatisfaction differs, contingent upon the conditions that deliver the baffling knowledge, and persons included (Lazar, Jones et al. 2006). The authors of this paper argue that similar to the just-mentioned case, a client’s dissatisfaction is high when the PC works in a surprising manner, hence bringing about inconvenience towards the client, and therefore preventing him/her from finishing his/her duty. There are various reasons for a client's dissatisfaction: e.g., the sudden failure of an application, an indistinct blunder message, the occurrence of a pop-up commercial, or a confounding interface. All in all, disappointment with technology happens when clients can't attain to their assignment or objective (Lazar, Jones et al. 2006). Undeniably, dissatisfaction is the most reported dissention, by clients who have a negative PC experience. Each PC client has experienced no less than one circumstance that is baffling, for example, the difficulty of a system accident, bringing about the squandering of the most recent hours of work, or possibly discovering trouble in downloading an email connection. Human-PC connection can foresee that dissatisfaction will keep on being a noteworthy response for clients, when a PC or project neglects to achieve a particular task (Bessière, Newhagen et al. 2006). The next section will not look in point of interest at the writing in regards to negative emotion: it fairly centered on the ‘positive’ emotion.

Seligman and Csikszentmihalyi (2000) have contended for a positive approach in what they call the ‘new millennium of psychology’. They have recommended giving careful consideration to human quality, and the advancement of prosperity, as opposed to making plans which are tailored to human shortcoming (Seligman & Csikszentmihalyi, 2000). The concept of flow, as suggested by Mihaly Csikszentmihalyi (1975) could be defined as being `as psychological state in which an individual feels cognitively efficient, motivated, and happy (Csikszentmihalyi 1975). Chen and Wigand et al. (1999) directed a study that
examined web client *optimal flow* experiences. They utilized the idea of stream to test whether some positive parts of web features could be connected to other media; subsequently improving web outline, and enhancing client experience. They dissected the substance of methodology, and the reactions to open-ended surveys by 304 web clients, who saw that they had encountered flow on the web. Of their respondents 81% reported that they had encountered satisfaction. Information retrieval and news gatherings were discovered to be the two principle exercises which produced the emotions of enjoyment. These two exercises specifically were found to rate profoundly regarding intuitiveness and correspondence on the web. To represent, they found that in the movement of web data recovery, the reasons for satisfaction were connected to 'information found', 'discovering new things' and 'tracking information'. Also, 9.8% of respondents reported *enjoyment* on the web: as the action itself of using the web or browsing the web (Chen, Wigand et al. 1999). These discovering offer weights to the key supposition of this paper: that web experience induces changing levels of satisfaction.

Effects of natural occurring and experimentally made negative emotional conditions have long been discussed by researchers (Chesney, et al., 2005). For instance, high hostility and high ambulatory blood pressure were found to be linked on day-to-day activities (Suarez & Blumenthal, 1991). On the other hand, positive health behaviours have been recorded as a result of positive emotions (Chesney, et al., 2005). Volunteers exposed to positive emotional style related to positive health habits. Subjects had better sleep, healthier dietary intake and extra exercise (Cohen, et al., 2003). Also, previous research found that caregivers precise when judging the state of their patients’ emotion. In health care services, positive feelings were found to have the expected result. Positive emotions were found to be the most-powerful and reliable predictors of patient satisfaction (Dube, et al., 1996).

The above examples are sufficient to demonstrate that emotions and particularly positive ones happen in the website world as well as the health care sector. Therefore, web-planners need to give careful consideration to the emotion condition of every client, particularly at the time that the site perusing action happens. Also, caretaker like doctors and nurses need to pay attention to the patients emotions at all time. It is important to stay informed regarding these passionate states, and record them, to increase a superior understanding of patients experience, and provide better treatment. These days, neuron marketing technology uses brain examine gadgets, to output the cerebrum of potential clients, for any sign of a signals; which will be followed up on. Have any web developers considered the handiness of such strategies? This was the guideline inquiry postured by Garret in his workshop (Garrett 2009). Has general physicians considered mind scan to discover brain emotional signal which might discover the positive emotions that enhance treatment! Usually, when there is a *positive* user experience, it is expected that users will return to a website, and will benefit a business, in terms of exposure and revenue. In contrast, a *negative* user experience will raise the overheads, reduce customer loyalty, lose the `word of mouth` in advertising, and destroy the brand identity (Haynes 2002).

Negative emotions, similar to fear, can shut down our ability to function, while positive feelings open us up to possibility, and an expanded capacity to push ahead (Henley, 2011). Joy is an immaculate moment caught when all is only precisely as it ought to be. Gratitude
is a moment of acknowledging somebody has made a special effort for you, or basically feeling overpowered with your heart opening, subsequent to being moved somehow. Serenity is similar to a smooth, loose, or supported form of Joy. Quietness is a serenity that goes beyond a sunny day, when you realize there's nothing you need to do (Fredrickson, 2009; Henley, 2011).

3. DISCUSSION AND CONCLUSION:

It is the view of the authors of this paper, based on the proposed Figure 1, positive emotion is the emotional intelligence planning a huge role when sharing knowledge. This is since inappropriate use of an emotional state, e.g. anger while within a discussion, could lead to undesirable outcomes. What makes it worse is when one is not subconsciously realize the outcomes – referenced from Ali ibn Abu Tablib (Alalawi, 2015). As expressed: “a moment of patients in a moment of anger saves a thousand moments of regret” (Harvin, 2014)

Based on the above argument, it is evident how knowledge sharing, when knowledge is applied, facilitates organizational learning (gefIEO Independant Evaluation Office global environment faculty, 2013). The model of the Figure 1 should be empirically tested since the anticipation in this paper is to propose a critique of literature review so to propose the viability of this theoretical framework. Once the model has been proposed as viable from the point of your of its reliability, then there are positive theoretical implications since further discussions could be harnessed as to how this model could be applicable in the healthcare sector, in addition to every other sector. This model can also reflect practical implications, such that, policies could have room for improvement, especially from the point of view of the improvement of the healthcare sector’s quality assurance of patient satisfaction.

REFERENCES:


