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# Ambidextrous social media experience in fostering innovative behavior among white-color workers

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Article history: Received: July 20, 2020 Received in revised format: Au- gust 29, 2020 Accepted: September 21, 2020 Available online: September 21, 2020	Social media serves as a platform or a new area for developing innovation responsive to business advancement. As individuals are the source of knowledge in organizations, individual learning is the focus of organizational learning and development. Ambidexterity is an activity that requires individual learning. The study was carried out in Greater Jakarta, Indonesia. A personal survey questionnaire with convenience sampling was used to collect white-collar workers in Greater Ja- karta. Rasch Model Analysis, specifically Person Measure Analysis, was used to filter for bias in
Keywords: Ambidexterity Social media Social learning Innovative behavior White-collar worker	the responses because the data was collected through personal references or self-report question- naires. Structural Equation Modeling (SEM) is used to test hypotheses based on the collected data. According to the statistical results, ambidexterity and social media learning experience signifi- cantly impact innovative behavior. It implies that ambidexterity and social media learning expe- rience can improve white-collar workers' innovative behavior. Ambidexterity has a significant impact on the learning experience on social media. It implies that a person with greater ambidex- terity will engage in more intense knowledge exploration and exploitation through social media. The study's findings also show that social media experience without ambidexterity has the least impact on innovative behavior. It implies that social media experience without exploratory and exploitative activities does not lead to innovative behavior.
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# 1. Introduction

The coronavirus outbreak or covid-19 has become a new era in doing knowledge sharing and innovation inside organizations. This era of massive digital change is changing the nature of communication and how employees work at the intersection of technology to change reality. In a short time, everything changed, how employees communicate, how they innovate, how they share their ideas, use social media, and up to how they work. Technology allows it to happen effectively (Pratiwi et al., 2021; Wijayanti & Sihotang, 2021). The use of information and communication technology (ICT), including social media, has given many advantages such as better teaching and learning opportunities, a variety of resources for finding information, and a way to connect with others. A person's daily activities can be more accessible by these good qualities, whether they're learning, working, or socializing (Purnama Ratri & Andangsari, 2021). Specifically, social media technology allows convenience for sure, such as Ease and speed of spreading the content, High user involvement in the chain, Widespread visibility of actions, Real-time content access, ubiquity, and creating relationships of social networks (Khalik et al., 2021). Social media is the most-used online platform. It is an important medium to elaborate white-collar workers in their office activities. This condition is also supported by data on internet usage, which has continued to increase in the last decade (Christina et al., 2021).

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Many business organizations have realized that social media can be used to achieve strategic goals, gain a competitive advantage that helps them reach their clients, develop their operations and products, and generate new ideas that allow them to survive in markets and achieve the desired development. Those are the basic essential requirements for these organizations, especially in light of the global competition in markets (Bala et al., 2019; Mansour & Al-Najjar, 2018). Social media can also provide opportunities to obtain new knowledge and innovations, ultimately boosting performance. Business innovation could be the prominence that significantly impacts a company's performance. Innovation enables businesses to offer various products that differentiate them from competitors, hence improving their financial success. As a result, social media is a platform or a new location for making innovation that adjusts to the development era (Moy et al., 2020). Innovative behavior refers to the deliberate production, promotion, and execution of new ideas in a work role, workgroup, or company. It has become a popular tool to assess how effectively staff performs, particularly in fast-growing businesses. Employees who want to be innovators must have positive working connections with their co-workers. These connections give innovators the inspiration, knowledge, resources, and encouragement they need to develop, promote, and actualize their new ideas (Wang et al., 2015). Therefore, innovation has become an integral part of daily business operations to preserve a competitive edge, assure organizational survival, and grow (Khan & Khan, 2018). Organizational knowledge is the most important asset and a vital component of maintaining competitiveness in complex, multinational, and fast-paced commercial organizations (Ogulin et al., 2020). Communication and information technology, specifically social media, facilitates knowledge creation. This process happens by enabling the sharing of tacit knowledge among employees, translating tacit knowledge into explicit and systematic forms to be easily understood. It also combines explicit knowledge to organize in a knowledge system and provides a discussion and conversation space to transform explicit knowledge into tacit knowledge (Mita et al., 2019; Moy et al., 2020). Knowledge comprises experiences, data, values, and systematic attitudes that provide a framework for evaluating new data and experiences. Employees share their tacit or explicit knowledge to generate new knowledge (Hussein et al., 2019; Mohajan, 2019; Si Xue, 2017). Knowledge sharing and innovation are widely regarded as critical competitive aspects in today's technologydriven company climate. It significantly impacts and nurtures an employee's survival, outstanding performance, and adaptation (Ali et al., 2017).

One of the primary functions of Human Resource Management is learning and development, which provides a system for knowledge creation and exchange. Individual learning is currently the emphasis of organizational learning and development because individuals in organizations are the source of knowledge. One of the individual learning-based activities is ambidexterity. Employee ambidexterity happens when employees display a mixture of exploratory behaviors and exploitative behaviors (Alghamdi, 2018). Exploring involves looking for alternatives, finding, generating, and playing with new possibilities, accomplishing assignments, and learning from errors. While exploiting the choosing, introducing, enhancing, and refining established certainties. In short, explorative is about trying out something new. At the same time, exploitation relies on one's experience, designing a strategy, and implementing the plan (Peng et al., 2019; Rosing & Zacher, 2017). Ambidexterity as a knowledge-based activity enables people's abilities, knowledge, talents, ideas, and commitments to become valuable assets. Those include organizational practices, strategies, formal knowledge, human skills, and experiences becoming valuable assets such as organizational knowledge. Knowledge-based activities promote the interchange of data, information, knowledge, and wisdom within a firm and the creation of value (Stevanin et al., 2020). Some scholars have studied the employee's role in boosting innovation through the use of social media. Mardi (Mardi et al., 2018) explored the importance of organizational ambidexterity-defined as the balance of attention on exploitation (efficiency) and exploration (innovation) activities-to organizational success, particularly in the emergence of social technology. The findings show that the adoption of social technologies has a direct and indirect favorable impact on ambidexterity through collectivism-based collaboration. Huang (Gunawan et al., 2018) studied a new organizational capability that emerges naturally when companies learn to adapt social media to interact, share, and engage in organizational conversations. As a result, social site networks and their effects fuel involvement in knowledge exchange and form innovative worker behavior. Helmi ((Norman et al., 2015) conducted a study to analyze the functions of social engagement in mobile social media learning. The study of He and Wang (Quan et al., 2021) indicated that social media usage is an essential new route for innovation. It allows access to a large amount of employee input and feedback. It engages employees with dispersed knowledge in the development of new ideas and approaches. Another scholar studied the impact of employees' knowledge sharing on their innovative behavior by examining the use of social media (Ali et al., 2017).

This study aims to make contributions to existing research on innovative behavior, specifically among white-collar workers. There are still a few studies on this subject that have been conducted. First, the researchers identify ambidexterity as the enabler of innovative behavior. Second, this research also examines the effect of social media learning on innovative team behavior as a mediating variable.

#### 2. Literature review

### 2.1 Social Media Learning Experience

Social media is a communication technology that enables people to communicate with one another. Evans (Mansour & Al-Najjar, 2018) defined social media as a forum for exchanging ideas, experiences, and information to make a better and more informed decision. Other scholars (Mansour & Al-Najjar, 2018) defined Social Media as a web and mobile-based platform built on Web 2.0. It enables users of various levels to share and make tags (geo-tags) of user-generated content and collaborate with other users to build networks and communities to reach a large audience segment. Social media appear to exemplify social constructivist notions of knowledge as decentralized, accessible, and co-constructed by and among a large range of users from a conceptual standpoint (Greenhow, 2011). It is a website-based feature that facilitates the formation of networks and the interaction of members of a community. According to Kietzmann, Hermkens, McCarthy, and Silvestre (Mansour & Al-Najjar, 2018), social media is a combination of technologies that allow users to save their personal data, develop relationships, share information, create groups, converse/chat, determine their online status, and communicate with one another. It enables anyone to connect with pre-existing networks and solicit a direct response. Social media comes in a variety of formats. The most prominent of which are YouTube, Facebook, Twitter, Instagram, Line, Google+, Facebook Messenger, WhatsApp, and BlackBerry Messenger, including Twitter, Facebook, and blogs (Mita et al., 2019; Moy et al., 2020).

There are six distinct social media aspects (Khalik et al., 2021) that make it an easy-to-use tool for developing and sharing knowledge resources: first, the digital nature of new media, which means any users may effortlessly share their material or have it done by others (to make their digital copies), to receivers worldwide via traditional publishing with no publication price; second, the involvement of the users. It means that value is produced, and the chain is formed. Adding comments (about a product), complex kinds of collaboration (e.g., product beta testing), and product co-creation (e.g., open-source software development) provide additional value on social media. The third is the range of social media operations (Widespread visibility of actions). Other users can read blog posts, participate in forums, and upload photographs to social networks, individuals, and businesses. Fourth, access to real-time content so that consumers can exchange real-time experiences, such as through microblogs or chat rooms. Fourth, removing anything from social media is practically difficult (content durability), which refers to the capacity to analyze negative and positive responses from potential customers for years after publishing. The fifth is everywhere (ubiquity). It means users can now access social media resources from anywhere, at any time, with the convenience of mobile devices. 6) Networking implies that social media users make relationships that serve as the foundation for the development of social networks. Collaborations (e.g., Wikipedia), friendships (e.g., Facebook), trade ties (e.g., LinkedIn), people resources and information (e.g., YouTube.pl, MyStarbucksIdea.com), social support (e.g., industry forums) are examples of network connections (Khalik et al., 2021). Employees who use social media share their expertise when evaluating their equity compared to others at their place of employment to participate in activities that help them meet their expectations for similarly creative behavior (Ali et al., 2017).

# Ambidexterity

Ambidexterity is a situation where exploration and exploitation activities are at odds with one another (Alghamdi, 2018; Rosing & Zacher, 2017; Zhang et al., 2019). Similar characteristics to ambidexterity are alignment and adaptability, agility and stability, teamwork, and individual focus (Zhang et al., 2019). Some scholars explain that such items can be in the organizational sense, the team, and the individual context. Exploration focuses on search, discovery, and risk-taking, while exploitation concerns execution, performance, refinement, selection, implementation, and risk avoidance. (Alghamdi, 2018; Rosing & Zacher, 2017; Zhang et al., 2019).

Organization ambidexterity is a recent concept in organizational dynamics. It involves the production of new goods and services. Ambidexterity is a trait of an organization's ability to react to rapid change. It works concurrently with existing capabilities to leverage opportunities and investigates potential possibilities (Alghamdi, 2018; Mu et al., 2020; Papachroni & Heracleous, 2020; Peng et al., 2019; Schnellbächer & Heidenreich, 2020). Ambidexterity is a trait of an organization's ability to react to rapid change. It collaborates with existing capabilities to leverage opportunities and investigates potential possibilities (Alghamdi, 2018; Schnellbächer & Heidenreich, 2020). Ambidexterity is a trait of an organization's ability to react to rapid change. It collaborates with existing capabilities to leverage opportunities and investigates potential possibilities (Alghamdi, 2018; Schnellbächer & Heidenreich, 2020). At the individual level, ambidexterity means that both exploration and exploitation will achieve synergisms. Empirical research has shown that ambidexterity positively affects organizational agility and organizational effectiveness. Based on the scholar's explanation, ambidexterity defines as a way to leverage knowledge generation and knowledge accumulation from exploration and exploitation processes to optimize organizational effectiveness and efficiency (Mu et al., 2020; Papachroni & Heracleous, 2020; Schnellbächer & Heidenreich, 2020; Tuan Trong et al., 2018; Zhang et al., 2019).

# Innovative Behavior

Organizational behavior scholars believe that innovation is crucial to an organization's long-term success (den Hartog et al., 2020; Vestal & Mesmer-Magnus, 2020). According to West and Farr (den Hartog et al., 2020; Sung & Kim, 2021), innovation is the deliberate introduction and use of novel ideas, methods, products, or procedures within a role, group, or organization with the intent of significantly benefiting the individual, group, organization, or broader society. Individual innovative behavior is composed of three components: acts motivated by pleasure (intrinsic motivation), personal knowledge and talents (skills), and cognitive/perceptual styles and thinking abilities (creativity relevant processes). Additionally, three organizational innovativeness components include openness to new risks (desire to innovate), provision of money, time, and talent (resources), and relational and transactional rewards (human resource management practices/processes) (Fischer et al., 2019; Hussein et al., 2019; Sung & Kim, 2021). The definition of innovation includes three components: first, it is necessary to have an application component for innovation to emerge, which goes beyond simply having new ideas. Second, procedures and processes are enhanced, such as in organizational administration (which comprises organizational procedures and processes). Third, it means innovation as innovative as a job function. Third, innovation can be understood at different organizational

levels (den Hartog et al., 2020; Hussein et al., 2019; Sung & Kim, 2021). Individual-level innovation was followed by the team- and organizational-level innovation.

This research aims to identify the variables that significantly impact innovative behavior among white-collar workers. Thus, the researchers arrive at the following hypotheses and a research framework after conducting a thorough literature search:

Hypothesis 1:Ambidexterity has a significant direct impact on social media learning.Hypothesis 2:Ambidexterity has a significant direct impact on innovative behavior.Hypothesis 3:Social media learning has a significant direct impact on innovative behavior.Hypothesis 4:Ambidexterity has a significant indirect impact on innovative behavior through social media learning.Hypothesis 5:Ambidexterity and social media learning have a significant impact on innovative behavior.

# 3. Method

The study explores the impact of ambidexterity through social media experience in fostering innovative behaviors among white-collar workers in Greater Jakarta. This study used a quantitative design to conduct empirical research. All items were graded on a five-point Likert scale, with one indicating strongly agree and five indicating strongly disagree. The questions used as a measure of ambidexterity (X) were adapted from (Mardi et al., 2018; Mu et al., 2020; Papachroni & Heracleous, 2020; Schnellbächer & Heidenreich, 2020), consisting of 9 indicators. Social media experience (Z) adapted from (Bala et al., 2019; Mansour & Al-Najjar, 2018; Moy et al., 2020; Norman et al., 2015) composed of 6 indicators. Further, for variable Y, namely innovative behavior, adapted from the work of (Di Fabio & Saklofske, 2019; Ko et al., 2018; Nguyen et al., 2019; Sanchez-Gomez & Breso, 2019; Sung & Kim, 2021), consisting of 9 indicators. The findings of this study were obtained Structural Equation Modeling (SEM) with SmartPLS software version 3.2.9 to run the validity test, reliability test of the research instruments, and to examine the research hypotheses. Also, this study performed a model analysis using two evaluation methods: an outer model (measurement model) and an inner model (structural model). The Outer Model measures the tests' convergent, discriminant, and composite reliability. The Convergent Validity Test is used to verify an indicator's reliability with a latent build (Sarstedt et al., 2021). The data shows (Table 1) all of the indicators have a loading factor above 0.700 and an AVE value greater than 0.5. It means all indicators have convergent validity based on the outer loading validity. It also means that all indicators can explain each existing variable, and those are also meaningful enough for further study (Sarstedt et al., 2021).

### Table 1

The loading factor test results

Variables	Indicators	Loading Factor	Result
	AM1 U	0.732	
	AM10 C	0.688	
	AM11 C	0.581	
	AM2 U	0.672	
	AM3 U	0.647	
Ambidexterity (X)	AM4 U	0.797	
	AM5 U	0.785	
	AM6 U	0.818	
	AM7 C	0.787	
	AM8 C	0.796	
	AM9 C	0.730	
	I1	0.721	
	12	0.692	Valid
	13	0.712	v and
Innovative Rehavior	I4	0.769	
(V)	15	0.806	
(1)	16	0.617	
	Ι7	0.808	
	18	0.842	
	19	0.847	
	SL1	0.817	
Social Media	SL2	0.782	
Experience	SL3	0.800	
(7)	SL4	0.827	
(L)	SL5	0.850	
	SL6	0.706	

The reliability test used Cronbach's alpha and Composite Reliability to strengthen the research instrument. The test criteria stated that if composite reliability is more significant than 0.7 and Cronbach's alpha is greater than 0.6, the construct is reliable (Sarstedt et al., 2021).

Table 2	
Reliability	test results

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Х	0.913	0.916	0.927	0.538
Y	0.908	0.917	0.924	0.579
Z	0.886	0.894	0.913	0.637

The reliability test results indicate that each variable exhibits sufficient reliability since each variable produces a Cronbach's alpha value greater than 0.6. Besides, the composite reliability is more than 0.7. Therefore, it concludes that all of the measured variables are reliable. Furthermore, the results also show that all variables have an Average Variance Extracted (AVE) value of more than 0.5 (Sarstedt et al., 2021). Thus, all indicators can be declared capable of measuring the variables.

### Table 3

The results of AVE

	Ambidexterity (X)	Innovative Behavior (Y)	Social Learning (Z)
Х	0.734		
Y	0.702	0.761	
Z	0.696	0.687	0.798

According to the table above, the AVE (Fornell-Larcker Criterion) roots for each construct are bigger than their correlations with other variables. For example, if the AVE value for Ambidexterity (X) is 0.538, the AVE root is 0.734. Therefore, the model has excellent discriminant validity if the square root value of the AVE for each construct is greater than the correlation value between constructions and other constructs in the model (Sarstedt et al., 2021).

# 4. Discussion

The research was conducted in Greater Jakarta, Indonesia, in 2021. It took approximately six months to complete the study. The data were collected from the white-collar workers in Greater Jakarta using a personal survey questionnaire and convenience sampling. This convenience sampling has been recognized and used in several studies, such as Shahid Razzaq (Razzaq et al., 2019) in Pakistan. The pragmatic ground supporting this type of convenience sampling is the unlimited population of white-collar workers in Greater Jakarta. The study successfully collected the primary data from 154 white-collar workers by distributing closed-ended questionnaires. Still, only 119 responses can be examined further. As the data was collected through personal references or self-report questionnaires, Rasch Model Analysis, specifically Person Measure Analysis used to filter for the responses' bias (Boone et al., 2014; Miftahuddin et al., 2020; Sumintono, 2014). There are 63% male with the female for 37%. The age of the white-collar workers is 85% between twenty to thirty years old and 15% above thirty years old. 60% are diploma holders and 40% are bachelor graduates. The tenure of the white-collar workers is 80% less than 2 years and 20% more than 2 years. They are officers (60%), and 40% are supervisors and managers. They are from investment business (3%), e-Commerce (8%), consultant business (20%), banking (8%), advertising (8%), software business (8%), transportation (6%), and others (39%). The Structural Equation Modeling (SEM) with SmartPLS software version 3.2.9 is used to run the collected data to hypothesis testing. Inner Model Evaluation is used to evaluate the goodness of fit and hypothesis testing. The structural research model is presented in Fig. 1.



Fig. 1. Inner Model Analysis

The measurement of path coefficients between constructs is carried out to see the relationship's significance and strength and test the hypothesis. The path coefficients values range from -1 to +1. The closer the value to +1, the stronger the relationship

between the two constructs. Conversely, the relationship closer to -1 indicates that the relationship is negative (Sarstedt et al., 2021). The output path coefficient, as shown in Table 4, is to see the magnitude of the direct effect (Direct Effect) of each independent variable (exogenous) on the dependent variable (endogenous).

# Table 4

Direct effects (Model 1)

	Original Sample (O)	Sample Mean (M)	Standard Devia- tion (STDEV)	T Statistics ( O/STDEV )	ρ Values
$X \rightarrow Z$	0.696	0.703	0.049	14.269	0.000

Model 1 assesses the effect of the exogenous latent variable on social media experience (Z) as the endogenous latent variable. The magnitude of the parameter coefficient for the ambidexterity (X) variable on social media experience (Z) is 0.696. It means that there is a positive effect of ambidexterity (X) on social media learning (Z). It can be interpreted that the better the ambidexterity (X) value, the social media learning (Z) will increase. For example, an increase in one unit of ambidexterity (X) will increase social learning (Z) by 69.6%. Based on calculations using bootstrap or resampling. The test results of the estimated coefficient of ambidexterity (X) on social media learning (Z) bootstrap results are 0.703 with a t value of 14,269 and the p-value is 0.000 < 0.05. It concludes that H1 is acceptable. There is a significant direct influence of ambidexterity (X) towards social media learning (Z) and is statistically proven.

# Table 5

## The results of direct effects (Model 2)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	ρ Values
$X \rightarrow Y$	0.433	0.418	0.127	3.417	0.001
$Z \rightarrow Y$	0.386	0.401	0.113	3.424	0.001

The magnitude of the parameter coefficient for the ambidexterity (X) variable on innovative behavior (Y) is 0.433. It means a positive influence on ambidexterity (X) on innovative behavior (Y). It interprets that the better the ambidexterity (X) value, the more innovative behavior (Y). An increase in one unit of ambidexterity (X) will increase innovative behavior (Y) by 43.3%. Based on calculations using bootstrap or resampling, where the test results for the estimated coefficient of ambidexterity (X) on innovative behavior (Y) the bootstrap results are 0.418 with a t-count value of 3.417, the p-value is 0.001 <0.05. It proves that H2 is acceptable. It means a significant direct influence of ambidexterity (X) on innovative behavior (Y) is statistically proven.

The magnitude of the parameter coefficient for the social media learning (Z) variable on innovative behavior (Y) is 0.386. It means that there is a positive effect of social media learning (Z) on innovative behavior (Y). It explains that the better the social media learning (Z) value, the innovative behavior (Y) will increase even more. An increase in one unit of social media learning (Z) will increase innovative behavior (Y) by 38.6%. Based on calculations using bootstrap or resampling, where the test results of the estimated coefficient of social media learning (Z) on Innovative behavior (Y) bootstrap results are 0.401 with a t value of 3.424, the p value is 0.001 < 0.05. It also concludes H3 is also acceptable. It means a significant direct effect of social media learning (Z) on innovative behavior (Y) is statistically proven.

# Table 6

The results of indirect effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	ρ Values
$X \rightarrow Z \rightarrow Y$	0.269	0.282	0.083	3.227	0.001

The indirect or indirect effect is the effect of the independent variable on the dependent variable through the mediating variable. In this model, the mediating variable is variable Z, namely as a mediator for the influence of the independent variables X1 and X2 on Y. Table 6 shows that the indirect effect is significant because the p value of the indirect effect is 0.001. It means there is a significant indirect effect of ambidexterity (X) on innovative behavior (Y) through social media learning (Z) since p value 0.001 < 0.05. The result shows H4 is acceptable and statistically proven.

# Table 7

The results of total effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	ρ Values
$X \rightarrow Y$	0.433	0.418	0.127	3.417	0.001
$X \rightarrow Z$	0.696	0.703	0.049	14.269	0.000
$Z \rightarrow Y$	0.386	0.401	0.113	3.424	0.001

The total effect is the total effect which is a combination or the sum of direct and indirect effects. Because there is no indirect effect, the total effect automatically equals the value of the direct effect. As shown in Table 7, the Output Path Coefficient is to see the magnitude of the total effect of each independent variable on the dependent. So based on the table above, all total effects are significant, or H5 is acceptable because it has a p-value <0.05.

Statistical results show that ambidexterity and social media learning experience significantly impact innovative behavior. It implies that ambidexterity and social media learning experience can foster innovative white-collar workers. Ambidexterity has a significant impact on the social media learning experience. It means that a person with greater ambidexterity will be more intense in using social media for knowledge exploration and exploitation. These findings support previous research by Mardi et al. (2018), Gunawan et al. (2018), Norman et al. (2015), Quan et al. (2021) and Ali et al. (2017) on ambidexterity in the emergence of social media on innovative behavior.

The statistical analysis also reveals that ambidexterity has the greatest significant impact on innovative behavior. It implies that white-collar workers are eager to learn new things and apply what they already know through social media learning experiences. These results can support the work of Mardi (2016), He and Wang (2021), and Ali et al. (2017). The findings also show that social media experience without ambidexterity has the least impact on innovative behavior. It implies that social media experience without exploratory and exploitative activities will not significantly influence innovative behavior. It supports the study of (Quan et al., 2021). Another finding indicates that the social media learning experience significantly strengthens the impact of ambidexterity on white-collar workers' innovative behavior. It is consistent with previous research by Mardi et al. (2018), Gunawan et al. (2018), Norman et al. (2015), Quan et al. (2021), and Ali et al. (2017).

Modern knowledge management systems generally provide many e-learning platforms for social media learning. Various of them have produced virtual learning environments as one of the effective e-learning methods that emulate traditional classroom learning and the advantages of social media learning (Gunawan et al., 2018). In recent years, social media has actively developed small, medium, and large enterprises (Afiyah, 2021). Some e-learning platforms offer free services, and some are paid. The interconnections of social media learning between learners, facilitators, and other appropriate learning partners, inspire the development of the following use cases (Oktavia & Sujarwo, 2020). The use case for social media learning is presented in Fig. 2. Based on Fig. 2, the use case social media learning in an organization into beneficial innovations. Ensure this innovation is created by evaluating and managing courses that occur in the organization. Build upon the use case consisting of 3 actors: Admin, Facilitator, and Learner. Each actor has a responsibility that is shown on Table 8.

# Table 8

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Actor respo	nsibility	
No	Actor	Responsibility
1	Admin	Constitute of organization role to manage the course and transpose it become new innovation or new high-value courses.
2	Facilitator	Responsible for creating, evaluating, and joining the course, including posting forum, checking quiz, following other facilitator or learner, and other activities such as access content, like content, comment content, blog, vote, and poll.
3	Learner	Responsible for joining the course, including exam course, posting forum, posting quiz, following other facilitator or learner, and other activities such as access content, like content, comment content, blog, vote, and poll.



Fig. 2. Use Case Social Media Learning

Afterward, the use case consists of 10 use cases, namely: Create Course, Manage Course, Create Innovation, Evaluation, Join Couse, Exam, Post Forum, Quiz, Follow Facilitator/Learner, and Other Activities. Each use case has a relationship shown in Fig. 2.

## 5. Conclusion

Social media can gain new knowledge and ideas, which will ultimately improve performance. Business innovation may have a significant impact on a company's performance. As a result, social media serves as a platform or a new area for creating innovation that adapts to the advancement period. Individual learning is currently the focus of organizational learning and development since individuals are the source of knowledge in organizations. Ambidexterity is an example of an individual learning-based activity. Employee ambidexterity occurs when employees exhibit a combination of exploratory and exploitative actions. Exploring entails discovering, whereas exploiting entails enhancing, and refining known certainties. The statistical findings show that ambidexterity and social media learning experience significantly impact innovative behavior. It implies that ambidexterity and the social media learning experience can enhance the innovative behavior of white-collar workers. Ambidexterity has a significant impact on the social media learning experience. It implies that a person with stronger ambidexterity will use social media more intensely for information exploration and exploitation. The study's outcomes also demonstrate that social media experience without ambidexterity has the least impact on innovative behavior. It means that social media experience without exploratory and exploitative activities does not result in inventive conduct. The modern knowledge management systems offer various e-learning platforms for social media learning. Several of them have created virtual learning environments as one of the most effective e-learning methods. It emulates traditional classroom learning while also incorporating the benefits of social media learning. In recent years, social media has played an active role in small, medium, and large businesses. Some e-learning platforms provide free services, while others charge a fee. In addition, the social media learning interconnections that connect learners, facilitators, and other appropriate learning partners inspire the development of innovative behavior. The research needs to be improved. Other aspects of the business, such as leadership, organizational culture, and employee satisfaction, may be more beneficial to study in the future. It is also beneficial if the research focuses on a specific organization or another industry environment, such as manufacturing, small-medium enterprises, or agriculture. Furthermore, more participants and a broader range of relevant characteristics should be used to assess the social media learning experience and innovative behavior.

# References

- Afiyah, S. (2021). Analysis of The Use Social Media in The Development of Micro, Small and Medium Enterprises. *Multidiscipline International Conference*, 18–21. https://ejournal.unwaha.ac.id/index.php/ICMT/article/view/2170
- Alghamdi, F. (2018). Ambidextrous leadership, ambidextrous employee, and the interaction between ambidextrous leadership and employee innovative performance. *Journal of Innovation and Entrepreneurship*, 7(1), 1–14. https://doi.org/10.1186/s13731-018-0081-8
- Ali, I., Gilal, R. G., & Shah, N. (2017). Grassroots, Vol.51, No.II July-December 2017. Grassroots, 51(11), 76–92.
- Bala, H., Massey, A. P., & Seol, S. (2019). Social media in the workplace: Influence on employee agility and innovative behavior. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2019-January, 2367–2376. https://doi.org/10.24251/hicss.2019.286
- Boone, W. J., Yale, M. S., & Staver, J. R. (2014). Rasch analysis in the human sciences. In Rasch Analysis in the Human Sciences. https://doi.org/10.1007/978-94-007-6857-4
- Christina, A., Pertiwi, C., & Syawbriyanti, F. (2021). The Struggle of Young Workers : The Dilemmatic Relationship Between Working from Home and Wellbeing in The Digitized Era.
- den Hartog, S. C., Runge, J. M., Reindl, G., & Lang, J. W. B. (2020). Linking Personality Trait Variance in Self-Managed Teams to Team Innovation. *Small Group Research*, 51(2), 265–295. https://doi.org/10.1177/1046496419865325
- Di Fabio, A., & Saklofske, D. H. (2019). Positive relational management for sustainable development: Beyond personality traits-the contribution of emotional intelligence. *Sustainability (Switzerland)*, *11*(2), 1–9. https://doi.org/10.3390/su11020330
- Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers in Psychology*, 10(FEB), 1–15. https://doi.org/10.3389/fpsyg.2019.00137
- Greenhow, C. (2011). Youth, learning, and social media. *Journal of Educational Computing Research*, 45(2), 139–146. https://doi.org/10.2190/EC.45.2.a
- Gunawan, W., Kalensun, E. P., Fajar, A. N., & Sfenrianto. (2018). E-Learning through social media in the virtual learning environment. *IOP Conference Series: Materials Science and Engineering*, 420(1). https://doi.org/10.1088/1757-899X/420/1/012110
- Hussein, A. S., Rosita, N. H., & Ayuni, R. F. (2019). Knowledge Management Orientation Behaviour and Innovation. International Journal of Sociotechnology and Knowledge Development, 11(1), 17–28. https://doi.org/10.4018/ijskd.2019010102
- Khalik, D., Nurdin, G. H., Rendra Graha, S. D., Murad, D. F., & Andrean, H. (2021). The Effectiveness of the Use of Social Media on the Growth and Development of the Company. Proceedings - 4th International Conference on Vocational Education and Electrical Engineering: Strengthening Engagement with Communities through Artificial Intelligence

*Application in Education, Electrical Engineering and Information Technology, ICVEE 2021.* https://doi.org/10.1109/ICVEE54186.2021.9649795

- Khan, H., & Khan, M. (2018). Defining and Measuring Professionalism in Professions of Service Sector. SEISENSE Journal of Management, 1(2), 20–33. https://doi.org/10.5281/zenodo.1218832
- Ko, S. H., Choi, Y., Rhee, S. Y., & Moon, T. W. (2018). Social capital and organizational citizenship behavior: Doublemediation of emotional regulation and job engagement. Sustainability (Switzerland), 10(10). https://doi.org/10.3390/su10103600
- Mansour, K. M. A., & Al-Najjar, F. J. S. (2018). The Social Media Usage and its Impact on the Innovative Behavior: The Mediator Role of Information Technology: A Field Study in the Information and Communication Technology Organizations in Jordan. *International Journal of Business and Management*, 13(11), 46. https://doi.org/10.5539/ijbm.v13n11p46
- Mardi, M., Arief, M., Furinto, A., & Kumaradjaja, R. (2018). Sustaining Organizational Performance Through Organizational Ambidexterity by Adapting Social Technology. *Journal of the Knowledge Economy*, 9(3), 1049–1066. https://doi.org/10.1007/s13132-016-0385-5
- Miftahuddin, A., Hermanto, B., Raharja, S. J., & Chan, A. (2020). City brand attractiveness on tourism using rasch model approach. *International Journal of Supply Chain Management*, 9(2), 150–156.
- Mita, M. M., Cahyadi, R., & Anggraeni, E. (2019). The Intensity of the Use of Social Media on Innovation and Performance in Jabodetabek (Indonesia) SMEs. *International Journal of Research & Review (Www.Ijrrjournal.Com) Vol*, 6(April), 153–160. www.ijrrjournal.com
- Mohajan, H. K. (2019). Knowledge Sharing among Employees in Organizations. Journal of Economic Development, Environment and People, 8(1), 52. https://doi.org/10.26458/jedep.v8i1.612
- Moy, M. M., Cahyadi, E. R., & Anggraeni, E. (2020). The Impact of Social Media on Knowledge Creation, Innovation, and Performance in Small and Medium Enterprises. *Indonesian Journal of Business and Entrepreneurship*, 6(1), 23–31. https://doi.org/10.17358/ijbe.6.1.23
- Mu, T., van Riel, A., & Schouteten, R. (2020). Individual ambidexterity in SMEs: Towards a typology aligning the concept, antecedents and outcomes. *Journal of Small Business Management*, 00(00), 1–32. https://doi.org/10.1080/00472778.2019.1709642
- Nguyen, N. N., Nham, P. T., & Takahashi, Y. (2019). Relationship between ability-based emotional intelligence, cognitive intelligence, and job performance. *Sustainability (Switzerland)*, 11(8). https://doi.org/10.3390/su11082299
- Norman, H., Nordin, N., Din, R., Ally, M., & Dogan, H. (2015). Exploring the Roles of Social Participation in Mobile Social Media Learning: A Social Network Analysis. International Review of Research in Open and Distributed Learning. *International Review of Research in Open and Distributed Learning*, 16(4), 205–224.
- Ogulin, R., Guzman, G., & Nuwangi, S. M. (2020). Knowledge capabilities in supply chain networks: a taxonomy. *Journal* of Knowledge Management, 24(3), 655–674. https://doi.org/10.1108/JKM-06-2019-0266
- Oktavia, T., & Sujarwo, S. (2020). Exploration of recommender generator system to support social learning platform of higher education institution. *ICIC Express Letters*, 14(5), 489–496. https://doi.org/10.24507/icicel.14.05.489
- Papachroni, A., & Heracleous, L. (2020). Ambidexterity as Practice: Individual Ambidexterity Through Paradoxical Practices. Journal of Applied Behavioral Science, 56(2), 143–165. https://doi.org/10.1177/0021886320913048
- Peng, M. Y. P., Lin, K. H., Peng, D. L., & Chen, P. (2019). Linking organizational ambidexterity and performance: The drivers of sustainability in high-tech firms. *Sustainability (Switzerland)*, 11(14). https://doi.org/10.3390/su11143931
- Pratiwi, V. P., Nofrima, S., & Purwaningsih, T. (2021). Central Government Communication With Regions in Handling Covid-19 in Dki Jakarta Through Social Media. WACANA: Jurnal Ilmiah Ilmu Komunikasi, 20(1), 14–24. https://doi.org/10.32509/wacana.v20i1.1171
- Purnama Ratri, A. P., & Andangsari, E. W. (2021). The Role of Empathy in Predicting Cyberbullying Behaviour in Youth Social Media Users in Jakarta. 391–398. https://doi.org/10.5220/0010008603910398
- Quan, X., Xiao, H., Ji, Q., & Zhang, J. (2021). Can innovative knowledge management platforms lead to corporate innovation? Evidence from academician workstations in China. *Journal of Knowledge Management*, 25(1), 117–135. https://doi.org/10.1108/JKM-12-2019-0684
- Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M., & Tehseen, S. (2019). Knowledge management, organizational commitment and knowledge-worker performance: The neglected role of knowledge management in the public sector. *Business Process Management Journal*, 25(5), 923–947. https://doi.org/10.1108/BPMJ-03-2018-0079
- Rosing, K., & Zacher, H. (2017). Individual ambidexterity: the duality of exploration and exploitation and its relationship with innovative performance. *European Journal of Work and Organizational Psychology*, 26(5), 694–709. https://doi.org/10.1080/1359432X.2016.1238358
- Sanchez-Gomez, M., & Breso, E. (2019). The Mobile Emotional Intelligence Test (MEIT): An ability test to assess emotional intelligence at work. Sustainability (Switzerland), 11(3), 1–17. https://doi.org/10.3390/su11030827
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial Least Squares Structural Equation Modeling. In Handbook of Market Research. https://doi.org/10.1007/978-3-319-05542-8\_15-2
- Schnellbächer, B., & Heidenreich, S. (2020). The role of individual ambidexterity for organizational performance: examining effects of ambidextrous knowledge seeking and offering. *Journal of Technology Transfer*, 45(5), 1535–1561. https://doi.org/10.1007/s10961-020-09781-x
- Si Xue, C. T. (2017). A Literature Review on Knowledge Management in Organizations. Research in Business and

Management, 4(1), 30. https://doi.org/10.5296/rbm.v4i1.10786

- Stevanin, S., Voutilainen, A., Bressan, V., Vehviläinen-Julkunen, K., Rosolen, V., & Kvist, T. (2020). Nurses' Generational Differences Related to Workplace and Leadership in Two European Countries. Western Journal of Nursing Research, 42(1), 14–23. https://doi.org/10.1177/0193945919838604
- Sumintono, B. (2014). Model Rasch untuk Penelitian Ilmu-Ilmu Sosial.
- Sung, W., & Kim, C. (2021). A study on the effect of change management on organizational innovation: Focusing on the mediating effect of members' innovative behavior. *Sustainability (Switzerland)*, 13(4), 1–26. https://doi.org/10.3390/su13042079
- Tuan Trong, L., Rowley, C., & Khai, D. C. (2018). Enhancing the effect of frontline public employees' individual ambidexterity on customer value co-creation: Joint effects of ambidextrous leadership and public service motivation. *Journal of Business and Industrial Marketing*, 33(4), 506–522.
- Vestal, A., & Mesmer-Magnus, J. (2020). Interdisciplinarity and Team Innovation: The Role of Team Experiential and Relational Resources. Small Group Research, 51(6), 738–775. https://doi.org/10.1177/1046496420928405
- Wang, F. X. H. (Frank), Fang, Y., Qureshi, I., & Janssen, O. (2015). Understanding employee innovative behavior: Integrating the social network and leader-member exchange perspectives. *Journal of Organizational Behavior*, 36(3), 403–420. https://doi.org/10.1002/job.1994
- Wijayanti, S. H., & Sihotang, K. (2021). How Indonesian Millennial Generations Communicate on social media. *Review of International Geographical Education Online*, 11(8), 1337–1350. https://doi.org/10.48047/rigeo.11.08.113
- Zhang, Y., Wei, F., & Van Horne, C. (2019). INDIVIDUAL AMBIDEXTERITY and ANTECEDENTS in A CHANGING CONTEXT. International Journal of Innovation Management, 23(3). https://doi.org/10.1142/S136391961950021X



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