Influence of Social Media Communication on Employee Innovative Work Behavior: Mediating Role of Work Engagement

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Abstract. This research aims to examine the influence of social media communication based on two kinds of communication, work-related and non-work-related, on employee innovative work behavior. A quantitative research method was used on 385 employees as samples to achieve the objective of this research. The data were analyzed using Structural Equation Modelling with IBM SPSS Amos 22 software. This study showed that social media communication for work-related communication directly affects employee innovative work behavior. Work engagement can also mediate the effect of work-related communication on innovative work behavior. However, communication for things other than work-related done by employees has no direct or indirect effect on their innovative work behavior. This research contributes to knowledge about the influence of social media usage on communication by employee and employee innovative work behavior. This research also has practical benefits for organizations in showing its support for the employee to do innovation activities despite the challenge of working remotely are endangering innovation.

Keywords: Innovative Work Behavior · Work Engagement · Social Media Communication · Work-Related Communication · Non-Work-Related Communication

1 Introduction

Innovation plays a critical role in organizations as its role in contributing to organization successes through sustaining business in the highly competitive market as well as gaining competitive advantage. Therefore, an organization must provide and support its employee to innovate. However, the development of innovation in Indonesia has been showing poor performance in the last two years of the Global Innovation Index, notably for a business sophistication index which measures how conducive a company or organization is to supporting innovative activities within them.

Innovation is one of the main drivers of change and is not limited to producing new products but is also considered as finding new ways to organize, create better work practices, and also think of better ways of doing things, including services [1]. Furthermore,

innovation could also mean adopting new products, systems, processes, programs, services, or business models for organizations. To sustain during intense competition and achieve competitive advantage and organizational success, an organization must consider innovation as the key to achieving them [2]. There is a lack of understanding between creativity and innovation; the two of them are different, where the ideas that are formed or produced in creativity are not implemented, while the implementation of these ideas is called an innovation [3].

The greater the company's efforts in creating a supportive environment for innovation, the higher the level of motivation, commitment, and employee engagement that leads to increased company performance [4]. Innovation also plays a vital role in helping organizations adapt quickly to economic change and gain a competitive advantage [5]. Involvement of innovation within an individual scale is described as innovative work behavior, a deliberate effort to create, introduce, and implement new ideas in work roles, groups, or organizations, to be able to provide benefits to a person's performance based on his or role, group, or organization [6]. The relationship between innovative work behavior and workload has been explained by the job demands and job resources (JD-R) model through work engagement. When employees have a moderate level of job demands, they will be more engaged with their work, making them more involved in carrying out innovative activities [7].

Work engagement is also believed to be a driver for innovative work behavior [8] and positively related to each other [9]. Work engagement is a positive feeling, achievement of a work-related state of mind and can be identified by high levels of energy and mental resilience at work, and a desire to exert effort in work, and shows persistence when encountering difficulties (vigor), is fully involved in a task, and finds a sense of self-importance, feels enthusiastic, inspired, proud, and challenged (dedication), and is entirely concentrated, focused and too fixated on work so that time feels fleeting (absorption) [10]. Work engagement is a popular concept used by many studies because it can be used as an excellent predictor of essential effects on employee performance, group performance, and organization.

One of the job resources, which is communication among employees, has been impacted by the presence of technology and the internet, and it could create negative effects like work interference and impact the level of work engagement of employees [11]. To communicate effectively between employees, social media has been used and developed to facilitate employees in doing so. Social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of User Generated Content [12]. Social media was initially created for personal use but its usage has been increasingly expanded to professional [13] and its usage is to fulfilled organizational purposes and were designed to be used exclusively to connect professionals in specific fields or provide a platform for an employee to socialize and exchange ideas through discussion within an organization or a company.

There are two types of social media platforms commonly used internally within an organization, which refer to enterprise social media and general social media sites adopted by organizations. First is enterprise social media or network, which is defined as a platform created specifically for internal communication and was created for the sake of

increasing social interaction, such as for the needs of sharing work content, exchanging information, and collaboration, and the second is general social media which is described as a social networking site used by the general public and open to anyone to administer [14].

Enterprise social networks affect employee job performance, specifically employee job satisfaction and turnover intention [15]. Furthermore, communication in social media professionally can be divided into two kinds of communication which are work-related communication and non-work-related communication. A direct and positive relationship was found between employee communication on social media for work matters and work engagement. In contrast, communication with social media by employees for purposes other than work has an indirect and positive relationship with work engagement through social support and organizational identification [16]. Both social support and organizational identification are identified as job resources that are believed can enhance a sense of belonging between employees and an organization where they belong.

It has also been found that usage of social media in organizations for both work purposes and social purposes can improve the team and employee performance [17] as well as enhance psychological meaningfulness, safety, and availability among employees. Based on this result, ESM usage makes employees feel more confident and satisfied, which leads to the enhancement of their work meaningfulness as well as promoting psychological safety at work by encouraging harmony and supporting the work environment. Based on the results and findings from previous research, this study aims to examine employee innovative work behavior and other aspects such as work engagement and social media communication.

2 Methods

A quantitative research method has been applied in this study which usually measures consumer behavior, knowledge, opinions, or attitudes [18]. Based on its purposes, this type of study is descriptive research and has been conducted to describe a phenomenon or characteristic related to the subject population, while based on the time dimension, this research is a cross-sectional study that was conducted once and represented a portrait of one point in time. In this study, the type of sampling used is non-random/probability sampling with unrestricted selection elements, which was included in the convenience category (Fig. 1).

The research hypotheses are formulated as follows:

H1: Work-related communication positively and significantly influences work engagement

H2: Non-work-related communication positively and significantly influences work engagement

H3: Work engagement positively and significantly influences innovative work behavior

H4: The influence of work-related communication and non-work-related communication on innovative work behavior are mediated by work engagement

H4a: The influence of work-related communication on innovative work behavior is mediated by work engagement
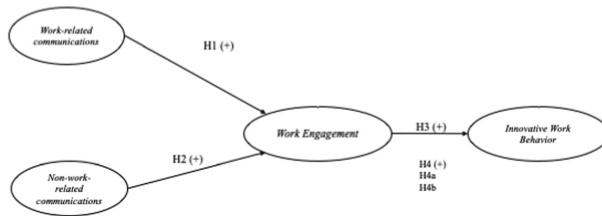
Fig. 1. Conceptual research model

H4b: The influence of non-work-related communication on innovative work behavior is mediated by work engagement

The sample selected in this study was full-time employees from various industries with at least a one-year employment period of working in the current company and supervisors as well as colleagues in Indonesia. 443 respondents filled out the online questionnaire, but only 385 respondents' answers were analyzed using structural equation modeling Amos 22 from March to May 2022.

The measurement of four variables was administered and distributed by online questionnaire using Google Forms. This questionnaire consists of 28 items for each represent variable measured. The 9 items for innovative work behavior [6], 17 items to measure work engagement [19], and 2 items for social media communications (1 item for work-related and 1 item for non-work-related communication) [16]. All items respond from 1 to 7 using the Likert scale, where 1 represents strong disagreement from the respondent to the statement in the questionnaire and 7 represents strong agreement.

3 Result and Discussion

3.1 Demographic Analysis

The demographic profile analysis from this research has shown that based on gender, female respondents dominated in this research (239;62,1 percent). As for age, most of the respondents are between 20 and 29 years old (217; 56,4 percent). We also asked for educational background; most respondents completed their bachelor's degree (261; 67,8 percent). In terms of working setups, most of the respondents have been working hybrid for the past two years (261; 67,8 percent). Most of the respondents work in services industries with a percentage of 24,9 percent (96 respondents) (Table 1). As for the social media demography, WhatsApp was the most popular among the respondents to communicate work-related with others (329; 85,5 percent).

3.2 Measurement

This research conducted structural equation modelling using Amos 22 to analyze the measurements and structural model. This study examined several measurements, such as convergent validity, discriminant validity, and composite reliability tests of the measurement model. The model with a standardized loading factor (SLF) and an average

Table 1. Demographics of respond

Information	Frequency	(%)
Gender		
Male	146	37,9
Female	239	62,1
Age		
20 to 29 years old	217	56,4
30 to 39 years old	92	23,9
40 to 49 years old	54	14
>49 years old	22	5,7
Education		
High school/Vocational	15	3,9
Diploma	37	9,6
Bachelor	261	67,8
Master Degree	72	18,7
Industries		
Services Company	96	24,9
Wholesale and Retail Trade; Repair and Car Maintenance	50	13
Financial and Insurance Services	49	12,7
Manufactures	40	10,4
Communication and Information	34	8,8
Government Administration, Defense, and Social Security	34	8,8
Working method		
Work from home	50	13
Work from office	74	19,2
Hybrid	261	67,8
Social Media		
WhatsApp	329	85,5
Microsoft Teams	21	5,5
Slack	12	3,1
Telegram	9	2,3
Skype	6	1,6
Others	8	2

variance extracted (AVE) greater than or equal to 0.5 [20] is considered good. In this study, for the statistical results, the measurement range of SLF is between 0.534 and 0.899, which has been proven that all items are valid.

Furthermore, the AVE value is a range of 0.473–0.612, and we analyzed the instrument reliability, which was assessed from the value of composite reliability (CR) with a range of 0.754–0.886. According to Hair et al. (2019), the instrument with good reliability has a value of 0.6 or above. However, a construct can still be considered reliable even though it has a VE value of less than 0.5 as long as the CR value is more than 0.6 [21]. Thus, it can be concluded that all items are reliable.

This study has examined the goodness of fit to assess the proposed model. For the Goodness of Fit Index (GOFI), values have been in the marginal fit index with a point of 0.912. The Root Mean Square Error of Approximation (RMSEA) indicates a close fit with 0.048, and for Comparative Fit Index (CFI) shows a good fit index with a point of 0.961.

3.3 Hypotheses Testing

The statistical result from this study has shown a significant result in work-related communication (t-values = 4,124) and work engagement in innovative work behavior (t-values = 10,616). Thus, make H1 and H3 were accepted. However, there was no significant effect shown from non-work-related communication on work engagement (t-values = 1,274); therefore, H2 was rejected (Table 2).

The last hypothesis analyzed work engagement as the mediating role in the relationship between work-related communication, non-work-related communication, and employee innovative work behavior. A partial mediation was found between work-related communication and innovative work behavior. However, since there is no signification result between non-work-related social media communication and work engagement as well as innovative work behavior, there was no mediation effect. Thus, making H4 partially supported whereas H4a was supported and H4b was rejected (Table 3).

Table 2. Hypotheses testing

Hypothesis	Path	t-value	SLF	Result
H1	Work-related communications → Work Engagement	4,124	0,160	Accepted
H2	Non-work-related communications → Work Engagement	1,274	0,041	Rejected
H3	Work Engagement → Innovative Work Behavior	10,616	0,526	Accepted

Table 3. Mediation result

Path	Direct Effect	Indirect Effect	Total Effect	Result
Work-related communications → Work Engagement → Innovative Work Behavior	0,010	0,147	0,158	Partial mediation
Non-work-related communications → Work Engagement → Innovative Work Behavior	0,077	0,045	0,122	Non-mediation

4   Conclusions

After doing an analysis based on theories supported and results of this study, the researchers could conclude as follow: 1. This study analysed the influence of social media communication on work-related and non-work-related and work engagement, and the effect between them leads further to employee innovative work behaviour. The results showed that the work engagement role mediates the influence of work-related communication on innovative work behaviour. In contrast, both the direct and indirect effect of non-work-related communication on employee innovative work behaviour has not been found in this study.

Communication practices and information accessibility can be improved when organizations prioritize the usage of social media by employees to communicate about work that has been done and play a vital role in the construction of their engagement to work [22, 23]. Therefore, the more communication about work being done by employees, the higher the chances for employees to show engagement in their work. On the other hand, communication that is not related to work on social media strengthens the negative relationship between employee pressure that hinders employee self-development and employee creativity. This indicates that there is a negative side that affects social media usage for non-work matters [24].

2. Organizational performance is primarily affected and determined by employee performance. Therefore, the organization's role is to support and create an environment for employees to show the performance expected by the organization. The result indicates that the higher level of engagement to work in employees, the more they are willing to innovate, which has been proven to affect organizational performance.

However, despite the significant results in this study, several limitations have been acknowledged. Our study was conducted online, so researchers could not have a direct observation of the respondent. The respondent came from various industries. The potential for bias to occur due to the tendency of data in certain groups that have different job characteristics can be considered conduct.

Organizations should pay more attention to social media communication practices and provide opportunities for employees to focus on their work by maintaining their motivation to finish the task or solving the problems they are facing in the middle by

generating ideas or implementing those ideas so they can produce an effective way to accomplish their goals.

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