

Factors Influencing Social Knowledge Management in Social Society: A Systematic Literature Review

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ABSTRACT

Knowledge is important now for the development of social society; it is necessary for knowledge management. Knowledge management (KM) aims to support the creation, transfer, and application of knowledge in social societies. This fact illustrates that in the management of social knowledge, the role of social communities is very important and is influenced by factors in the process. With this, this study will look for theories and factors that influence KM social interactions that occur in social societies. The method used is a systematic literature review. The results of this study found theories and factors that influence KM in social societies.

1. Introduction

In the development of organizations and social societies, the need for knowledge becomes the most important [1][2][3]. The need is seen in transactions of knowledge through social ties and organizations that will provide developments within the organization or social community. The importance of acquiring knowledge and combinations as a source of value creation and competitive advantage [1]. Thus knowledge needs to be better managed [4][5]. Knowledge management (KM) aims to support the creation, transfer, and application of knowledge in organizations and social communities [3][6]. Social knowledge management is a management based on KM that involves social relationships [7]. This KM In management, there are two main aspects: one that refers to the management of general and other knowledge, which is particularly included in its social character.

A social character can be seen in social network relationships and knowledge management, to explain how it is acquired, transferred, exchanged, and generating knowledge [5] about the basic social processes and learning of the organization; Knowledge science and technology management, which aims to promote research and development and use of ICT; A holistic knowledge management model, including models not seen in previous models and integrating new subdisciplines [7][8].

Knowledge management that occurs in the social community influenced interaction relationships that occur therein. The interaction that occurs will have the factors that affect an individual to interact. With this in the study wanted to find these factors. This study was conducted by systematic review literature. Therefore, this study tries to define "Theory dan factor influencing social knowledge management of social society?". This research will focus on looking for factors that influence social character within each social networking relationship for knowledge management. Where knowledge management begins making, transferring, making, and producing the knowledge gained in social society.

2. Theoretical foundations

2.1. Knowledge Management

KM is a collection of tools, techniques, and strategies to maintain, analyze, organize, enhance, and share insights and experiences that justify the belief that knowledge is an asset to enhance the capacity of the organization to be able to work more effectively[1][9].

The existence knows knowledge management of Tacit Knowledge and Explicit Knowledge[10], [11]. Tacit Knowledge means the science or experience one gets through a daily activity in doing a field of work. Tacit knowledge will simply disappear if the person concerned does not share his / her knowledge with

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others (transfer knowledge) or is not well documented in hard/soft copy[11]. Explicit Knowledge is more to how the science is well documented, so it can be stored ideally and does not just disappear[11]. Knowledge management model, Nonaka, and Takeuchi are renowned for their SECI (Socialization, Externalization, Combination, and Internalization) methods [11].

2.2. Social Community

The community is a small or large social unit that has similarities that are described as norms, religions, values, or identities. This community is located in a specific geographic region or in cyberspace through a platform. Sometimes the community can be defined as a social bond. It is just as important as their identities, practices, and roles in social institutions such as family, home, work, government, community, or humanity [12].

2.3. Social Knowledge Management

Social Knowledge Management is production management and dissemination of knowledge, research, and socially promoted epistemological models of the class[13]. Knowledge development in society involves the participation of social actors themselves and Trans Discipline (which is not equivalent to interdisciplinarity). The knowledge formed in this environment is the responsibility of the social individual to disseminate that has been facilitated in the exercise of critical thinking (social accessibility of knowledge) and has adequate social outreach for community development [13].

3. Methodology

This study uses a systematic literature review (SLR) approach. SLR is used to identify, evaluate, and interpret all relevant research from research questions, phenomena, and topic areas [14]. SLR is carried out with several processes, including search process, inclusion criteria and exclusion, data extraction, and analysis of findings to answer research questions.

3.1. Search process

The first systematic literature review (SLR) process was carried out by searching for relevant articles and find with research in a reliable, reputable, and up-to-date journal database. The database includes:

1. ACM Digital Library (dl.acm.org)
2. IEEE Xplore Digital Library (http://ieeexplore.ieee.org)
3. JStor (www.jstor.com)
4. Science Direct (www.sciencedirect.com)
5. Emerald Insight (www.emeraldinsight.com)
6. Springer Link (link.springer.com)
7. Taylor and Francis (tandfonline.com)

Search process in this research using the Boolean operator. This search can filter search data better, so search gets priority data. the Boolean operators used are AND and OR. the composition used by keyword is as follows:

1. ('Social' AND 'knowledge 'AND 'Management') OR ('Theory')

2. ('Knowledge' AND 'Management' OR ' Social')
3. ('Knowledge' AND 'Management' OR ' Social Theory')
4. ('Knowledge' AND 'Management' OR ' Social Society')

3.2. Inclusion and exclusion criteria

The search inclusion process has three criteria, namely (1) Founded Study is the process of finding documents based on keywords, (2) Candidate Study is the process of selecting documents based on titles and abstracts that are relevant to the research objectives, (3) Selected Study is the process of filtering documents by reading carefully consider all that is used to answer research questions.

The exclusion criteria process has provisions including determining the time of publication of a paper used so that in this study using a time period before 2001, a complete article identity structure (title, author, journal name, etc.), ensuring the article used is not duplicate and The built SLR can answer the questions in the research consistently.

3.3. Data extraction

The literature search process began in November 2017 by finding 278 article documents from the database, and the search criteria that have been determined are founded studies. The second process found 152 article documents from the screening process of relevant documents based on titles and abstracts as candidate studies. the final process found 39 article documents which through the process of careful reading of the contents of the document as candidate studies and used to answer research questions

Table 1. Number studies in selected sources

Source	founded Studies	Candidate studies	Selected studies
Emerald	60	45	3
IEEE	40	16	6
Jstor	30	17	3
ACM	25	10	3
Science Direct	35	15	5
Taylor and Francis	48	31	9
springer	40	18	10
	278	152	39

4. Results and discussions

4.1. Demographic and trend characteristics

4.1.1. Publishing outlets

From the search process, there is a great deal of research in various conferences and journals. This study found among others: journal Knowledge Management Research & Practice (#5), Hawaii International Conference on System Sciences (#2), International Journal of Information Management (#2), Total Quality Management & Business Excellence (#2), and the other

amounted to 1. The total number of 39 from conference and journal, can be seen in the following table 2

Table 2. Source of publications

Journal/ conference	Journal/conference name	#	%
Journal	Knowledge Management Research & Practice	5	12.82
conference	2011 44th Hawaii International Conference on System Sciences	2	5.13
Journal	International Journal of Information Management	2	5.13
Journal	Total Quality Management & Business Excellence	2	5.13
conference	2010 International Conference on E-Product E-Service and E-Entertainment, ICEEE2010	1	2.56
conference	2014 IEEE Workshop on Advanced Research and Technology in Industry Applications (WARTIA)	1	2.56
conference	Adaptation and Value Creating Collaborative Networks: 12th IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2011	1	2.56
Journal	Advances in Intelligent and Soft Computing	1	2.56
Journal	Computational and Mathematical Organization Theory	1	2.56
Journal	Development in Practice	1	2.56
Journal	Healthcare Knowledge Management SE - 8	1	2.56
Journal	Housing, Care and Support	1	2.56
conference	IFIP Advances in Information and Communication Technology	1	2.56
Journal	Information & Management	1	2.56
Journal	Information Processing and Management	1	2.56
conference	International Conference on Context-Aware Systems and Applications	1	2.56
conference	International Conference on Knowledge Management in Organizations	1	2.56
conference	International Symposium IUKM 2013	1	2.56
Journal	Journal of Business Ethics	1	2.56
Journal	Journal of Information Technology	1	2.56
Journal	Journal of Integrated Care	1	2.56
Journal	Journal of International Business Studies	1	2.56
Journal	Journal of Knowledge Management	1	2.56
conference	Procedia Computer Science	1	2.56

Journal/ conference	Journal/conference name	#	%
conference	Proceeding OSDOC '13 Proceedings of the Workshop on Open Source and Design of Communication	1	2.56
conference	Proceedings of the 2010 International Conference on Information Technology and Scientific Management	1	2.56
conference	Proceedings of the 2012 iConference on - iConference '12	1	2.56
conference	Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS 2008)	1	2.56
conference	Proceedings of The 3rd Multidisciplinary International Social Networks Conference on Social Informatics	1	2.56
Journal	Public Performance and Management Review	1	2.56
Journal	Technology Analysis and Strategic Management	1	2.56
Journal	The Academy of Management Journal	1	2.56
Total source publication		39	

4.1.2. Most productive institutions

The most productive institution is a National Central University, National Central University, Ewha Woman's University with two paper each. An others institution each have one paper. Detail data can be seen in table 3 which in total there are 53 institutions.

Table 3 Source of publications

Institutions	# papers	%
National Central University,	2	3.64
Hebei University of technology Tianjin	2	3.64
Ewha Womans University	2	3.64
Vrije Universiteit Amsterdam	1	1.82
University of Zagreb	1	1.82
University of Westminster,	1	1.82
University of Twente,	1	1.82
University of Turkey,	1	1.82
University of Toronto	1	1.82
University of Science and Technology	1	1.82
University Of Salford	1	1.82
University of Melbourne	1	1.82
University of Manchester	1	1.82
University of Las Palmas de Gran Canaria	1	1.82
University of Groningen	1	1.82
University of Caxias do Sul	1	1.82
University of Auckland	1	1.82

Institutions	# papers	%
Universiti Teknologi Malaysia	1	1.82
Universiti Teknologi Malaysia	1	1.82
universitas liverpool	1	1.82
Tilburg University,	1	1.82
The Hong Kong Polytechnic University	1	1.82
Technical University of Bari,	1	1.82
Royal Tropical Institute,	1	1.82
Renmin University of China,	1	1.82
North Carolina State University ,	1	1.82
National University of Singapore,	1	1.82
National Taiwan Ocean University	1	1.82
National Sun Yat-sen University,	1	1.82
National Quemoy University,	1	1.82
National Kaohsiung First University of Science of Technology	1	1.82
Nanyang Technological University,	1	1.82
Jiangsu University of Science and Technology	1	1.82
Jiangsu University of Science and Technology	1	1.82
Instituto Universitario de Lisboa	1	1.82
Hong Kong Baptist University	1	1.82
FCET Staffordshire University,	1	1.82
Dalian University of Technology Dalian	1	1.82
City University of Hong Kong	1	1.82
Center for Innovation Research,	1	1.82
Bei Hang University,	1	1.82
Autonomous University of Baja California	1	1.82
Arizona State University	1	1.82
Åbo Akademi University	1	1.82
University of Siegen	1	1.82
The University of Sydney Business School	1	1.82
National Chiao Tung University	1	1.82
National Central University,	1	1.82
Harrisburg University of Science and Technology	1	1.82
Gazi University	1	1.82
Australian National University (ANU)	1	1.82
Al Ghurair University,	1	1.82
Peking University,	1	1.82
Total institution : 53 institutions	56	

4.2. Authors' academic backgrounds

The academic background author that can be seen in table 3 consists of 18 backgrounds of 91 authors that match the research.

Table 4. Discipline of authors

Department	#	%
Department of Information Systems	14	12.74
Information Management	13	11.83

Business Administration	11	10.01
Industry	10	9.1
Management	9	8.19
Economics and Management	9	8.19
Architecture and Urban Studies	4	3.64
Department of Informatics	3	2.73
Chemical Sciences and Engineering	3	2.73
Center for Sustainable Innovation	3	2.73
Technology and Management	2	1.82
Shipping and Transportation Management	2	1.82
Business and Finance	2	1.82
Business and Economics	2	1.82
Science and Technology	1	0.91
Development Policy Management	1	0.91
Department of Management and Marketing	1	0.91
Computing Drive	1	0.91
Total	91	

4.3. Background of authors

The author's background consists of 81 academic and 32 from the industry. Those who do related research on knowledge management.

Table 5. Background of authors

Background author	#	%
Academic	81	90.9
industry	10	9.1
Total	91	

4.4. University affiliation according to country

University affiliation of the 68 countries, China has 16 authors with six institutions, Taiwan has 13 authors with six institutions, the USA has nine authors with five institutions, Netherland has eight authors with five institutions, the UK has seven authors with four institutions, and detail data can see in table six. it is a country that contributes in the development research in knowledge management.

Table 6. University affiliation according to country

Country	# authors	% authors	# institutions	% institutions
China	16	17.58	6	12.77
Taiwan	13	14.29	6	12.77
USA	9	9.89	5	10.64
Netherlands	8	8.79	5	10.64
UK	7	7.69	4	8.51
Hongkong	5	5.49	3	6.38
Italy	4	4.40	1	2.13
Korea Selatan	4	4.40	1	2.13
Australia	3	3.30	2	4.26
Portugal	3	3.30	1	2.13
Brazil	3	3.30	1	2.13

Country	# authors	% authors	# institutions	% institutions
Finland	2	2.20	2	4.26
Singapore	2	2.20	2	4.26
Spain	2	2.20	1	2.13
Turkey	2	2.20	1	2.13
Malaysia	2	2.20	1	2.13
New Zealand	2	2.20	1	2.13
United Arab Emirates	1	1.10	1	2.13
Australia	1	1.10	1	2.13
México	1	1.10	1	2.13
Croatia	1	1.10	1	2.13
Total country: 21 countries	91		47	

4.5. Most prolific authors

From the analyst's point of view, there are 90 authors with 39 papers. The author who actively found the author on KM in social society is Marleen Huysman (# 2). Another writer averages one article. It can be seen clearly in Table 7 below.

Table 7. most prolific authors

Author	#	%
Marleen Huysman	2	2.25
Albert A. Cannella Jr	1	1.12
Gang Qu	1	1.12
Rolando Vargas Vallejos	1	1.12
Amanda Edwards	1	1.12
Andrew Long	1	1.12
Annette Boaz	1	1.12
Anne-wil Hazing	1	1.12
AydĀntan Belgin	1	1.12
Bosen Li	1	1.12
CarlaC.J.M. Milla	1	1.12
Carlos J. Costa	1	1.12
Caterina De Lucia	1	1.12
Chen Yen Yao	1	1.12
Chen Yijia	1	1.12
Cheng Yang Lai	1	1.12
Chia Fen Chung	1	1.12
Chin-Chung Tsai	1	1.12
Chongju Choi	1	1.12
Chun-Wei Choo	1	1.12
David Sundaram	1	1.12
Dino Borri	1	1.12
Fan Yi-Wen	1	1.12
G.Widen	1	1.12
Goksel Aykut	1	1.12
Guido Sechi	1	1.12
He Wei	1	1.12
Hsing Kuo Wang	1	1.12

Author	#	%
Hsiu-Fen Lin	1	1.12
Janaina Macke	1	1.12
Javier Osorio	1	1.12
Jay Liebowitz	1	1.12
Jin Hui	1	1.12
Jingjing Han	1	1.12
Jin-Xing Hao	1	1.12
Jo van Engelen	1	1.12
Jordan Lewis-Pryde	1	1.12
Jui Pattnayak	1	1.12
Julia Nieves	1	1.12
Jung Feng Tseng	1	1.12
Kadgia Faccin	1	1.12
Kang Kai	1	1.12
Kelly Lyons	1	1.12
Kwok-Kee Wei	1	1.12
Lesley Gray	1	1.12
Li Wang	1	1.12
Lorna Uden	1	1.12
Lv Jingyin	1	1.12
M. Ann McFadyen	1	1.12
Manuela Aparicio	1	1.12
Margaret Sheng	1	1.12
Mark W.McElroy	1	1.12
Markus Schatten	1	1.12
Matti Mantymaki	1	1.12
Mohamed Khalifa	1	1.12
Niels Noorderhaven	1	1.12
Nuno Sousa	1	1.12
Ping Chuan Chen	1	1.12
Qian Qian	1	1.12
Rafael Pimienta-romo	1	1.12
Rendi Hartono	1	1.12
Rene J.Jorna	1	1.12
Reyes Juarez-ramirez	1	1.12
Richard David Evans	1	1.12
Richard Heeks	1	1.12
Riemer kai	1	1.12
Rose Alinda Alias	1	1.12
Sabyasachi	1	1.12
Sarah Cummings	1	1.12
Shih-Wei Chou	1	1.12
Shiu Wan Hung	1	1.12
Steven Chuang	1	1.12
Tzu Fong Liao	1	1.12
Valeria Sadovykh	1	1.12
Viesturs Celmins	1	1.12
Viesturs Celmins	1	1.12
Violeta Ocegueda-miramontes	1	1.12
Volker Wulf	1	1.12
Wu Cheng-Chieh	1	1.12
Xiao Ying Dong	1	1.12

Author	#	%
Yan Yu	1	1.12
Yen-Chiang Fang	1	1.12
Yu Fang Yen	1	1.12
Yu-Chieh Chang	1	1.12
Yujin Choi	1	1.12
Yung Ming Li	1	1.12
Zainal Wardah Abidin	1	1.12
Zhang Jie	1	1.12
Total	89	

4.6. Mapping to Theories, Factors, and Paper

The comprehensive review process classifies the factors that are mostly done in knowledge management in social societies. This factor classification mapping is based on the theory, factors, and authors of the articles used in this study. The following results are shown in Table 8

Table 8. Theories, Factors, and Paper

Theory	Factor	ID Paper
Social Capital	Cognitive social capital	[15],[16],[17]
	Relational social capital	[18],[19],[20],[21],[22],
	Structural social capital	[23],[24],[25],[26],[27],[28],[29],[8],[30],[31],[32],[33],[34],[35],[36],[37],[38]
Social network-based Markov Chain (SNMC) models	Semantic Similarity	[39]
	Profession, Reliability,	
	Social intimacy	
	Popularity,	
Enterprise Social Networking	Work Discussion	[40]
	Input Generation	
	Problem-solving, Social Praise	
	Idea Generation	
	Status Updates Informal	
	Task Management	
	Talk Event, Notifications	
Theory of Planned Behavior (TPB)	The intention, Perceived behavior toward	[19]
Transactive Memory System (TMS) Theory	Credibility	[18]
	Specialization	
	Coordination	
SECI model	Socialization, Externalization,	[2]

Theory	Factor	ID Paper
	Combination, and Internalization	
Social Networks	People-related, Process-related, Technical-related, Adaptability/ Agility, Creativity, Institutional memory building, Organizational Internal Effectiveness, Intangibility, Heterogeneity, Perishability	[41],[42],[43], [44]
Semantic Social Networks	Basic typed Semantic Social networks and Trust annotated semantic social networks	[45]
Social Interaction	Employee motivation (Intrinsic motivation and Extrinsic motivation), Social interaction (Interpersonal trust, Openness in Communication, and Social reciprocity), and Knowledge Management (KM) strategy (Codification Knowledge Strategy and Personalization Knowledge Strategy)	[46]

4.7. Keyword Analysis

Keyword Analysis used in searching papers related to the study of social knowledge Management. The keyword used yields 278 papers from 7 reputable journal database sources. Among the frequently used keywords are ‘Knowledge Management Social Theory’. Article data found on other keywords that occur overlap.

Table 9. Most frequently used keywords

Keyword	Paper						
	Emerald	IEEE	Jstor	ACM	Science Direct	TandF	springer
Knowledge Management Social	17	10	4	8	10	15	8
Knowledge Management Social Theory	12	8	10	9	8	12	15

Knowledge Management Society	15	1 5	8	5	12	14	8
Social knowledge Management Theory	16	7	8	3	5	7	9

4.8. Mapping Theories for Factors to uses in Social Knowledge Management

- Theory of Planned Behavior (TPB)

Ajzen explains that TRA is an individual's attitude toward behavior positively influencing intention to participate in that behavior[19]. The main factor of planned behavior theory is the individual's intention to perform certain behaviors. An intent is assumed to capture the motivating factors that influence the behavior of the individual. This is an indication of how hard it is for people to try, how much effort they plan to do that behavior. As a general rule, the stronger the intention to engage in the behavior, the more likely it is to perform. However, it should be clear that behavioral intentions can only express behavior only if the behavior in question is under complete control [47].

- Transactive memory system (TMS) theory

The concept of TMS is the specific division of labor processes that relate to taking, storing, and retrieving knowledge from different environments[48]. The TMS process occurs in individual/group transactions that are aware of the need to develop unique knowledge and member expertise so that a group can rely on member knowledge. This TMS consists of three main components (1) specialization shows different members' knowledge structures, (2) credibility shows members' beliefs about the accuracy and reliability of other members' knowledge, (3) coordination shows the effective and orderly storage of knowledge [18].

- Social capital theory

Social capital is a knowledge resource that comes from social networks that people can use to make a behavior. This is illustrated through the ability to access and exchange the knowledge resources of individuals who are in the social structure. [22],[23],[24],[25], [26][49]. This makes Social capital has been recognized as an important factor for social interaction[15],[16], [17],[18], [19], [20], [21]. Interpersonal networks provide channels for the exchange of tangible and intangible resources needed. Nahapiet & Ghoshal suggest that social capital is a multifaceted concept and can be divided into three dimensions: capital structure, relationship capital, and cognitive capital.

- SECI model

The process of socialization refers to the transfer of knowledge. The externalization process refers to documenting their knowledge so that it is possible to share it with others [1], [10], [11]. The Combination Process refers to combining knowledge with other knowledge to rearrange new knowledge [2]. Internalization Process. During the process of making new knowledge that everyone can share with each individual through

further consultation, training, and assimilating this knowledge [2], [11].

- Social Networks

Social Network Theory is a theory or study that studies how people, organizations, or groups interact with others in the network that exists in them[50], [51].In understanding this theory, it is easier when you examine individual pieces that start with the most significant element, i.e., the network, and work up to the smallest element, i.e., the actor[19]. Social networks are social structures that have a set of social actors (such as individuals or organizations), a collection of ties, and other social interactions between actors [52]. The view of the social network provides a set of methods used to analyze the structure of the entire social entity as well as theories that explain the patterns observed in this structure [45].

5. Conclusions

Results obtained from the discussions that have been described. Described the knowledge management occurs within the social environment can be seen from the development of research conducted with several theories. Social capital theory[15][16][17] shows that 3 very strong factors can influence social relationships that occur in individuals within the social community is structural capital, cognitive capital, and relationship capital, in addition to this Theory of Planned Behavior (TPB) illustrates that the main factor for determining the intention of individuals to perform certain behaviors is the attitude of individuals to behave positively [19] [47]. it also affects knowledge management.

After that, individual transactions described in the Transactive memory system (TMS) theory [48] have major components: specialization, credibility, coordination, so that teams can develop a shared awareness of each member's unique knowledge and expertise[18].

Maintain relationships and transactions that occur requires a good social network. Social network theory explains by increasing interpersonal trust, informal communication, and reciprocal relationships, People-related, Process-related, Technical-related, Adaptability/agility, Creativity, Institutional memory building, Organizational internal effectiveness, Intangibility, Heterogeneity, Perishability, in turn, increasing KM maturity. The theory of social interaction affects the improvement of social networking relations. Factors are employee motivation (intrinsic motivation and extrinsic motivation), social interaction (interpersonal trust, openness in communication, and social reciprocity), and knowledge management (KM) strategy (codification knowledge strategy and personalization knowledge strategy). From the results obtained, this study illustrates these factors that affect KM in social society.

6. Implication

Based on the findings of structural capital, cognitive capital, and relationship capital on social capital theory, it becomes an essential factor to be seen in KM in social society. Thus KM can

well by looking at the individual social interactions that occur. By calculating or reviewing the interaction. The implications are given in science is that social knowledge management requires developed social media today that can facilitate interactions that occur within a social community.

7. Limitation and Future research

This study has a limited database used; this is due to limited access. The number of articles to be added is mainly extracted from credible and published databases in the last five years. Future research, researchers will perform statistical analysis of these factors on the social community to determine the influence of these factors. so, it can be seen with concrete factors that influence in KM

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