

Conference Paper

Understanding Transactive Memory Systems (TMS) in Tourism Information Sharing

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ABSTRACT

This study aims to investigate the phenomenon of sharing information in social media groups. This research also investigates the role that communication plays in the dissemination of information within groups and the formation of self-relevant values. The methodology was quantitative, and the sampling method was purposive. Using a survey to collect information from 807 students at SMAN 18 Bandung. In the analysis data section, the proposed model was evaluated utilizing Structural Equation Modeling (SEM). The model proposed was evaluated using AMOS 21. The model's fit indices demonstrate good fit. There are five accepted hypotheses in this study. It was discovered that 1) formal and 2) informal communications have a positive impact on transactive memory systems, 3) transactive memory systems have a positive impact on self-relevant value, and 4) transactive memory systems are an effective mediator between formal and informal communication and self-relevant value. The study suggests some strategic implications as well.

Keywords: Transactive memory systems, sharing, information, communication

Introduction

In tourism, information which posts on social media by others is necessary strong. Information is crucial and will affect the decision of tourists. Tourists will need accurate information as they will determine tourist destinations (Gursoy & McCleary, 2004). To obtain such information they usually seek it through social media (Huang et al., 2010). The information becomes important and needs credibility from the informer, which leads the information seeker, ask to known people first. Communication on social media itself there is several ways, such as formal and informal. Sharing information requires time and effort, people only share their information when they are highly motivated (Chaiken & Trope, 1999). One reason certain information may be shared extensively in their group of friends is its inherent self-value. Thus, according to Kim et al. (2015), self-worth is comprised of self-reflective evaluation, recognizable value, and self-image consistency. 51% of individuals say social media has made someone more self-conscious, and 60% of social media users say it has affected their self-esteem (www.huffingtonpost.com). Tourism information that provides social benefits or reflects a person's self-image appears to stimulate their desire to express themselves with other people about their selves. This phenomenon in social media communities or groups is fascinating (Wilson et al., 2012).

Communication through social media has been adapted to any conditions. People communicated on social media in free and mercurial ways (Chung et al., 2015). Social media is not only used to improve self-image as said by Kim et al. (2015) which is a medium to share daily activities to increase their value but social media has now been used as a medium of formal communication as well (Kim & Benbasat, 2006). Formal communication is defined as formatted and controlled (Dittrich & Giuffrida, 2011). Makes social media have become essential for

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transactive memory systems (TMS), which according to Chung et al. (2015) can function as collective intelligence or as TMS formed. According to Kim et al. (2011), the first concept of transactive memory systems (TMS) was introduced to explain the behavior of close relationships. Much research after that, describe TMS as information sharing (Chung et al., 2015). In small groups, TMS fundamentally is a process interaction of information exchange (Jackson, 2011), that is only people which have a strong intention for information sharing with others (Chung et al., 2015).

Some researchers become interested in TMS because it provides groups with an understanding of knowledge utilization and coordination (Chung et al., 2015). TMS can make people not only emphasize their memory with their information but also can emphasize others' information. Groups with very many people can inhibit the development of TMS, whereas TMS will grow stronger in small or medium groups (Jackson, 2011). Every group does not always have members with high intentions of information sharing. According to Qhoi (2010), there are people which voluntarily share information they have and give emotional support to others but some people prefer to find their own. Previous research says that TMS required specialization, credibility (Zhang & Huang, 2013), accurate information, and collaborative efforts of a member on the subject (Chung et al., 2015) which is built by communication, comments, feedback, private message, and learning. (Choi et al., 2010). Credibility can refer to people's trust level in information. Coordination in the group while distributing information or retrieve efficiently, can be defined as collaborative efforts (Jackson, 2011).

Material and Methods

The researchers in this investigation took a qualitative approach to the descriptive methodology that they were using. The approach to research that was carried out was qualitative. "The principles and procedures that we are using to approach problems and look for solutions are collectively referred to as our methodology" (Mulyana, 2008). According to Sugiyono (2007), qualitative research methods are utilized to investigate natural objects, in which the researcher serves as the primary instrument, combined data collection techniques are utilized, inductive data analysis is performed, and the results of qualitative research place an emphasis on meaning rather than generalization. In contrast to quantitative research, qualitative research is conducted to preserve the nature and substance of human behavior while also analyzing its qualities (Mulyana, 2008). The purpose of this descriptive research is to produce a methodical, factually accurate description, portrait, or drawing of the facts, characteristics, and relationships between the phenomena that have been investigated.

Results and Discussion

Different level of interaction of people in a group shows different magnitude behaviors (Choi et al., 2010). People in a group are generally only classified into two different types in previous research: passive and active (Choi et al., 2010). The literal behavior of people who have high intentions of information sharing has not been fully researched in previous research. According to Jackson (2011), Transactive Memory Systems (TMS) will develop the function of a group under some conditions built up by types of people with information-sharing intentions. Jackson (2011) also believes that TMS can improve other dimensions of the group's performance. Further empirical research on behavior types of people with intentions of information sharing is essential to understand the TMS deployment pattern.

Generally, domestic tourists travel and recreate in other parts or regions of the country to know something different from the surrounding environment. The purpose of their tour in the country usually just want to release their curiosity about the place that is believed to be amazing or fun. In Indonesia alone, a lot of domestic tourists travel to remove fatigue because of their busy every day. The Indonesian people themselves are known as travelers. The tourism ministry noted that the growth of domestic tourists in Indonesia since 2014 has decreased drastically to -1.57%.

In 2015 and 2016 there is a slight increase in growth which still cannot beat the number of domestic tourists in 2013. Although it does not bring foreign exchange to the country like foreign tourists but can reduce foreign exchange for other countries. If domestic tourists choose to vacation in the country compared to abroad, it can reduce foreign exchange to other countries and improve tourism in Indonesia, which is the tourism industry is one of the leading sectors to increase state revenues. Foreign exchange income from tourism occupies the fourth position after oil and gas, coal mining, and palm oil industry.

Transactive memory system

According to Wegner and colleagues (1985), transactive memory systems are a series of memory systems that occur during individual communications. that in other meanings, Transactive Memory System (TMS) is a collection of individuals, one's memory systems, and the interaction happening among them (Wegner, 1987). This theory was devised to explain the capability to organize information when collective memory is disrupted, and it was named after the author Wegner (Zhong et al., 2012). Transactive memory is a collective information system, so it requires the memory systems of all individuals involved, in addition to the particulars of how people interact with one another throughout communication (Wegner, 1987). As a result, the individual memory systems combine to create collective information processing, which, in the end, gives members access to a more extensive and potentially more useful information base than they could individually possess (Wegner, 1987).

Researchers have taken an interest in TMS because it makes it easier to comprehend how information is being utilized and also helps with group coordination. Additionally vital to the process of information exchange is the utilization of TMS (Choi et al., 2010). People can increase their level of understanding not only by observing their own experiences but also by examining the experiences of other people (Li and Huang, 2013). In particular, researchers have drawn attention to the significance of TMS in group behavior (Zhang & Huang, 2013). According to Choi et al. (2010), TMS provides meta-information and serves as the basis for effective information sharing. This, in turn, paves the way for the dissemination and utilization of information among members of a group. They continued to insist that the group's potential for success could be improved by exchanging information and putting it to use.

According to Zhong et al. (2012), transcranial magnetic stimulation (TMS) is an effective method for processing information and has the potential to lead to improved group outcomes. They found that transcranial magnetic stimulation (TMS) had an effect on group outcomes and that this effect was brought about by group efficacy after they investigated the link between TMS and group outcomes. In conclusion, a review of previous research reveals that TMS enhances group performance by facilitating the sharing of information and processing of that information. For the most part, prospective tourists rely on their own experiences and prior knowledge when searching for tourism information; however, when this is insufficient, they look to additional sources such as the internet, tourism agencies, books, and friends (Kim et al., 2007). For instance, users of social media can disseminate information by connecting to or transmitting other people's articles that have been published on Instagram or Twitter. In addition, social media platforms do constitute an independent source of information regarding tourism (Xiang and Gretzel, 2010). As a consequence of this, social media is seen as a type of group for sharing tourism information and has the potential to be used as a TMS.

Social media as a tourism information search medium

One way to think of social media is as internet-based apps that bring consumer-generated content in the form of media impressions generated by consumers and commonly informed by relevant experience. This content is then archived or posted online for the convenience of other users who have the potential to exert influence (Xiang & Gretzel, 2010). According to the findings of this investigation, social media are defined as internet-based applications that run on the Web

2.0 platform and make it possible for groups of people anywhere in the world to share their ideas, thoughts, experiences, points of view, and information while also forming relationships with one another (Chan & Guillet, 2011). Social media platforms offer users a venue that makes it easier for them to interact with one another and search for information. As a direct result of this, an increasing number of people believe that using social media platforms can be beneficial to their lives.

In the past, travelers would also consult travel publications like magazines and newspapers, as well as books, to obtain the information they required. However, over the past fifteen years, a significant number of these more conventional media sources have been supplanted. The tourism industry can change its traditional internal and external company operations thanks to social media. Nowadays, tourism is more about being holistic information providers who exchange their travel experiences beyond simply information processing (Sigala et al., 2012). Numerous tourism businesses have started to incorporate the expanding range of social media platforms that can be accessed via smart devices. These platforms offer a broad variety of services that are related to tourism, such as locating locations for tourism activity through travel information investigations. As a result, it is essential to have an understanding of how the output, distribution, and availability of tourism information are affected by changes in both technological advances and the behaviors of tourists (Xiang & Gretzel, 2010).

According to Parra-López et al. (2011), social media has grown into a wide range of social network services, such as Instagram, Line, and Facebook, which enable people from different locations to develop relationships and share their experiences with tourism through posting photos and videos. Some examples of these services include Instagram, Line, and Facebook. This information can be obtained whenever it is most convenient for the potential tourist, and it is very helpful. Applications for social media platforms that are related to tourism can be used on mobile devices to find additional information that is related to tourism (Xiang & Gretzel, 2010). A tourist will use social media to search for knowledge and connect with other members of the group if he or she wishes to learn about the experiences that others have had in and around a particular destination.

Conclusion

Tourism marketers should pay attention to such formal communications as posting in chat groups, but also in informal communication such as replies and private messages. Tourism marketers should also be able to facilitate members who ask for private messages or replies. Marketers can also directly share information individually, which can also generate a sense of privilege that is almost the same as formal communications to members who obtain information.

References

- Chaiken, S. & Trope, Y. (1999). *Dual process theories in social psychology*. New York: Guilford Press.
- Chan, N. L., & Guillet, B. D. (2011) Investigation of social media marketing: How does the hotel industry in hong kong perform in marketing on social media websites? *Journal of Travel and Tourism Marketing*, 28, 345-368. <https://doi.org/10.1080/10548408.2011.571571>
- Choi, J. K., Jeon, Y. C., Lee, D. W., Oh, J. M. et al. (2010). A Drosophila model of GSS syndrome suggests defects in active zones are responsible for pathogenesis of GSS syndrome. *Hum. Mol. Genet.*, 19(22), 4474--4489.
- Chung, N., Lee, S., and Han, H. (2015). Understanding communication types on travel information sharing in social media: A transactive memory systems perspective. *Telematics and Informatics*, 32, 564-575. <https://doi.org/10.1016/j.tele.2015.02.002>
- Dittrich, Y., & Giuffrida, R. (2011). Exploring the role of instant messaging in a global software development project. *2011 Sixth IEEE International Conference on Global Software Engineering*, 103-112. <https://doi.org/10.1109/ICGSE.2011.21>
- Gursoy, D., & McCleary, K. W. (2004). An integrative model of tourists' information search behavior. *Annals of tourism research*, 31(2), 353-373. <https://doi.org/10.1016/j.annals.2003.12.004>
- Huang, Y., Basu, C., and Hsu, M. K. (2010). Exploring motivations of travel knowledge sharing on social network sites: An empirical investigation of US College Students. *Journal Hospitality Marketing Management*, 19(7), 717-734. <https://doi.org/10.1080/19368623.2010.508002>
- Jackson, P. (2011). Requirements for an information system to support transactive memory. *VINE*, 41(4), 401-427. <https://doi.org/10.1108/03055721111188511>
- Kim, D. H., Jang, S. C., & Adler, H. (2015). What drives café customers to spread eWOM? Examining self-relevant value, quality value, and opinion leadership. *International Journal of Contemporary Hospitality Management*, 27(2), 261-282. <https://doi.org/10.1108/IJCHM-06-2013-0269>

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- Kim, D., & Benbasat, I. (2006). The effects of trust-assuring arguments on consumer trust in internet stores: Application of toulmin S model of argumentation. *Information Systems Research*, 17, 286-300. <https://doi.org/10.1287/isre.1060.0093>.
- Kim, J., Kwon, Y. & Cho, D. (2011). Investigating factors that influence social presence and learning outcomes in distance higher education. *Computers & Education*, 57(2), 1512-1520.
- Mulyana, D. (2008). *Ilmu komunikasi: Suatu pengantar*. Bandung: Remaja Rosdakarya
- Parra-López, E., Bulchand-Gidumal, J., Gutiérrez-Taño, D., & Díaz-Armas, R. (2011). Intentions to use social media in organizing and taking vacation trips. *Computers in human behavior*, 27(2), 640-654. <https://doi.org/10.1016/j.chb.2010.05.022>
- Sigala, M., Christou, E., & Gretzel, U. (2012). *Social media in travel, tourism and hospitality: Theory, practice and cases*. Ashgate Publishing, Ltd.
- Sugiyono. (2012). *Metode penelitian kuantitatif kualitatif dan R&D*. Bandung: Alfabeta
- Wegner, D. M. (1987). Transactive memory: A contemporary analysis of the group mind. In: *Theor. Group Behaviors*. New York: Springer.
- Wegner, D. M., Giuliano, T., & Hertel, P. T. (1985). Cognitive interdependence in close relationship. In: *Compatible and Incompatible Relationships*. New York: Springer.
- Wilson, J. M., Marin, P. J., Rhea, M. R. et al. (2012). Concurrent training: a meta-analysis examining interference of aerobic and resistance exercises. *J Strength Cond Res.*, 26(8), 2293-307.
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, 31(2), 179-188. <https://doi.org/10.1016/j.tourman.2009.02.016>.
- Zhang, L.-L., & Huang, R. M. (2013). A critical analysis of environment designing for mobile learning. *Modern Educational Technology*, 23, 115-119.
- Zhong, L.-M., Zong, Y., Sun, L., Guo, J.-Z., Zhang, W., He, Y., et al. (2012). Resveratrol inhibits inflammatory responses via the mammalian target of rapamycin signaling pathway in cultured LPS-stimulated microglial cells. *PLoS ONE*, 7(2), e32195. <https://doi.org/10.1371/journal.pone.0032195>