The Impact of Enterprise Social Media Identity on Job Performance and Job Satisfaction

Completed Research

Rasha Alahmad
University of Michigan
rashama@umich.edu

Casey Pierce
University of Michigan
cbspierce@umich.edu

Michelle Carter
Washington State University
Michelle.carter@wsu.edu

Lionel Robert
University of Michigan
lprobert@umich.edu

Abstract

Although organizations are increasingly employing enterprise social media (ESM) as a collaborative technology to help workers to accomplish their work, we know very little about the impact of this technology on job performance and job satisfaction. This paper draws on IT identity theory to understand just how ESM identity impacts co-worker support, job performance, and job satisfaction. ESM identity is defined as the extent to which a worker views use of ESM as integral to his or her sense of self. This paper has two objectives: 1) to examine the impact of ESM identity on co-worker support; 2) examine the impact of ESM identity on job performance and job satisfaction via co-worker support. When conducting a survey to test our model of ESM identity, we found that ESM identity positively impacts co-worker support. Further, co-worker support mediates the relationship between ESM identity and job performance and job satisfaction.

Keywords

Enterprise social media, co-worker support, job performance, job satisfaction

Introduction

Enterprise social media is an integrated social media platform used for internal communication and social interaction among workers within the organization (Leonardi, Huysman, & Steinfield, 2013). Recently, ESM tools such as Facebook at Work, Slack, and Yammer have made their way into organizational life. Although ESM has become increasingly embedded in organizational practices, questions still remain about the benefits on worker’ outcomes. According to some researchers, ESM enhances job performance and job satisfaction (Li, 2010; Lu, Guo, Luo, & Chen, 2015; Salehan, Kim, & Kim, 2017), while others consider ESM as a threat to workers’ performance and productivity (Shepherd, 2011).

One question concerning ESM and workers’ outcomes that has not been examined is the role of identity. Several studies have shown that identity is one of the essential motivators of individuals' behavior (Terry et al., 1999; Theodorakis, 1994). Carter and Grover (2015) argue that infusion of technology into various aspects of daily life leads to developing a new type of identity— IT identity. It is defined as "the extent to
which an individual views [the] use of an [information technology] IT as integral to his or her sense of self” (p.931). The person who identifies herself with an IT does not distinguish between personal resources attributed to the self-concept and the utilities afforded by the technology. Identifying the self with an IT is also motivates individuals to actively seek out opportunities to use it in various situations.

Prior research would seem to suggest that the benefits associated with the effects of identity on ESM are likely to occur as the result of co-worker support. ESM is a social technology that allows workers to connect and interact with other co-workers. In fact, support from other co-workers is one of the most important benefits of social media (Park, Kee, & Valenzuela, 2009). Support from co-workers provides both work advice and social support, which motivates workers to use ESM (Fay & Kline, 2011).

This leads us to the following research question: what impact does identifying the self with ESM— that is, ESM identity- exert on the co-worker support and to what extent does ESM-mediated help from co-workers influences job performance and job satisfaction? To answer this question, we conducted a survey study on Amazon Mechanical Turk (MTurk). The results of this study reveal that ESM identity positively impacts on co-worker support. Moreover, ESM identity has a significant positive effect on job performance and job satisfaction through the mediation of co-worker support. This paper contributes to the literature in several ways. First, our study sheds light on the importance of incorporating ESM’s features into the self-concept on the workers’ job performance and job satisfaction. Second, the study finds out that co-worker support via ESM is an important mediator of the relationship between ESM identity and job performance and job satisfaction. Finally, our study captures a new impact of ESM usage on job performance and job satisfaction.

This paper is organized as follows. First, we present ESM identity and ESM as a theoretical foundation of our work. We then develop a theoretical framework and present some hypotheses. After that we discuss the method, results, contributions and limitations of our study.

**Related Works**

**Enterprise social media**

ESM mimics in features and look the public social media services such as Twitter and Facebook (Treem & Leonardi, 2013). For example, ESM allows workers to build profiles and maintain social relationships, share information and knowledge, and publish posts. ESM is a platform which facilitates organizational communication such as collaboration and information exchange among workers. Specifically, Leonardi et al., (2013) note how ESM

“allow workers to (1) communicate messages with specific co-workers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular co-workers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organization at any time of their choosing” (p.2).

ESM affordances empower workers to create and distribute their content in the organization, identify relevant content and locate expertise, and provide access to a large network of heterogeneous contacts (Steinfield, DiMicco, Ellison & Lampe, 2009).

**IT identity**

Most of scholarly work in identity and technology at the workplace centers around one of four themes: technology impacts on identity formation, technology impacts identity construction through work practices, technology is an identity for the worker, and lastly technology as a part of the extended self (Stein, Galliers, & Markus, 2013). With the proliferation of technology into every facet of daily life, the sense of self has become increasingly linked to interacting with the technology (Carter, Grover, & Thatcher, 2013). In fact, the relationship between technology and the self has become so close that Carter and Grover (2015) assert that IT is identity—that is has become almost impossible to distinguish between one’s personal resources and resources afforded by technology. In this state, IT is integral to being who one is — i.e., a person has an IT identity, meaning that s/he identifies with the technology. Viewing
technology capabilities as a critical source of the self-concept is a new approach to understanding identity that takes into account a person’s attitude toward herself in models of IT use behavior.

IT identity has three dimensions: relatedness, emotional energy, and dependence (Carter & Grover, 2015). Relatedness refers to the degree of blurring boundaries between notions of the self and an IT that are experienced as feelings of connectedness with an IT (Carter & Grover, 2015). The second dimension of IT identity, emotional energy, refers to one’s feelings of emotional attachment and enthusiasm in relation to the IT (Carter & Grover, 2015). Successful experiences with technology enhance lead to greater confidence in interacting with the IT, which creates greater emotional attachment and enthusiasm for interacting with the technology; however, less successful experiences result in weaker emotional bonds with IT. The last dimension of IT identity is the degree of reliance upon an IT (Carter & Grover, 2015). Viewing a certain technology as part of the self-concept, is expressed as a feeling of reliance on use of the technology. Identification with the IT is reflected in all of these dimensions. Thus, those whose prior interactions with an IT have resulted in high emotional energy, relatedness, and dependence are more likely to use it as much as they can.

In recent years, studying the relationship between the role of identity and organizations has become increasingly popular among information systems (IS) researchers (Gal & Kjærgaard, 2009). This implies that identity plays an important role in IS studies. However, most of studies and particularly ESM studies, investigate identity and workers independently and not as a one integrated entity. Using the IT identity concept may help to further understand the mutual relationship between workers and technology in the workplace and illuminate how ESM might be used as a source of worker identity, particularly with respect to its impact on work-related outcomes.

**ESM Identity**

In our study, ESM identity is defined as the extent to which a worker views use of ESM as integral to his or her sense of self. Identification occurs as characteristics of the technology are incorporated into the self-concept. When a worker identifies herself with ESM, she considers the characteristics of the technology as an integral part of who she is (Carter & Grover, 2015). The meaning attributed to a certain technology determines the nature of the relationship and level of performance. Prior work such has reported that attributing a special meaning to an EPA Robot leads to the formation an emotional bond with the robot and enhances team work performance (You & Robert, 2017), while other work proposes that identification with cell phones promotes emotional attachment (Carter et al., 2013). This emotional attachment then fuels the investment of energy into new activities to explore the technology and accomplish objectives (Schere & Tran, 2003).

Treem and Leonardi (2013) identified four affordances that emerge from ESM use at the workplace: editability, association, visibility, and persistence. These affordances act like capabilities that can be incorporated into the self-concept. For instance, editability refers to the ability to devote enough amount of time and effort to craft the content before sending (Treem & Leonardi, 2013). This utility affords workers the opportunity to reflect the ideal image of self. It allows workers to tailor and deliver the self-definition that they want others to infer about them in the workplace. Association affordances refers to the social connections between workers (Treem & Leonardi, 2013). ESM encourages emerging new connections with co-workers who are not included in the communicative action. Ongoing interactions among workers via ESM reveal potential friends and knowledge. All of these help workers to enhance their performance and awareness of valuable resources at the workplace. Visibility is one of the important affordances of ESM. It provides workers the opportunity to make their contributions, preferences, knowledge, and organizational connections are visible to other workers (Treem & Leonardi, 2013). Identifying the self with ESM, helps workers to convey who they are. The last ESM affordance is persistence which means that prior personal contributions in ESM remain permanently accessible (Treem & Leonardi, 2013). Considering persistence affordances as part of the self-concept, helps workers to maintain the self-definition by linking who they are in the past with the present.

**Co-worker support**

Co-worker support has been defined as the degree to which workers receive informational, emotional, and instrumental support from other colleagues (Ellis & Miller, 1994). This definition is one of the most
comprehensive definitions because it involves varied aspects of co-worker support. Support from co-workers serves both emotional and informational functions (Ducharme & Martin, 2000). Co-worker support, particularly informational support, helps to reduce uncertainty and role ambiguity within the organization (Albrecht & Adelman, 1987). All of these effects have a meaningful impact on job performance. Co-worker support also provides emotional resources help workers to cope with workplace difficulties. Researchers have explained how co-worker support particularly emotional support enhances well-being and reduces negative feelings (Badura & Waltz, 1984). All of these factors are known to have a significant impact on job satisfaction.

ESM enables workers to internally communicate with others through commenting, messaging, and personal profiles. This type of technology affords workers new modes of interaction, which are visible, editable, and sustained, and gives them the opportunity to present themselves in a selective manner (Majchrzak et al., 2013). Due to the high visibility of behavior and contributions on this type of platforms, workers who view ESM as an integral part of who they are can be easily identified by co-workers, and thus are more able to receive support from other colleagues.

**Research Model**

To understand the impact of ESM identity on job performance and job satisfaction and the role of co-worker support in mediating the relationship, we developed a theoretical research model, Figure 1. This model demonstrates the relationship of ESM identity and co-worker support to job performance and job satisfaction.

![Figure 1: Research Model](image)

**ESM Identity and Co-worker Support**

We hypothesize that workers who strongly identify themselves with ESM are more likely to receive support from their colleagues. According to IT identity theory, when someone identifies with a technology, the self-concept expands to incorporate the resources offered by that IT as personal resources. Strongly identifying the self with an IT promotes a high degree of emotional energy, relatedness, and dependence in relation to it. A study conducted by Carter et al. (2013) finds that, upon being prevented from using their cell phones, many participants felt like they were missing a critical part of their self-concept. Furthermore, those who strongly identified themselves with their devices, experienced more emotional distress than their counterparts.

Previous studies argue that the social media affordances shape how individuals engage in positive self-presentation (Zhao, Grasmuck, & Martin, 2008). In this way, the workers who attribute a special meaning to their interaction with ESM, are more likely to engage in positive self-presentation which in turn motivates others to interact and support them. Individuals who consider ESM’s capabilities as part of who they are, continuously seek to expand their social interaction boundaries via networking with others. Some scholars argue that central workers—who have a high number of direct and indirect links in a social network—in many situations are valued as a potential source of future assistance (Sparrowe, Liden, Wayne, & Kraimer, 2001) which in turn may encourage others to interact and support the person who strongly rely on ESM. Thus, we hypothesize that:
H1- Identification with ESM in the workplace is positively related to co-worker support. 

Below we argue that ESM identity will impact job performance and satisfaction via co-worker support. Identification with ESM will be associated with increases in co-worker support. Co-worker support will facilitate better job performance and satisfaction. In doing so, this paper will anchor the arguments from H1 above.

**ESM identity, co-worker support and job performance**

We also propose that the impact of ESM identity on job performance is mediated by co-worker support. Fong (1992) finds that top performers tend to receive more support from others at the workplace. Baldwin, Bedell, and Johnson (1997) argue that relying on an advice network helps individuals accumulate knowledge about task-related problems. Knowledge and support from others are important to worker’s performance and success. Karasek, Triantis, and Chaudhry’s (1982) work demonstrates that co-worker support affects job performance by buffering the negative effects of highly demanding jobs.

Additionally, prior research asserts that ESM in particular affects job performance through ESM-mediated help from co-workers. Co-worker support in social media at the workplace makes workers feel connected to each other and encourage them to use social media more (Fay & Kline, 2011). The ties developed among individuals through networking are a valuable source that can be used by individuals to perform their jobs. Scholars have argued that social media in the workplace enhances knowledge sharing. By sharing knowledge, workers can learn from each other which in turn serves to improve worker performance (Kang, Kim, & Chang, 2008; Kwahk & Park, 2016).

Considering the above arguments as well as the prior literature we propose that the effects of ESM identity on job performance should occur through co-worker support. Thus, we hypothesize the following:

H2-Co-worker support mediates the positive relationship between ESM identity and job performance.

**ESM identity, co-worker support and job satisfaction**

Job satisfaction is one of the most researched topics in management studies. Job satisfaction is defined as “the attitude of workers toward the company, their job, their fellow workers and other psychological objects in the work, environment” (Beer, 1964, p. 34). Of these three types of job satisfaction, and in this paper we aim to investigate the affect job satisfaction since it is the most relevant perception to social media-mediated interactions in the workplace. Job satisfaction is important because it has been related to other critical organizational outcomes, such as minimizing absenteeism and turnover (Carsten & Spector, 1987).

We propose that the impact of ESM identity on job satisfaction is also mediated by co-worker support. The degree to which workers are satisfied or dissatisfied with their job largely depends on the interaction with their co-workers. Bateman (2009) argues that co-worker support encourages employees to discuss various ideas openly, which in turn promotes job satisfaction. It has been shown also that social relationships among workers positively impacts wellbeing and worker satisfaction (Teoh, 2010), reduces workers’ withdrawal and turnover intention (Iverson & Pullman, 2000). Perceiving high levels of support promotes emotional bonds between the recipient and the source(s) of support. These bonds lead to the development of a sense of social integration which in turn promotes worker attachment to the source of support in the workplace (Mossholder, Settoon, & Henagan, 2005).

Social support is one of the most important features that users receive from online social networking (Park, Kee, & Valenzuela, 2009). Prior research asserts that ESM impacts job satisfaction through help from co-workers. For instance, Oh, Ozkaya, and LaRose (2014) find that those who receive support from others via online social networks are more likely to be satisfied in their life. Moqbel, Nevo, and Kock (2013) argue that the use of social media in the workplace enhances job satisfaction as it helps employees receive social support from co-workers.

Just as we hypothesize that ESM identity will promote co-worker support and that co-worker support should promote job satisfaction, we further suggest that the effects on ESM identity on job satisfaction should occur through co-worker support. Thus, we hypothesize the following:

H3-Co-worker support mediates the positive relationship between ESM identity and job satisfaction.
Method

We conducted a survey through Amazon Mechanical Turk (MTurk). We had a total of 90 subjects. 30 of whom were female and 59 were male. Their ages ranged from 20 years to 61 years, with an average of 33 years.

Measurements

Independent variables

ESM identity was measured using a scale developed by Carter & Grover (2015). It consists of twelve items each was assessed on a 7-point Likert scale. ESM identity reflects three dimensions of self-identification with technology: emotional energy, relatedness, and dependence. Including all of these items helped us to accurately measure the true meaning that workers hold in relation to the ESM platform at the workplace. Sample items include: Thinking about myself in relation to my employer’s social media (i.e., Yammer, Chatter, IBM connection, Jive, Slack, etc.)...1) I need my employer’s social media, 2) I count on my employer’s social media, 3) I am dependent on my employer’s social media, 4) I am connected with my employer's social media.

Dependent variables

Job performance was measured using three items from Moqbel et al. (2013). Sample items include “I am very satisfied with my performance in my current job” and “My performance in my current job is excellent.”

To measure job satisfaction, we adapted three items from Cammann (1983). Sample items include “All in all, I am satisfied with my job” and “In general, I do not like my job”.

Co-worker support was measured using three items from Madjar, Oldham, and Pratt (2002). Examples items include “My co-workers are almost always supportive when I come up with a new idea about my job” and “My co-workers give me useful feedback about my ideas concerning the workplace.”

Analysis and Results

Evaluation of the measurement model involves two aspects: convergent validity and discriminant validity. Convergent validity is measured as the strength of relationship between the same construct measured with different participants. The convergent validity of the measurement can be examined by the Average Variance Extracted (AVE) and Composite Reliability (CR). As shown in Table 1, the reliability values are acceptable all being above .80. AVE measures the variance explained by a construct versus the level of measurement error. The AVE range from .70-.84, which is an acceptable level. Thus, the convergent validity is supported.

Discriminant validity (DV) is defined as the degree to which the measurements of different constructs are unrelated. Discriminant validity of the measure is demonstrated when the square root of the AVE for each variable is higher than its correlations with all other variables. Table 1 shows that the square root of AVE for each variable is higher than correlations among all constructs. Thus, the discriminant validity of our study is demonstrated.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Reliability</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESM identity</td>
<td>3.86</td>
<td>1.79</td>
<td>.97</td>
<td>.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-worker support</td>
<td>6.17</td>
<td>1.16</td>
<td>.85</td>
<td>.184*</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Performance</td>
<td>5.44</td>
<td>1.25</td>
<td>.94</td>
<td>.095</td>
<td>.537**</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>5.08</td>
<td>1.46</td>
<td>.87</td>
<td>.116</td>
<td>.382**</td>
<td>.566**</td>
<td>.83</td>
</tr>
</tbody>
</table>

Values on the diagonals represent the square root of the AVE for each variable.
Table 1: Descriptive Statistics and Correlations Among Constructs

Control variables

To better rule out alternative explanations, we controlled for demographic variables, such as gender, age, education, and race. We controlled for the number of years of employment in the current organization, as well as the duration, frequency, and intensity of ESM use. Each control variable was included in the model. None were found to be statistically significant.

Hypothesis testing

The hypotheses were tested by assessing the significance of the paths in the structural model. In our study, we employed the standard bootstrapping procedure by sampling 1,000 subsamples using SmartPLS 3.2.7. Figure 2 shows the results of model testing, where b indicates the standardized path coefficients of each path in the structural model.

To test our hypotheses, we performed three steps. First, we tested the direct effects of ESM identity on co-worker support. Second, we tested the effect of co-worker support on job performance and job satisfaction. Finally, we conducted the Sobel test to determine whether the indirect effects of ESM identity through co-worker support were significant.

Step 1, we examined whether ESM identity impacted co-worker support. There was a significant positive impact of identification with ESM on co-worker support (β = 0.261, standard error [SE]=.121, t=2.164, p < 0.05), which indicates that H1 was supported.

Step 2, we also examined whether co-worker support was associated with increases in job performance and job satisfaction. Co-worker was associated with increases in job performance (β = 0.577, standard error [SE]=.108, t=5.366, p<.001). Moreover, co-worker support did lead to increases job satisfaction (β = 0.446, standard error [SE]=.086, t=5.187, p<.001). Next, we discuss the test results of the mediation effects related to H2 and H3.

Step 3, the Sobel test was conducted to evaluate the mediation effect. Results of the Sobel test indicate that the indirect effect of ESM identity on job performance was mediated through co-worker support (Z= 2.0, p<0.05). H2 was supported. H3 asserts that co-worker support also mediates the relationship between the ESM identity and job satisfaction. The Sobel test results showed that H3 was supported with (Z=1.99, p< .05).
Contributions

Overall, our findings contribute to the literature on the use of ESM in the workplace. The central argument of this paper is that ESM identity impacts job performance and job satisfaction as mediated through co-worker support. Identification with social media in the workplace has not been addressed in past theory and research; instead, prior work has centered around the role of social media in facilitating interaction and projecting the self. Although these aspects of identity are important, the literature does not provide an answer to the important question: what is the impact of incorporating ESM features into self-concept work-related outcomes such as job performance and job satisfaction.

Second, this study finds out that co-worker support mediates the impact of ESM identity on both job performance and job satisfaction. Workers who identify themselves with ESM are more likely to receive support from others due to the high degree of reliance on ESM to accomplish their job tasks and network with others. Co-worker support is one of the essential features in online social networking (Park et al., 2009). Our study shows that co-worker support is also important to mediate the relationship between ESM identity and job performance and job satisfaction.

Third, our study captures a new impact of ESM on job performance and job satisfaction. After we controlled for ESM use and personal social media use, we found that viewing ESM features as integral to the sense of self (ESM identity) significantly impacts on job performance and job satisfaction via co-worker support. Prior social media literature has provided mixed results on the impact of ESM use on job performance and job satisfaction. Our study provides evidence that the effect of ESM use may not be sufficient to capture the impact outcomes.

Limitations and future studies

The use of MTurk sampling is a potential limitation of our study. Because the demographics of MTurkers differ from those of the broader population, the generalizability of our findings may be reduced. However, we chose MTurk to access a wide array of workers with different experiences, perceptions, and work environments and settings. Another limitation concerns the relationship between ESM identity and co-worker support. By employing a cross-sectional design, we cannot rule out the possibility that co-worker support impacts ESM identity. Lastly, we examined the implications associated with ESM identity and not the development of it. However, future studies should be conducted to investigate the development of ESM identity. Furthermore, future studies need to take into consideration the ESM features and organizational and social structure to understand which factors of ESM can increase the workers’ sense of identification with ESM and what organizations can do to promote ESM identity.

Conclusion

ESM is becoming an important collaboration technology for organizational workers. However, there is much left to learn about the factors that foster job performance and job satisfaction. This study is an important starting point in our understanding of the impact of ESM identity on individuals’ performance and satisfaction in the organizational context. Nonetheless, building on the idea of ESM identity, future research is needed to expand our understanding of this important area of study.

References


