The Mediating Role of Social Media in Enhancing Organizational Performance: A Team Creativity Perspective

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Abstract

In today’s competitive business environment, it is insufficient for organizations to depend only on the strengths of individual employees to respond to the ever-changing market trends and demands. To optimize their competitiveness, organizations increasingly recognize the importance of leveraging individuals’ skillset and competencies in teams via social media. The increasing reliance on teams to achieve innovation performance urges the academic and professional circles to better understand the preconditions that facilitate innovation performance in teamwork settings. Over the past decade, user engagement via social media has exponentially increased. Social media is regarded as an effective and efficient tool that facilitates transparent, formal, informal, relaxed, and/or personal communication in teams. In this study, we investigate the impact of social media on organizational performance from a team creativity perspective. We focus on studying the mediating role of social media in supporting team creativity.

Keywords: Team creativity, Social media, Trust, Team collaboration, Team conformity pressure

Introduction

In today’s hyper-competitive business environment, it is no longer sufficient for organizations to depend only on the strengths of individual employees to respond to the ever-changing market trends and demands (Knight and Harvey 2015). To maximize their competitiveness, organizations increasingly recognize the importance of leveraging individuals’ skillset and competencies through teams (Shen and Chen 2007) via social media (SM) engagement. Teams are actually considered the building blocks of organizations and thus organizations encourage cross-functional collaboration in response to the changing product development (Sundstrom et al. 1990). When teams use SM, organizations can increase the intra- and inter-organizational exchange of knowledge and resources sharing, which crucial for innovation performance.

The increasing reliance on teams to achieve innovation performance urges scholars and practitioners to understand the preconditions that facilitate innovation performance in teamwork settings. With teams
Social Media in Enhancing Organizational Performance

progressively more diversified and cosmopolitan, managers nowadays face the challenges of managing such teams, which are associated with cultural diversity, ethnicity, nationality, and mindset differences (Horwitz and Horwitz 2007). Prior research has shown that team creativity is affected by leadership, cohesiveness, group longevity, group composition, and group structure (e.g., Anderson and Fiedler 1964; Shin and Zhou 2007; Sosik et al. 1998).

Over the past decade, user engagement via SM has exponentially increased. Prior research has investigated the impact of SM on organizational performance from the perspectives of both customers and employees. It has been shown that SM has impact on organizational equity (Luo et al. 2013), online sales (Chen et al. 2015), open innovation (Dong and Wu 2015; Leonardi 2014), and job performance (Ali-Hassan et al. 2015). Furthermore, SM facilitates transparent, formal, informal, relaxed, and/or personal communication in teams (Jacqueline et al. 2017).

Prior research on the impact of SM on organizational performance provides valuable implications and stresses the importance of SM for knowledge sharing and organizational innovation. However, we know little about the underlying mechanism that help SM employees contribute to organizational performance. Moreover, only few studies looked at the impact of SM on team creativity in organizational settings. Therefore, in our study, we investigate the impact of SM on organizational performance from a team creativity perspective. More specifically, we focus on studying the mediating role of SM in supporting team creativity.

Literature Review

Social Media in Organizations

In the past decade, user engagement via SM has increased dramatically. Prior research in the field of IS has put significant time and effort to examine the impact of SM in organizations from the customer perspective. Luo et al. (2013) found that SM-based metrics (e.g., Web blogs and consumer ratings) are significantly better indicators of organizational equity value relative to the conventional online behavioral metrics (e.g., Google searches and Web traffic). Results also showed that SM has a faster predictive value, i.e., shorter “wear-in” time, than conventional online media. Chen et al. (2015) examined the relationship between broadcasting promotions in SM and music sales, while controlling for influential factors such as advertising in traditional media channels, album prices, new music releases, user-generated content, and artist popularity.

These studies investigate the impact of SM on consumers’ purchase behavior. Taking into consideration the findings of these studies, marketing managers in organizations have developed brand communities around SM to engage consumers and increase information flows (Goh et al. 2013; Rishika et al. 2013), which in turn may have positive impact on organizational performance and innovation. Moreover, Dong and Wu (2015) argued that the key to value creation in open innovation initiatives is to develop the capability for managing the ideas collected from online user innovation communities. Prior research on the impact of SM on organizational performance provides valuable implications and emphasizes the importance of SM for knowledge sharing and organizational innovation. However, the underlying mechanism explaining how SM helps employees contribute to organizations are still underexplored. Hence, in this study, we focus on investigating the impact of SM on organizational performance from a team creativity perspective.

Team Creativity

There are three levels of creativity: individual, team, and organizational levels. Team creativity is defined as the integration of individual expertise and creativity (Taggar 2002). It typically acts as a bridge that links individual and organizational creativity (Woodman et al. 1993). Previous studies showed that team creativity is correlated to leadership, cohesiveness, group longevity, group composition, and group structure (e.g., Anderson and Fiedler 1964; Shin and Zhou 2007; Sosik et al. 1998). For example, leadership style and intelligence of group leaders have been found to influence team creativity (Anderson and Fiedler 1964). In a similar manner, transformational (Shin and Zhou 2007) and inspirational leadership (Sosik et al. 1998) have a positively effect on team creativity.
The quality of intra-team relationships was also found to be positively correlated to team creativity through expertise integration (Tiwana and Mclean 2005). Good relations among team members can improve knowledge flows, intra-team communication, and interpersonal exchange; thus, leading to greater team creativity. Group composition and structure are also related to team creativity (Hülsheger et al. 2009). For example, Collaros and Anderson (1969) found that the originality and practicality of ideas was inhibited when the perceived expertise of other team members was high. Similarly, group stability has a positive influence on creativity (Ziller et al. 1962). These studies have laid the foundation of the team creativity literature. However, few of them have investigated the influence of SM on team creativity in organizational settings. Hence, we investigating the mediating role of SM in supporting team creativity.

**Research Model and Hypotheses Development**

Trust is defined as “one party’s willingness to be vulnerable to another party based on the belief that the latter party is competent, open, concerned, and reliable” (Mishra 1996, p. 265). In interpersonal relationships, the structure of trust can be either rooted in rationality or emotion (McAllister 1995). When trust is rooted in cognitive basis then an individual considers rational reasons to trust other party, which largely dependent on the consistency of other party’s words and behaviors. For example, trust has a cognitive basis when an individual believes that the other side will fulfill his or her task, role or duty properly. On the other hand, when a mutual relationship intensifies and parties make emotional investments then trust deepens, having an affective basis (McAllister 1995). Thus, cognitive trust is more important at the beginning of a relationship, while affective trust is more crucial as the relationships further develops and intensifies.

Building teams with high performance, which can successfully complete their challenging and dynamic tasks, is highly dependent on the levels of solidarity and cooperation between team members. Trust provides an atmosphere of psychological safety for all team members, which encourages team members to be open to criticism, openly discuss mistakes, and express thoughts freely (Edmondson 1999).

More importantly, SM is recognized as an effective and efficient communication tool that can facilitate transparent, formal, informal, relaxed, and/or personal communication in teams (Jacqueline et al. 2017). Furthermore, Hossain and Wigand (2004) found that ICT enabled virtual collaboration enabled through trust. Hence, we believe that teams with high levels of cognitive and affective trust encourage use of SM for communication and interactions amongst team members. Therefore, we hypothesize:

- **H1a:** Affective trust in a team increase SM usage amongst team members.
- **H1b:** Cognitive trust in a team increase SM usage amongst team members.

Collaboration is defined as the “as an evolving process whereby two or more social entities actively and reciprocally engage in joint activities aimed at achieving at least one shared goal” (Bedwell et al. 2012, p. 130). Collaborative teamwork is characterized with high acceptance and support among members, decreased fear of failure, and a problem-solving orientation to conflict. In collaborative teams, members are more willing to help each other because they have a perception that all are working towards a same goal (Cheruvellil et al. 2014).

Using SM in teams can further increase the collective sense of belonging, acceptance, and support through more frequent interactions. SC can therefore facilitate the development of collaborative norms and atmosphere in a team. In the group formation model, a norm stage follows a storming stage that needs to deal with conflicts (Robbins and Judge 2011). In the occurrence of conflict in a team, additional communication via SM may help team members to reduce face-to-face pressure and quickly resolve the conflict, which can accelerate the transition from norming to storming stages, enabling a consensus to be achieved so that collaboration can take place.

Schlagwein and Hu (2017) revealed that internal collaboration via SM takes advantage of SM’s low barriers to co-create content in which participants contribute in collaborative discussions due to the ease of editing content and informal atmosphere. Similarly, external collaboration via SM happens when organizations collaboratively troubleshoot issues for particular products or services with their customers. Thus, we hypothesize that:
H2a: SM usage in a team increases the collaboration facilitation of the team.

Conformity is the act of matching attitudes, beliefs, and behaviors to group norms (Cialdini and Goldstein 2004). Norms can be implicit or explicit and shared by a group of individuals that guide their interactions. Individuals often decide to conform to group, team, or society rather than to pursue personal desires because it is often easier to copy the answer of others rather than think about a new one on your own (Asch 1956). Conformity can occur in small groups and/or society as a whole, and may result from indirect unconscious influences or direct social pressure. The act of conformity can also happen in the presence of others or when an individual is alone (Cialdini and Goldstein 2004).

SM usage can help reduce the conformity pressure in teams. Virtual meetings have lower levels of social pressure than most face-to-face group decision-making techniques (Robbins and Judge 2011). Correspondingly, using SM for communication and interactions with team members, which usually does not necessitate a physical presence, can also reduce the conformity pressure and encourage freer expression (Yoo et al. 2014). That is, in SM-enabled team discussions, different opinions will be more tolerated and supported, because team members do not necessary feel pressure to conform to others or to follow others’ opinions. Therefore, we hypothesize that:

H2b: SM usage in a team decreases the conformity pressure amongst team members.

Prior literature has shown that collaboration enhances innovation and team creativity (e.g., Rodríguez and Nieto 2012; Wang 2016). Collaborative atmosphere and norms reduce the fear of failure and encourage innovative, risky ideas. In such environment, team members are likely to be more tolerant and accept divergent ideas, allowing for viewpoints free of negative criticism, ridicule or fear (Schuckert et al. 2018). The more tolerant a team is, the safer its members will feel when communicating and expressing ideas. A collaborative team environment therefore increases the tendency of team members to take risks and share ideas, resulting in increased team creativity and innovation (Shalley and Gilson 2017).

A collaborative culture enables members to freely share resources and ideas with others. Gopal and Gosain (2010) argued that collaborative exchanges can leverage the competence of each member in their area of expertise, and bring it to bear on relevant task activities. Furthermore, individuals may exhibit high levels of creativity when they have nurturing and supportive team members, as collaborative behavior increases their intrinsic motivations (Shalley and Gilson 2017). Thus, we hypothesize that:

H3a: Collaboration facilitation in a team increases team creativity.

Previous studies have provided support that a strong climate supportive of innovation subsequently leads to higher rates of innovation (e.g., González-Romá et al. 2009). Schneider et al. (2002) defined and measured climate strength as the degree of agreement around a particular belief; the higher the level of agreement, the stronger the climate. However, agreement alone is not a proxy for conformity pressure (Allen 1965); that is, teams may also reach agreement because team members believe the majority point of view is accurate and not because they fear the threat of social sanctions (Deutsch and Gerard 1955).

Miron et al. (2004) examined conformity to rules and teams, and found that they are negatively associated with innovation. The controlling behavior of supervisors can inhibit employee creativity (Zhou and George 2003). More specifically, generating creative ideas is not a routine activity; hence, pressure to conform to a majority can inhibit creative expression. Team creativity is encouraged through challenging the majority and proposing diverse opinions (Farh et al. 2010). Therefore, we propose that reducing such pressure will encourage team members to express their own thoughts and deliver new ideas, which may increase the likelihood of innovation. We thus hypothesize:

H3b: Conformity pressure reduction in a team increases team creativity.
Research Methodology

Data Collection Plan

We first conducted a small-scale pilot study that is intended to confirm the measurement of the constructs and preliminarily test part of the model. Cross-sectional data have been collected from 150 employees from companies in Mainland China using a reflective questionnaire. The future study will involve collecting a large-scale sample from Hong Kong and Mainland China, using longitudinal rather than cross-sectional data to test the causal relationship in the hypotheses. Data will be collected at individual and team levels from different respondents to reduce the common method bias. We will contact around 50 companies in Hong Kong and mainland China, sending them a covering letter outlining our research objectives and offering to send them a summary report of the results if they are interested. Two months later, we will have the second round of data collection. A small participation incentive will be provided for both rounds of data collection. SmartPLS 2.0 was used to perform statistical analysis in our study. SmartPLS is a structural equation modeling (SEM) tool widely used in IS research.

The convergent validity and discriminant validity of the constructs in our model were examined. Convergent validity was tested using three criteria for all constructs: (1) the composite reliability (CR) should be at least 0.700 (Chin 1998); (2) the average variance extracted (AVE) should be at least 0.500 (Fornell and Larcker 1981); and (3) all item loadings should be greater than 0.707 (see Table 1). The three conditions of convergent validity were satisfied in our data sample with the CRs ranging from 0.872 to 0.966, and the AVEs from 0.771 to 0.876. The item loadings were all higher than the 0.707 benchmark.

Table 1. Factor Loading and Reliability of Constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive trust (CT)</td>
<td>0.940</td>
<td>0.789</td>
<td>0.920</td>
</tr>
<tr>
<td>Affective trust (AT)</td>
<td>0.943</td>
<td>0.770</td>
<td>0.925</td>
</tr>
<tr>
<td>Social media usage (SMU)</td>
<td>0.938</td>
<td>0.791</td>
<td>0.911</td>
</tr>
<tr>
<td>Collaboration facilitation (CF)</td>
<td>0.926</td>
<td>0.758</td>
<td>0.893</td>
</tr>
<tr>
<td>Conformity pressure reduction (CPR)</td>
<td>0.933</td>
<td>0.778</td>
<td>0.904</td>
</tr>
<tr>
<td>Team creativity (TC)</td>
<td>0.930</td>
<td>0.768</td>
<td>0.899</td>
</tr>
</tbody>
</table>

Measurement model

Reliability and validity tests were conducted for measurement model verification. The reliability was tested using Cronbach’s Alpha and composite reliability (CR). The internal consistency of a construct can be ascertained if Cronbach’s Alpha and CR are both above 0.700. The two conditions of reliability were satisfied in our data sample, as the CRs ranged from 0.926 to 0.943, and the Cronbach’s Alpha from 0.893 to 0.925.

Discriminant validity is the degree to which the measures of two constructs are empirically distinct. Discriminant validity between constructs can be verified if the square root of the AVE for each construct is greater than the correlation between constructs (Fornell and Larcker 1987). The square root of AVE for each construct was greater than the correlations between the construct and all other constructs (see Table 2). Therefore, the results suggest adequate discriminant validity.

Table 2. Discriminant Validity (Diagonal elements are square roots of the average variance extracted)

<table>
<thead>
<tr>
<th></th>
<th>CT</th>
<th>AT</th>
<th>SMU</th>
<th>CF</th>
<th>CPR</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td></td>
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<tr>
<td>AVE</td>
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<tr>
<td>Correlation</td>
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</table>
Structural model

The results indicate that collaboration facilitation and conformity pressure reduction have a significant effect on team creativity, with path coefficients of 0.409 (p < 0.001) and 0.438 (p < 0.001), respectively. Hypotheses 3a and 3b are supported. SM usage has a strong significant effect on collaboration facilitation and conformity pressure reduction, with path coefficients of 0.374 (p < 0.001) and 0.370 (p < 0.001), respectively. Hypotheses H2a and H2b are supported. Affective trust showed a significant effect on SM usage, with path coefficients of 0.335 (p < 0.01). H1a is supported. The control variables (i.e., gender, education, age, tenure, and income) were found to be insignificant. However, cognitive trust doesn’t show significant effect on SM usage. Therefore, H1b is not supported. Overall, the whole model explains 63.1% of the variance in team creativity (see Figure 1).

Discussion

The objective of this study was to investigate the mediation role of SM in improving team creativity in organizational settings. Our preliminary findings suggest that SM usage partly mediates the relationship between interpersonal trust and teamwork environment. That is, whenever team members have feelings of emotional closeness, empathy or friendship, they are more likely to use SM for knowledge sharing in teamwork environment. This in turn contributes to development of collaborative norms and atmosphere that promote (1) tolerance and acceptance of divergent ideas and (2) disclosure of viewpoints free of negative criticism, ridicule or fear.

In such collaboration-driven environment free from conformity pressures, team members are more likely to come up with new and practical ideas when solving problems or quickly develops new methods and procedures related to a particular task or set of tasks. In addition, our preliminary findings reveal that cognitive trust does not have does not significant effect on SM usage in teamwork settings. This indicates that team members’ beliefs about one’s reliability, dependability, and competence for completing a particular task or set of tasks are not critical for the decision of whether engage SM for team communication. The latter result is possible because employees are usually allocated to teams in which members are carefully selected for their skillset and potential contribution to the project; thus, there is no need for team members to test others and develop trust in competencies to work on a project because this has already need done so before the formation of the team.
Limitations and Future Work

This study has limitations that will be considered in our future work. First, the sample size of this study is relatively small and may not be representative of different national or organizational cultures. Thus, our future work will make use of a larger sample size and a more representative sampling strategy, including small and medium-sized enterprises, medium enterprises, and corporations in Hong Kong. Second, despite the various advantages of working with quantitative cross-sectional data, the taken research approach in this study can be limited in its capacity to reflect real life conditions in teamwork environment. Third, future studies will should consider the team size, organizational size, and teamwork specification, and national culture variables that influence team creativity. Hence, our future research will plan to design a field experiment to provide a more realistic testing of the teamwork environment, which makes use of objective data from SM for the manipulation of constructs.

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References


