Workforce Agility during COVID-19: The Effect of Teamwork and Empowering Leadership

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ABSTRACT

This article is an attempt to examine the impact of teamwork and empowering leadership on workforce agility in a construction company. A survey-based study was conducted for supporting this article. The data collection has involved about 378 employees of a construction service company in Indonesia. The application of SmartPLS version 3.3 was used for structuring and analysing the collected data statistically. The results reveal that empowering leadership has positive and significant impact on teamwork and workforce agility. Teamwork influences workforce agility significantly. For improving workforce agility, the company is recommended to develop empowering leadership capability of their managerial resources and strengthening the cohesiveness among employees.

Keywords: *Workforce Agility; Teamwork; Empowering Leadership*

1. INTRODUCTION

COVID-19 causes a devastating domino effect globally. Starting from a health crisis and then having an impact on the cessation of economic activity and ending in an economic slowdown that has the potential to become a global economic recession [1]–[4]. Negative growth of national economy about -3.5% in 2020 as economic impact of COVID-19 has increased poverty rate rapidly, from 9.7% in September 2019 to 16.6% at the end of 2020. This poverty rate is quite similar with in 2004 about 16.7%. This condition has caused around 19.7 million Indonesians to experience poverty due to COVID-19 [5]. As an economic actor in Indonesia, a construction service company has experienced leveraging uncertainty for the supply of materials, craftsmen, equipment, and transportation [6]. The recovery of construction industry is projected to be gradual starting in the third quarter of 2021 which is in line with the decline in the number of COVID-19 cases in Indonesia. There is a positive trend in housing market and new housing projects [7]. Business agility is becoming a strategic issue in for company in accelerating economic recovery [8]. Therefore, this article is interested in elaborating workforce agility. The business agility of construction companies is strongly influenced by the agility of every employee in the workforce [9]–[11]. Based on organizational behaviour perspective [12]–[14], workforce agility is influenced by many factors of individual, group, and organizational scope. This article is interested to examines impact of group factors such as teamwork and empowering leadership statistically on workforce agility development. Do empowering leadership and teamwork provide a positive and significant impact on workforce agility

1.1. Workforce Agility

Previous studies have defined workforce agility into several definitions with the conceptual differences. Workforce agility is defined as a dynamic ability in designing and diagnosing internal and external changes of a company. It may be conceptualized as the ability to act in a competitive environment due to constant change by creating value for products and services which are based on customer satisfaction [15]. Meanwhile, other scholars explained that workforce agility as the understanding of the workforce that being agile or agile behaviour is useful for organizations to survive in changing market conditions [16]. Based on those definitions, this study defines workforce agility as personal ability of an employee to diagnose and to response the dynamic changes for being survival in competitive environment. In line with the previous study [17], this study has conceptualized workforce agility into three behavioural dimensions, such as proactive, adaptive, and resilience. Proactive behaviour is indicated by the willingness of an employee to take constructive

actions in responding uncertain situation. Adaptive behaviour is related with personal flexibility to modify his or her own behaviour for more suitable in the changing environment. Resilience behaviour is the individual capability to survive efficiently under pressure of a changing environment.

Previous extensive literature study has identified 16 factors which are enabling to promote workforce agility, such as: (a) management support, (b) communication, (c) rewards and recognition, (d) employee empowerment, (e) knowledge sharing, (f) collaboration/networking, (g) employee involvement, (h) psychological empowerment, (i) training and development, (j) renewing technological capability, (k) emotional intelligence, (l) employee commitment, (m) autonomy, (n) new capabilities, (o) learning and innovation, and (p) expanding role of employee [18].This article tries to test the impact of empowering leadership and teamwork on workforce agility. Empowering leadership is relevant to management support, psychological empowerment, training, development, and learning and innovation as the enablers. Meanwhile, teamwork is related to communication, collaboration/networking, employee involvement, and employee commitment as the enablers.

1.2. Teamwork

Teams are dynamic entities of two or more mutually dependent individuals who aim the shared objectives [19]. The whole organization can work as a team if its members develop a common work style, such as constructive, cooperative, and whenever they need to interact with each other[20]. According to other scholars [21], teamwork is a collaborative and sharing activity that is directed towards a common goal. Effective teamwork can motivate employees and improve collective performance in a company. Meanwhile, according to other literature [13], teamwork is a group with individual efforts that can produce a performance that is bigger than the sum of individual inputs. According to previous study[22], there are five important components that influence teamwork which is commonly referred to as the big five of teamwork: (a) team leadership; (b monitoring mutual performance, (c) backup behaviour, (d) adaptability, and (e) team orientations.

Previous empirical study in Iran which involved 120 nurses from Shahid Chamran Hospital as respondents has proved that teamwork is an influential factor on organizational agility [23]. Based on this empirical fact, this article postulates a hypothesis that teamwork supposed to affect workforce agility positively and significantly.

Hypothesis 1: teamwork influences workforce agility significantly.

1.3. Empowering Leadership

Previous scholars have defined empowering leadership into several definitions. Previous study [24] stated that empowering leadership as a set of leader's behaviour in developing level of employee independence and motivation. It is related to the effort of leader in intensify contribution of the followers for their work[25]. Meanwhile, other scholar[26] defines empowering leadership as a leadership approach that endorse the followers to develop their own self-control and participation in collective making decisions. The superiors or supervisors may apply strategies to generate personal experience in working independently. Empowering leadership is the sharing of authority with subordinates to increase intrinsic motivation. Empowering leadership behaviours include encouraging participation in decision making, coaching, leading by example, showing concern, and interacting with employees, and sharing information[27].

Previous studies have measured empowering leadership by different instruments. Previous study [28] measured empowering leadership into three dimensions, such as: power sharing, motivation support, and development support. Other scholar [29] measured empowering leadership in eight teen indicators from two dimensions: autonomy support and development support. Meanwhile, other study measured empowering leadership into eight aspects, such as: delegating, initiative, goal focus, efficacy support, inspiring, coordinating, modelling, and guidance. A quantitative study in Turkey has revealed that empowering leadership has positive and significant impact on workforce agility of faculty members from a private school [30]. Based on these facts, this article formulates a hypothesis that empowering leadership has positive impact significantly on workforce agility. Another empirical study on 78 working group has proved that empowering leadership has a positive influence on learning behaviour in groups [31]. The result indicated that empowering leadership influences teamwork in a group. Based on the interpretation, this article supposes to examine the impact of empowering leadership on the teamwork.

Hypothesis 2: empowering leadership influences workforce agility significantly.

Hypothesis 3: empowering leadership influences teamwork significantly.

2. METHOD

For testing hypothesizes, survey-based study was conducted. Data collection used online questionnaires with convenience sampling method. It's about 378 employees of an Indonesian construction service company - PT Sinar Budi Sentosa was involved as the respondents. The collected data was structured ang analysed by SmartPLS version 3.3. Table 1 display the

respondent profile. Most of them are male (91%), with age less than 36 (87%), has educational background from high schools and vocational education or diploma's degree (83%). They have been working in PT Sinar Budi Sentosa less than six years (66%) with position as staff (91%).

Table 1 Profile of Respondents

Description				
Gender	Male	345	91%	91%
	Female	33	9%	100%
Age	Less than 26 years old	4	1%	4%
	26 - 30 years old	127	34%	38%
	31 - 35 years old	188	50%	87%
	36 - 40 years old	59	13%	100%
Education	High School	240	59%	59%
	Diploma's Degree	23	24%	83%
	Bachelor's degree	91	15%	98%
	Master's degree	24	2%	100%
Years of service	Less than 2 years	59	16%	16%
	3 - 5 years	190	50%	66%
	6 -10 years	129	34%	100%
Position	Staff	344	91%	91%
	Supervisor	21	6%	97%
	Manager	13	3%	100%

Figure 1 demonstrated the proposed research model. Workforce agility (WFAGI) was measured by eleven indicators. Teamwork (TWORK) was described into 16 indicators. Empowering leadership (MLEAD) was measured by nine indicators.
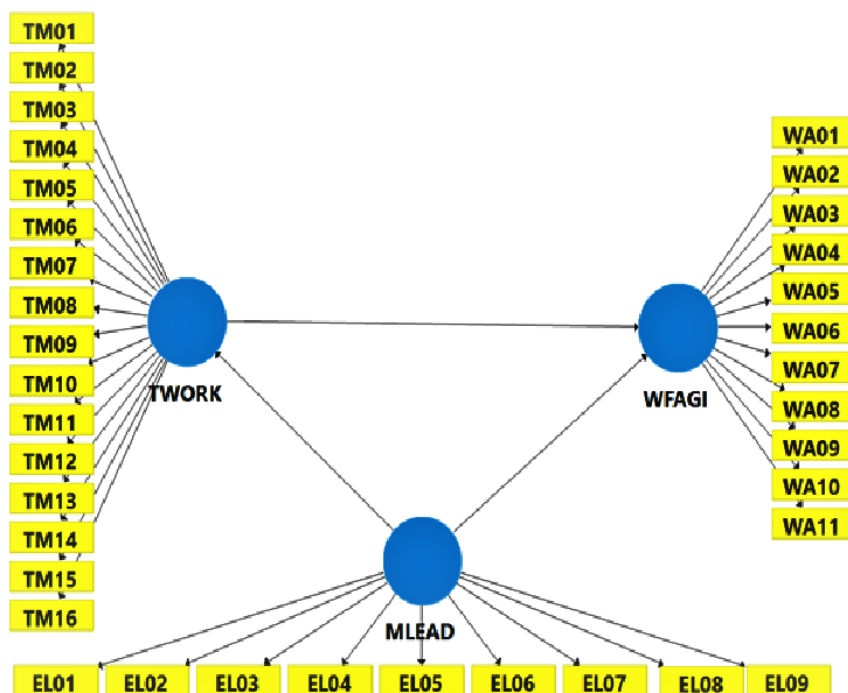

Figure 1 Proposed Research Model

Table 2 and Table 3 display the result of validity and reliability analysis. For validating the indicators, this article uses outer loading or OL scores. An indicator is valid, if its OL score more than 0.61. All indicators from three variables are more than 0.60. All indicators are valid. Meanwhile for validating variables, average variance extracted, or AVE score was used. A variable with AVE score more than 0.5, it indicates as a valid variable. All variables _ WFAGI, TWORK, and MLEAD have AVE score more than 0.5. All variables are valid.

Table 3 displays the result of discriminant validity analysis. All diagonally bold numbers are more than 0.71 and becomes the highest score at each column. It means that all variables are discriminately valid. Meanwhile, reliability analysis used Cronbach's Alphas (CA) or Composite Reliability (CR) scores. A reliable variable has CR or CA score more than 0.7. All variables - WFAGI, TWORK, and MLEAD has CA or CR scores more than 0.7. All variables are reliable. Based on validity and reliability analysis all variables and indicators in the proposed research model are valid and reliable.

Table 2 Validity and Reliability Analysis

Dimension	Item	OL	AVE	CA	CR
Workforce Agility (WFAGI)					
I can predict problems that may occur in my work.	WA01	0.77	0.56	0.92	0.93
I can solve new and complex problems at work.	WA02	0.66			
I look for opportunities to make improvements at work.	WA03	0.76			
I try to solve problems by thinking from a new angle.	WA04	0.72			
I can accept criticism.	WA05	0.72			
I stay up to date at work.	WA06	0.81			
I can adapt to work with a team that has different habits.	WA07	0.76			
I can adapt to new work procedures.	WA08	0.79			
I stay calm when faced with difficult circumstances.	WA09	0.75			
I can work well when dealing with a heavy workload or schedule.	WA10	0.72			
When difficult situations occur, I react by trying to manage the problem.	WA11	0.74			
Teamwork (TWORK)					
I can divide tasks as needed with team members.	TM01	0.72	0.51	0.88	0.90
I can provide backup assistance as needed by team members	TM02	0.67			
I make sure that team members have the necessary needs.	TM03	0.65			
I regularly take the time to look for ways to improve the teamwork process.	TM04	0.78			
Members of my team depend on me for advice and information.	TM05	0.79			
I rely on advice and information from team members.	TM06	0.76			
I can help each other complete tasks whenever needed.	TM07	0.82			
I advise each other how a task can be tackled.	TM08	0.64			
I can work with a variety of other people.	TM10	0.64			
Empowering Leadership (MLEAD)					
My supervisor gave me the opportunity to take responsibility.	EL01	0.74	0.51	0.86	0.89
My supervisor provides help at work.	EL02	0.69			
My supervisor authorizes matters within my department.	EL03	0.72			
My supervisor provides positive support in my work.	EL04	0.72			
My supervisor encourages me to take the initiative.	EL05	0.76			
My supervisor supports me to achieve my goals.	EL06	0.73			
My supervisor provides an example of how to organize work.	EL07	0.71			
My supervisor guides me on how to do my job in the best way.	EL09	0.63			

Table 3 Discriminant Validity Analysis

Variables	1	2	3
[1] Empowering Leadership (MLEAD)	**0.72**		
[2] Teamwork (TWORK)	0.50	**0.71**	
[3] Workforce Agility (WFAGI)	0.57	0.61	**0.75**

Figure 2 shows a result of PLS algorithm analysis. WFAGI was influenced simultaneously by TWORK and MLEAD about 45.9%. There are about 54.1% impact of other influential factors which are not elaborated yet in this article. TWORK was influenced about 25% by MLEAD.
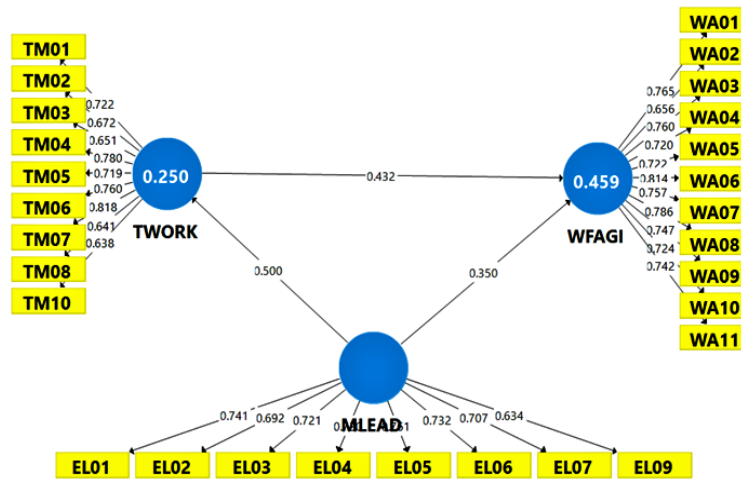
Figure 2 Result of PLS Algorithm Analysis

3. RESULT AND DISCUSSION

For testing hypothesizes, bootstrapping analysis was conducted by using SmartPLS. Figure 3 and Table 4 demonstrates the results. All hypothesizes are accepted. Because all of beta or path coefficients have t-Statistics more than 1.96 or p-Values lower than 0.05.
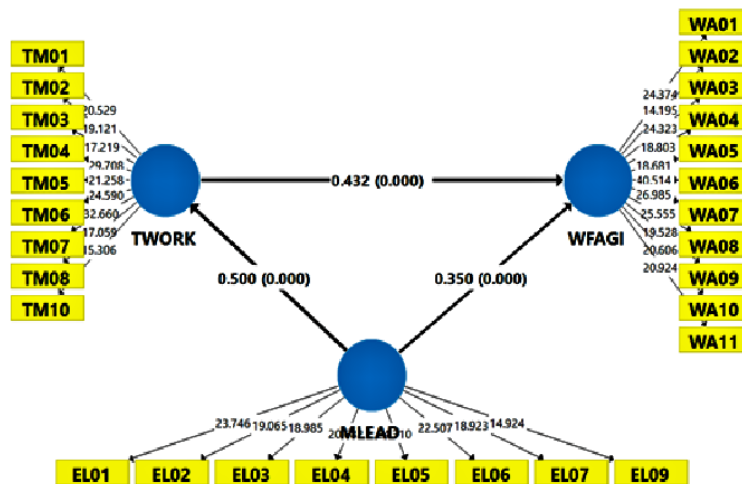

Figure 3 Result of Bootstrapping Analysis

Workforce agility is affected positively and significantly by teamwork (hypothesis 1) and empowering leadership (hypothesis 2). Meanwhile empowering leadership also impact positively and significantly on teamwork (hypothesis 3). Empowering leadership impact workforce agility directly and indirectly. Indirect impact of empowering leadership on workforce agility is through teamwork. Because the direct impact (0.35) is higher than the indirect impact (0.22 = 0.43 x 0.50), it indicates that teamwork does not play a moderating role in the relationship between empowering leadership and workforce agility.

Table 4 Testing Hypothesizes

	Hypothesizes	Beta	t-Statistics	p-Value	Result
H1	Teamwork ==> Workforce Agility	0.43	6.62	0.00	Accepted
H2	Empowering Leadership ==> Workforce Agility	0.35	5,460	0.00	Accepted
H3	Empowering Leadership ==> Teamwork	0.50	8.16	0.00	Accepted

In facing difficult times such as the current COVID-19 pandemic; organizations, groups and individuals are demanded to be able to run a business agilely. Fast and flexible in dealing with risks that arise and take advantage of available opportunities. Business agility is an advantage in surviving during a crisis. Agility

development in every layer of social system becomes strategic initiative. In the context of organizational behaviour, business agility at the organizational level is built on the agility of groups within the organization. Meanwhile, the agility of a group is largely determined by the individual agility of its members. Workforce agility as personal agility becomes important. Every employee is required to be able to work agilely with the implication that it will produce an agile working group and will ultimately affect business agility at the organizational level.

Workforce agility allows employees to remain calm or not panic in dealing with chaotic changes. With this calm, employees can stay focused and rational in overcoming the new problems they face. Not taking reactive actions that have the potential to increase the losses faced by individuals, groups, or organizations. With adequate workforce agility, employees can continue to work even in difficult conditions. Employees can stay focused on achieving business goals while continuing to find solutions to existing problems. In the development of workforce agility, there are many factors that may influence from personal, group, or organizational levels. This article attempts to examine two influential factors from the group level (e.g., empowering leadership and teamwork). Empowering leadership is the influence which comes from superiors or individuals within the organizational structure. This influence tends to be one-way from the superiors to the subordinates. Meanwhile, the second influential factor is teamwork. Teamwork is a representation of group influence which is more horizontal. There is no psychological distance between employees and sources of influence. Both of two factors, empowering leadership and teamwork have a positive and significant impact on workforce agility. Teamwork has higher impact on workforce agility rather than empowering leadership. But empowering leadership has positive impact too on teamwork.

Workforce agility development is more effective when done horizontally through teamwork development rather than vertically through empowering leadership. Although empowering leadership aims to increase the empowerment of team members; but encouraging them to work together is far more effective. By practicing teamwork at work, workforce agility will increase. Moreover, it is strengthened by the ability of superiors to empower leadership, in addition to increasing workforce agility as well as teamwork from group members.

4. CONCLUSION

Workforce agility is influenced significantly by teamwork and empowering leadership. Teamwork as collaborative capability of employee is an essential. By working collaboratively as a team for pursuing collective or common goals, make employee becomes more agile in dealing with difficult times like current COVID-19

pandemic. Ability of superiors in empowering team members is an influential factor too for workforce agility development. By developing empowering leadership of supervisors and managers in construction service companies, it is going to affect directly and indirectly on workforce agility.

REFERENCES

[1] A. Adams-Prassl, T. Boneva, M. Golin, and C. Rauh, "The Impact of the Coronavirus Lockdown on Mental Health: Evidence from the US," *Cambridge-INET Working Paper Series*, pp. 1–21, 2020.

[2] C. Borio, "The Covid-19 economic crisis: dangerously unique," *Business Economics*, vol. 55, no. 4, pp. 181–190, 2020, doi: 10.1057/s11369-020-00184-2.

[3] J. K. Jackson, M. A. Weiss, A. B. Schwarzenberg, R. M. Nelson, K. M. Sutter, and M. D. Sutherland, "Global economic effects of COVID-19," *The Effects of COVID-19 on the Global and Domestic Economy*, pp. 1–221, 2021.

[4] P. K. Ozili, "COVID-19 Pandemic and Economic Crisis: The Nigerian Experience and Structural Causes," *SSRN Electronic Journal*, no. 103131, 2020, doi: 10.2139/ssrn.3567419.

[5] A. Suryahadi, R. Al Izzati, and D. Suryadarma, "The Impact of COVID-19 Outbreak on Poverty: An Estimation for Indonesia (Draft)," *SMERU Working Paper*, vol. April, no. April, pp. 1–20, 2020.

[6] I. Supriyatna, "Industri Jasa Konstruksi Tak Luput dari Hantaman Corona. Suara. com." www.suara.com, 2020.

[7] E. Rusyanto, "Pasar Konstruksi Pulih Pertengahan 2021," 2020. .

[8] M. Khoshlahn and F. S. Ardabili, "The Role of Organizational Agility and Transformational Leadership in Service Recovery Prediction," *Procedia - Social and Behavioral Sciences*, vol. 230, no. May, pp. 142–149, 2016, doi: 10.1016/j.sbspro.2016.09.018.

[9] A. H. Al-Faouri, M. M. Al-Nsour, and M. M. Al-Kasasbeh, "The impact of workforce agility on organizational memory," *Knowledge Management Research and Practice*, vol. 12, no. 4, pp. 432–442, 2014, doi: 10.1057/kmrp.2013.19.

[10] A. Muduli, "Workforce Agility: A Review of Literature," *The IUP Journal of Management Research*, no. 3, pp. 55–65, 2013.

[11] B. Shereheiy, "Relationships between agility strategy, work organizaiton, and workforce agility," University of Louiseville, 1998.

[12] P. Neves and B. Schyns, "Destructive uncertainty: The toxic triangle, implicit theories, and leadership identity during organizational change," in *Organizational Change: Psychological effects and strategies for coping*, Routledge, 2018, pp. 131–141.

[13] S. . Robbins and T. . Judge, *Organizational Behavior*. Pearson, 2017.

[14] J. A. Wagner III and J. R. Hollenbeck, *Organizational Behavior*. Routledge, 2014.

[15] C. G. Worley and E. E. Lawler, "Agility and Organization Design: A Diagnostic Framework," *Organizational Dynamics*, vol. 39, no. 2, pp. 194–204, 2010, doi: 10.1016/j.orgdyn.2010.01.006.

[16] R. Qin and D. A. Nembhard, "Workforce agility for stochastically diffused conditions-A real options perspective," *International Journal of Production Economics*, vol. 125, no. 2, pp. 324–334, 2010, doi: 10.1016/j.ijpe.2010.01.006.

[17] M. K. H. Petermann and H. Zacher, "Agility in the workplace: Conceptual analysis, contributing factors, and practical examples," *Industrial and Organizational Psychology*, vol. 13, no. 4, pp. 599–609, 2020, doi: 10.1017/iop.2020.106.

[18] S. Menon and M. Suresh, "Enablers of workforce agility in engineering educational institutions," *Journal of Applied Research in Higher Education*, vol. 13, no. 2, pp. 504–539, 2020, doi: 10.1108/JARHE-12-2019-0304.

[19] C. F. Peralta, P. R. Lourenço, P. N. Lopes, C. Baptista, and L. Pais, "Team Development: Definition, Measurement and Relationships with Team Effectiveness," *Human Performance*, vol. 31, no. 2, pp. 97–124, 2018, doi: 10.1080/08959285.2018.1455685.

[20] J. P. Sharma and N. Bajpai, "Teamwork a Key Driver in Organizations and Its Impact on Job Satisfaction of Employees in Indian Public and Private Sector Organizations," *Global Business Review*, vol. 15, no. 4, pp. 815–831, 2014, doi: 10.1177/0972150914543417.

[21] M. Khuong and B. Tien, "Factors influencing employee loyalty directly and indirectly through job satisfaction–A study of banking sector in Ho Chi Minh City," *International Journal of current research and academic review*, vol. 1, no. 4, pp. 81–95, 2013.

[22] E. Salas, D. E. Sims, and C. Shawn Burke, "Is there A 'big five' in teamwork?," *Small Group Research*, vol. 36, no. 5, pp. 555–599, 2005, doi: 10.1177/1046496405277134.

[23] B. Parsa, M. Fatehpour, and M. Aghagoli, "The Relationship between Teamwork and Organizational Agility in Nurses of Shahid Chamran Hospital in Saveh," vol. 28, no. 1, pp. 20–26, 2020.

[24] S. Han, C. M. Harold, and M. Cheong, "Examining why employee proactive personality influences empowering leadership: The roles of cognition- and affect-based trust," *Journal of Occupational and Organizational Psychology*, vol. 92, no. 2, pp. 352–383, 2019, doi: 10.1111/joop.12252.

[25] P. Hao, W. He, and L. R. Long, "Why and When Empowering Leadership Has Different Effects on Employee Work Performance: The Pivotal Roles of Passion for Work and Role Breadth Self-Efficacy," *Journal of Leadership and Organizational Studies*, vol. 25, no. 1, pp. 85–100, 2018, doi: 10.1177/1548051817707517.

[26] G. A. S. Rochani, "Empowering leadership , kreativitas karyawan, dan creative self efficacy (studi pada Bank Jatim kantor cabang Trenggalek)," *Jurnal Ilmu Manajemen*, vol. 8, no. 1, pp. 1–8, 2020.

[27] Y. H. Lee, T. E. Lu, C. C. Yang, and G. Chang, "A multilevel approach on empowering leadership and safety behavior in the medical industry: The mediating effects of knowledge sharing and safety climate," *Safety Science*, vol. 117, no. February, pp. 1–9, 2019, doi: 10.1016/j.ssci.2019.03.022.

[28] S. S. Webber, R. M. O'Neill, and K. Dossinger, "The Empowering Leadership Project," *Journal of Management Education*, vol. 44, no. 3, pp. 342–361, 2020, doi: 10.1177/1052562919884717.

[29] S. Amundsen and Ø. L. Martinsen, "Linking Empowering Leadership to Job Satisfaction, Work Effort, and Creativity: The Role of Self-Leadership and Psychological Empowerment," *Journal of Leadership and Organizational Studies*, vol. 22, no. 3, pp. 304–323, 2015, doi: 10.1177/1548051814565819.

[30] S. AL-Ganemi and I. Chalab, "the Effect of Empowering Leadership Behaviors on Workforce Agility: the Mediating Role of Psychological Empowerment: an Analytical Study of the Opinions of Teachers in the Private Schools of Diwaniyah Governorate Center," *International Journal of Transformations in Business Management*, vol. 11, no. 3, pp. 2120–2149, 2021.

[31] A. Wibowo and N. R. Hayati, "Empowering leadership and trust on team learning behavior," *Journal of Management Development*, vol. 38, no. 3, pp. 238–248, 2019, doi: 10.1108/JMD-11-2018-0335.