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THE BIBLIOMETRIC AND CONTENT ANALYSES FOR THE CONCEPTS OF TRUST AND SOCIAL MEDIA IN RECENT SCHOLARLY JOURNALS

Introduction

Trust has been a key concept in interpersonal and organizational communication literature. There has been a trend to study trust not as a pure concept, but in interpersonal communication and relationship management. Trust-building or breaking behaviors were studied in employee relationships, in intra-organizational or inter-organizational communication settings. This broad area of study may also be seen in the conceptual associations linked to trust. Interpersonal trust, organizational and social trust reflect the frames of the community where trust behavior is realized. Consumer and brand trust are seen in the literature where financial and marketing needs define the roles related to trust and confidence. In recent years, with the increasing use of new media technologies and social networking systems in corporate and marketing communication, new media and social media have also started to be discussed on subjects such as privacy and security of information, confidence among users, credibility of information shared online. These issues have also put trust into the centre of communication practices.

This study has emerged with the research question on what types and aspects of trust have become more popular in recently published scholarly papers which treat trust and social media together. The study aims to contribute to the communication research area by analyzing and describing the mostly studied trust-based topics and the intersections of trust and social media in the last half decade. It also tries to list the mostly cited scholarly papers so as to help young researchers reach recent bibliography on these issues.

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Research Design and Method

The research has been based on the bibliographical survey method including the data collection and analysis steps. Both quantitative and qualitative methods were utilized to analyze the data. For quantitative analysis, the Statistical Package for the Social Sciences on Windows program (version 18) was used while qualitative data were being assessed via content analysis technique was

The data for bibliographical search were collected from various databases registered at Namik Kemal University Library using OneSearch engine, which sorts out articles and publications from academic journals and e-books. In order to narrow the spectrum of relevant results, the criteria were limited to include only peer-reviewed journal articles accessible in full text and published during the period of 2011-2015 with January and December as starting and ending points. 2016 releases haven't been included as some of the publications might have been in press and not available online. Subject limitation was also been implemented by the exclusion of results from architecture, environment, engineering and natural sciences with the exception of computer and technology, for which social media seems to be a popular research issue. The data were collected and analyzed during June and August 2016.

The peer-reviewed articles have been compiled from the databases regarding their citation frequency, citation index, direct reference to the concept of trust and social media in the title or abstract of the work, or on the use of trust and / or social media tools as a key construct within the paper and within the keywords. The articles which do not combine both terms in content have been excluded. The search results have been classified under four categories as discipline, publication year, citation index, number of authors and number of total citations. The data were categorized under seven disciplines concerning the subject matter of the journal itself and the key issues discussed in the articles. Citation indexes of Web of Science and Scopus were considered to be two criteria with the mixed index as the third one under this category.

The quantitative data acquired have been analyzed for descriptive statistics in frequencies and crosstabs for Chi-Square scores via Statistical Package for the Social Sciences (SPSS) on Windows in version 18. The content analysis technique has been utilized to analyze qualitative data with subject reference and key constructs of trust and social media tools.

Results and Discussion: Bibliometric Analysis

The search results revealed that 114 peer-reviewed articles were published

between 31st December 2011 and 1st January 2016, with reference to one aspect of trust together with social media use or tools. Table 1 displays the frequency distribution of all these publications with reference to seven disciplines, publication years, citation index, number of authors and total number of citations. Table 2 shows the titles of journals in each discipline with the highest number of relevant articles.

The largest group of articles (27%) was found in the discipline of Computer Science and Information Technology, in which Computers in Human Behavior held the highest rank regarding the number of related articles (n=12). The second largest discipline was identified as Communication, Broadcasting and Journalism (21.1%) in which European Journal of Communication, Journal of Communication and Communication Research held the highest number of cited articles (n=5, n=3). Two disciplines entitled Business and Economics and Political Science and Public Administration proceeded them with the rates of 15.5% and 13.2% respectively. Within these groups, Government Information Quarterly was found to include the highest number of trust articles (n=4). Journals matching the discipline groups of Health Sciences and Public Relations and Advertising had the lowest number of related articles (n=8 each) in which Public Relations Review had the highest number of cited articles (n=4). Education, Psychology and Society was listed to be 1% higher regarding the number of articles though an equal distribution was recorded among journals in this category.

Regarding years, 2013 came up with the highest number of articles (n=29) which comprised a quarter of all publications whereas 2011 was considered to have the lowest rate (11.4%) with less than half in number than 2013. Considering the citation index, Web of Science created a huge gap for Scopus with the rate of 70.2% while there were considerably a large number of publications determined to be cited in both indexes (28.1%). More than half of the articles were specified to be co-authored by two-three researchers (56.1%). There was also a similar result in each discipline category. It is possible to say that there is a significant association between discipline type and the number of authors (p<0.022).

Trust and social media related articles seem to have taken a wide range of citations from researchers. Statistically, most of the articles tended to be cited once, twice or thrice (36% in total) in literature whereas much more frequently cited ones, which received at least fifteen citations or more, comprised 20% of all.

Table 1

Frequencies of Peer-Reviewed Scholarly Articles published in 2011-2015

Discipline	N	%	Total citations	N	%
Communication, Broadcasting and Journalism	24	21.1	1.00	15	13.2
PR and Advertising	8	7.0	2.00	15	13.2
Political Science and Public Admniistration	15	13.2	3.00	11	9.6
Business and Economics	18	15.8	4.00	6	5.3
Education, Psychology and Society	10	8.8	5.00	5	4.4
Computer Science and Information Technology	31	27.2	6.00	8	7.0
Health Sciences	8	7.0	7.00	5	4.4
Total	114	100.0	8.00	3	2.6
Publication Year	**N**	**%**	9.00	6	5.3
2011	13	11.4	10.00	7	6.1
2012	25	21.9	11.00	5	4.4
2013	29	25.4	12.00	3	2.6
2014	24	21.1	13.00	1	.9
2015	23	20.2	14.00	3	2.6
Total	114	100.0	15.00	1	.9
Citation Index	**N**	**%**	16.00	1	.9
All	32	28.1	17.00	3	2.6
Web of Science	80	70.2	18.00	1	.9
Scopus	2	1.8	21.00	2	1.8
Total	114	100.0	23.00	1	.9
Author number	**N**	**%**	28.00	1	.9
Single author	25	21.9	30.00	1	.9
Two-three authors	64	56.1	36.00	1	.9
More than three authors	25	21.9	37.00	1	.9
Total	114	100.0	42.00	1	.9
	Mean	**Std Dev.**	45.00	1	.9
Discipline	3.9386	2.03633	51.00	1	.9
Publication Year	3.1667	1.29613	67.00	1	.9
Citation Index	1.7368	.48065	69.00	1	.9
Author number	2.0000	.66519	93.00	1	.9
Total Citations	12.4123	20.82961	121.00	1	.9
			127.00	1	.9
			Total	114	100.0

Source: author's own work.

Table 2

Journals with Maximum Number of Articles related to Trust & Social Media

Discipline	Journal Title	Total Articles
Communication, Journalism & Broadcasting	Journal of Computer-Mediated Communication	2
	Journal of Broadcasting and Electronic Media	2
	Information, Communication and Society	2
	European Journal of Communication	5
	Communication Research	3
	Journal of Communication	3
PR & Advertising	Public Relations Review	4
	Political Communication	2
Political Science & Public Administration	Government Information Quarterly	4
	Social Science Journal	2
Business & Economics	Journal of Business Research	2
	Journal of Electronic Commerce Reserach	2
Computer & IT Sciences	Technological Forecasting and Social Change	2
	International Journal of Information Management	2
	Computers in Human Behavior	12
	Telematics and Informatics	2
Health Sciences	Health, Risk and Society	2

Source: author's own work.

Content Analysis

The second stage for research was to analyze the content regarding key concepts which were described by the researcher using the subject words, keywords and the content of each article. The qualitative data for 114 scholarly articles were grouped under seven trust-related terms as political trust, interpersonal trust, social / public trust, organizational / institutional trust, brand trust / brand loyalty, trust in communication and constructs of trust. In this section, each category is explained in relation to core concepts of social media, media effects and public relations with reference to selected articles exemplifying the category. Table 3 displays the mostly studied aspects of trust in peer-reviewed journals in the last half decade.

Table 3

Frequency of Trust Categories in Peer-Reviewed Articles

Category of Trust	N	%
Media Trust / Trust in Communication	32	28.0
Social Trust	20	17.5
Political Trust	14	12.3
Interpersonal Trust	13	11.4
Brand Trust	9	7.9
Constructs of Trust	9	7.9
Organizational Trust	8	7.0
Social Capital	7	6.1
Emotional Trust	1	0.9
Other	1	0 .9
Total	**114**	**100**

Source: author's own work.

Political Trust

Political trust was found to be the leading term in 14 articles basically mentioning three main aspects a) political participation and civil engagement via digital media online and offline (Gil de Zúñiga 2012) b) trust in various governmental bodies and government authorities such as police institutions, local governments, politicians and government media (Lee, McGavorn 2013, Mossberger et al. 2013) c) participation of young generation in political issues via social media (Skoric, Poor 2013). Public relations of the government authorities online and social media use of political participants were also key elements in most of those articles.

Social Capital

Social capital was identified in relation to social and political trust with media effects on the society in 7 articles. According to the results, two articles which mentioned trust as a component of social capital, focused also on political participation via civic engagement on Facebook, Twitter and via the extent of news consumption by the population (Cao et al. 2015). The other three articles on social capital combined the theory with the knowledge integration and communication on social media by specific layers of society such as migrants (Dekker, Engbersen 2014, Rojas et al. 2011) and an article regarding social trust as an indicator of social capital (Hindman, Yamamoto 2011).

Interpersonal Trust

Interpersonal trust was found as a key concept in 13 articles in the research. The most interesting part of these articles was interpersonal trust was studied with regards either to community building and increasing self-confidence of mostly teenagers or regards to its impact on social cooperation with negative effects. Four articles studied community building concept, two of which focused on the use of social networking systems (Baek et al. 2013) and one on the cognitive and social use of IT by employees. Integration of interpersonal trust to new media was discussed by three articles based on increasing self-confidence and social cooperation via online video games (Gordon, Baldwin-Philippi 2014). However, the effect of video games on increasing cooperative behavior was criticized in two articles because of its risk to increase the extent of violence and aggression among teenagers (Greitemeyer et al. 2013, Rothmund et al. 2011). The last idea shared by two articles was the use of online communication to continue long-distance relationships and the effect of media on social participation of religions.

Social Trust / Public Trust

Social trust or public trust was studied in 20 articles. in more than half of theme, "social trust" concept was used explicitly. In this study, public trust is used as a broad term, not limited to the public sphere trust in government, but extended to include all years of society and publics. Within this context, the articles merging social trust and media were analyzed to have four focal points:

a) There were four articles about governance and social participation, two of which focused on enhancing civic participation, e-participation and e-governance via social media use (Bonsón 2012). The other two articles discussed civic participation via mass media and other ICT tools during post-disaster recovery terms.

b) The use of public relations to increase public trust in public organizations was the second sub-topic. Two articles were found about the assessment of the efficacy of public relations and news media used to increase public trust mostly in governmental organizations (Hong 2013) and only one was to assess social trust in public and private institutions via external communication.

c) The largest sub-category had nine articles combining risk communication and social trust. In this sub-group, changes in the level of social trust regarding risk perception of society due to news on mass media

was discussed in two articles while three more were assessing trust on information distributed on social media with the focus on food safety. Disaster management was found to be considered with social trust in three other articles.

d) The assessment of public trust and the loss of public opinion on health care policies, advertising regulations and government media were considered in a sub-group as the loss of public opinion due to recent governmental regulations was the common discussion point (Leiserowitz et al. 2013).

Brand Trust / Brand Loyalty

Brand trust was discussed as a key concept in 9 articles, in association with the use of social media in business. In most of the articles, brand trust was considered in a closely connected aspect with the term brand loyalty, either reflecting the commercial use of social media or consumers' perspective and brand commitment (Turri et al. 2013). Brand commitment was also a key element in an article where consumer criticism on social media was studied as a factor contributing to it (Xia 2013). In three of the articles, brand loyalty was associated with social media use of consumers and social media assessment for civic participation by public institutions (Mergel 2013). Social media-based brand communities were studied in two cases where brand loyalty was the core point (Laroche et al. 2012). In two other articles, brand trust was described as a level of trust in social and electronic commerce (Hajli 2015).

Organizational Trust

Although this category included relatively less number of articles than others, it was significant to find out that it occupied different aspects of the concept. Organizational trust was studied with regards to business managers' use of social networking systems (SNSs) to provide customer orientation in one publication and in another, intra-organization trust was defined in hand with intra-organizational communication and organizational rhetorical practices (Huang et al. 2013). Trust violation in organizations by the use of various SNSs was the focus of two articles in the category while organizational trust, defined as "institutional trust" in news media as in some other articles revealed, was studied with the focus on religious and healthcare organizations as well as in higher education institutions (Kale 2013).

Media Trust / Trust in Communication

The largest category in the research findings was defined as trust in communication with the great combination of media trust articles, comprising 60% of 32 articles in the group. Trust in communication was divided into four subtopics according to the research results. Building trust in online communication, crisis communication and reputation were commented apart from the media trust compilation based on the discussions of security and privacy of online information, trustworthiness and credibility of the information on social media as explained below:

a) Building trust in online communication was discussed in four of the articles where word-of-mouth on social media and social networking systems (SNSs) was the common issue (Flanagin, Metzger 2013). In two of the articles, trust was studied in the scope of consumers' confidence in user-generated communication distributed online for social commerce. Trust and societal communication in cross-country settings formed the key point for three articles in two of which trust on government media and public broadcasters were analyzed in two different countries while cross-country study of individual and contextual correlates of media trust being the subject issue for the third one (Tsfati, Ariely 2014).

b) Reputation was found to be a widely studied concept in trust-related articles in communication research. There were 5 articles in total regarding reputation mechanisms on social media as well as personalized user recommendations based on trust and trust in the reputation of tourism enterprises such as hotels via user-generated content and comments published on social media or via advertising campaigns. There was also one article comparing and contrasting the differences and similarities of crisis communication practices carried out on social media vs. printed media (Utz et al. 2013).

c) The articles found to be in the group of media trust had the issue of security and privacy of online information used for purchase intentions as the core concept. The privacy of information collected from social media was a common topic in four articles, one of which considered trust as privacy control on Facebook and online advertising (Zhou et al. 2012)

d) In a large group of articles, credibility and trustworthiness of media information was discussed from several aspects. In this sub-group,

transparency of communication and trustworthiness of social media content was considered in three articles. The perceived media credibility of journalists by online community news readers was the focus in one article and self-exposure of the youth on social media was the core point in another.

It was interesting to explore that the credibility of health information and health organizations was discussed in 6 articles related to healthcare-based issues such as vaccine, nutrition education and specific disorders. Perceived trust based on health information related to multiplesclerosis distributed on social media was noted as a widely cited example (Marrie et al. 2013). The credibility of media coverage on mainstream media was represented by only one article in this sub-category.

Constructs of Trust

This category was composed of articles studying trust in a more theoretical basis, as well as in other concepts interchangeably used for trust or closely associated with trust such as confidence and commitment. In the theoretical aspect, trust was defined as a value developed on SNSs in one article and in another the theory of Giddens was discussed around social theory and identity whereas distrust and conspiracy theory were the focus of the third article in this subcategory (Kim, Ahmad 2013). With the conceptual framework, trust was considered as the commitment in customer engagement and in relationship management in marketing. Trust was also considered as confidence built in social media marketing or trustworthiness and assurance in online settings. An article discussed trustworthiness of police institutions with regarding the types of procedural-based trust and outcome-based trust (Sun et al. 2013). Two articles in this category focused on the power and authority shift via the use of social media in post-modern world (Cheong et al. 2011).

Conclusion

The bibliography search on the peer-reviewed articles with citations displayed that 114 articles had direct reference to the concepts of trust and social media during the last five years. 2013 was the top year with highest frequency of publications in that sense. According to the results, media trust or trust in communication was the leading category to attract interest of scholars with the focus on privacy and security of information, credibility of social media as well as reputation and trust together influential on online communication. Being the second most preferred subject issue, social trust was the indicator of discussions on the impact of social networking systems

on governance, civic participation and electronic participation of particularly young people to public issues. It is seen that social trust has been used as an aid for risk communication during post-recovery times after disasters like Fukushima and great earthquakes. It is also obvious that trust is still interesting for researches who would like to define trust with closely related concepts like confidence, assurance and trustworthiness. Defining trust as a strong component of social capital is also a popular discussion area. Social capital appears like a good reference for social and political trust research considering the shift of power through the use of social media and online communication tools. The concepts of brand trust and consumer trust are also seen as emerging trends after the introduction of social networking systems into customer orientation, social commerce and even into corporate communication areas.

Literature

Baek Y. M., Bae Y., Jang H. (2013), Social and Parasocial Relationships on Social Network Sites and Their Differential Relationships with Users' Psychological Well-Being, "Cyberpsychology, Behavior, and Social Networking", Vol. 16, Issue 7.

Bonsón E., Torres L., Royo S. (2012), Local e-government 2.0: Social media and corporate transparency in municipalities, "Government Information Quarterly", Vol. 29, Issue 2.

Cao X. F., Gao X. T. Liu X. F. (2015), The role of social media in supporting knowledge integration: A social capital analysis, "Information Systems Frontiers", Vol. 17, Issue 2.

Cheong P. H., Huang S. P. Jessie P. H. (2011), Religious Communication and Epistemic Authority of Leaders in Wired Faith Organizations, "Journal of Communication", Vol. 61, Issue 5.

Dekker R., Engbersen G. (2014), How social media transform migrant networks and facilitate migration, "Global Networks", Vol. 14, Issue 4.

Flanagin A. J., Metzger M. J. (2013), Trusting expert versus user-generated ratings online: The role of information volume, valence, and consumer characteristics, "Computers in Human Behavior", Vol. 29, Issue 4.

Gil De Zúñiga H. (2012), Social Media Use for News and Individuals' Social Capital, Civic Engagement and Political Participation, "Journal of Computer-Mediated Communication", Vol. 17, Issue 3.

GORDON E., BALDWIN-PHILIPPI J. (2014), Playful Civic Learning: Enabling Reflection and Lateral Trust in Game-based Public Participation, "International Journal of Communication", Vol. 8.

GREITEMEYER T., TRAUT-MATTAUSCH E., OSSWALD S. (2012), How to ameliorate negative effects of violent video games on cooperation: Play it cooperatively in a team, "Computers in Human Behavior", Vol. 28, Issue 4.

HAJLI N. (2015), Social commerce constructs and consumer's intention to buy, "International Journal of Information Management", Vol. 35, Issue 2.

HINDMAN D. B., YAMAMOTO M. (2011), Social Capital in a Community Context: A Multilevel Analysis of Individual- and Community-Level Predictors of Social Trust, "Mass Communication and Society", Vol. 14, Issue 6.

HONG H. (2013), Government websites and social media's influence on government-public relationship, "Public Relations Review", Vol. 39, Issue 4.

HUANG J., BAPTISTA J., GALLIERS R. D. (2013), Reconceptualizing rhetorical practices in organizations: The impact of social media on internal communications, "Information and Management", Vol. 50, Issue 2-3.

KALE M. (2013), Perceptions of college of education students in Turkey towards organizational justice, trust in administrators, and instructors, "Higher Education", Vol. 66, Issue 5.

KIM Y. A., AHMAD M. A. (2013), Trust, distrust and lack of confidence of users in online social media-sharing communities, "Knowledge-Based Systems", Vol. 37.

LAROCHE M., HABIBI M. R., RICHARD M. (2012), The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty, "Computers in Human Behavior", Vol. 28, Issue 5.

LEE M., MCGOVERN A. (2013), Force to sell: Policing the image and manufacturing public confidence, "Policing and Society", Vol. 23, Issue 2.

LEISEROWITZ A. A., MAIBACH E. W., ROSER-RENOUF C. (2013), Climategate, Public Opinion, and the Loss of Trust, "American Behavioral Scientist", Vol. 57, Issue 6.

MARRIE R. A, SALTER A. R., TYRY T. (2013), Preferred sources of health information in persons with multiple sclerosis: Degree of trust and information sought, "Journal of Medical Internet Research", 04/2013, Vol. 15, Issue 4.

Mergel I. (2013), A framework for interpreting social media interactions in the public sector, "Government Information Quarterly", Vol. 30, Issue 4.

Rojas H., Shah D. V., Friedland L. A. (2011), A Communicative Approach to Social Capital, "Journal of Communication", Vol. 61, Issue 4.

Rothmund T., Gollwitzer M., Klimmt C. (2011), Of Virtual Victims and Victimized Virtues: Differential Effects of Experienced Aggression in Video Games on Social Cooperation, "Personality and Social Psychology Bulletin", Vol. 37, Issue 1.

Skoric M. M., Poor N. (2013), Youth Engagement in Singapore: The Interplay of Social and Traditional Media, "Journal of Broadcasting and Electronic Media", Vol. 57, Issue 2.

Sun I. Y., Hu R., Wong D. F. K. (2013), One country, three populations: Trust in police among migrants, villagers, and urbanites in China, "Social Science Research", Vol. 42, Issue 6.

Tsfati Y., Ariely G. (2014), Individual and Contextual Correlates of Trust in Media Across 44 Countries, "Communication Research", Vol. 41, Issue 6.

Turri A. M., Smith K. H., Kemp E. (2013), Developing affective brand commitment through social media, "Journal of Electronic Commerce Research", Vol. 14, Issue 7.

Utz S., Schultz F., Glocka S. (2013), Crisis communication online: How medium, crisis type and emotions affected public reactions in the Fukushima Daiichi nuclear disaster, "Public Relations Review", Vol. 39, Issue 1.

Xia L. (2013), Effects of Companies' Responses to Consumer Criticism in Social Media, "International Journal of Electronic Commerce", Vol. 17, Issue 4.

Zhou X., Xu Y., Li Y. (2012), The state-of-the-art in personalized recommender systems for social networking, "Artificial Intelligence Review", Vol. 37, Issue 2.

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Keywords: trust, social media, communication research, content analysis, media trust.

Trust has been a key concept in interpersonal and organizational communication literature in recent years. The use of new media technologies and social networking systems in corporate and marketing communication has brought about the need for studying trust and social media in various aspects. This study aims to contribute to the communication research area by analyzing and describing the academic trends and mostly studied trust-based topics in the recent literature. It also reveals the intersections of trust and social media by referring to the mostly cited scholarly papers in the last half decade. The research design is based on the bibliographical survey method proceeded by bibliometric and content analysis steps. The bibliography search has been carried out on OneSearch database with the access to peer-reviewed articles with direct reference to the concept of trust and social media during 2011-2015 in five-year period. The results have displayed 114 peer-reviewed and cited articles discussing trust and social media in nine categories with media trust as the leading one.