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Empowering leadership and innovative work behavior in start-up companies: Mediating role of proactive personality

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ABSTRACT

Today, some start-ups in Indonesia have failed in their development, one of the reasons is that they didn't really present innovative solutions to answer society's needs. Therefore, an appropriate innovation strategy is needed. This study aims to determine the influence of empowering leadership on innovative work behavior through the mediating role of proactive personality. This research used a quantitative approach with a cross-sectional survey design. The subjects in this study were 200 startup employees in the Jabodetabek area with a purposive sampling technique, who are aged 20-40 years old, and minimum of one year of work experience. The research instruments used are Janssen's Innovative Work Behavior Scale, Amundsen & Martinsen's Empowering Leadership Scale, and Bateman & Crant's Proactive Personality Scale. The analysis technique used is the Macro PROCESS by Hayes. The outcome demonstrates that the innovative work behavior of start-up employees in the Jabodetabek area is influenced by empowering leadership, which is also mediated by the employees' proactive personality. This research implies that leaders who apply empowering leadership provide more flexibility for employees, so they are likely to be more proactive, which can indirectly increase their innovative work behavior in carrying out work roles and tasks in the company.

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Introduction

Today, Indonesia's creative industry sector is known to be growing, one of which is characterized by the proliferation of start-ups. Start-ups are companies that refer to technology and information-based businesses (Ferdiansyah & Permana, 2022). Reporting from Katadata.co.id, data from Start-Up Ranking states that the number of start-ups in Indonesia as of January 2024 is 2562 start-ups (<u>Databoks</u>, 2024). However, despite the large number of start-up companies in Indonesia, some of them still fail. Some of the startups in Indonesia that are known to have failed include Pegipegi, Rumah.com, Ula, Lummo, JD.ID, Cohive, Qlapa, Dishserve, Bananas, Fabelio, Tumbasin.id, Mobile Premiere League, Beres.id, UangTeman, and many more (Bisnis Tekno, 2023).

As stated by the Minister of Communication and Information, Rudiantara, one of



the causes of start-up failure is that the success rate of start-ups in Indonesia is still relatively low, which is only five percent (Merdeka, 2019). Furthermore, 12 main reasons affect start-up failure, which is insufficient funds (38%), a lack of market (35%), a decline in competition (20%), a lack of a business strategy (19%), policy or legal concerns (18%), pricing concerns (15%), an inappropriate team (14%), an untimely product or inadequate marketing (10%), a subpar product (8%), disputes between the team and investors (7%), a failed pivot (6%), and burnout (5%) (CB Insights, 2021). Not only that, the Bureau of Labor Statistic (BLS) report also found that around 50 percent of start-ups fail in the first four years of building a business, 18 percent fail due to cost issues, and 19 percent of start-ups fail due to intense business competition reported by (Merdeka, 2019)

The tight competition in today's increasingly competitive business world is certainly a challenge for start-up companies to maintain their position. Therefore, an innovation strategy is needed as innovation itself is the main key to the success of a start-up (Salamzadeh, 2015). This is because the existence of innovation can create a competitive advantage, produce something that cannot be done by others, do things better, and introduce new services that are superior, cheap, and fast to answer market demand (Aziz & Samad, 2016). As reported by Wartaekonomi.co.id, a digital economy observer who is also the CEO of PT Duta Sukses Dunia, Yudi Candra, revealed that many start-up companies in Indonesia have failed because they did not really present innovative solutions to answer the needs of society (Warta Ekonomi, 2019). Therefore, the consideration of start-up companies to use the right innovation model strategy is important so that companies can win market competition and minimize the risk of failure.

Several previous studies and empirical evidence conclude that the ability of a company to deliver innovative products/services is related to innovative work behavior (De Jong & Den Hartog, 2008; Janssen, 2000; Scott & Bruce, 1994; Unsworth & Parker, 2002). Innovative work behavior is characterized by a behavior that intentionally creates, introduces, and implements new ideas in order to provide benefits to the work group or organization/company (Janssen, 2000). A recent study highlighted that organizations that fail to innovate risk losing their competitiveness and may eventually be forced out of the market (Shanker et al., 2017). In contrast, organizations that continuously innovate are more likely to achieve higher levels of performance and long-term success (Ogbonnaya & Valizade, 2018).

Employees who demonstrate innovative work behavior are more capable of quickly and accurately recognizing new work conditions, as well as proposing original ideas to improve the quality of services or products offered (<u>Afsar et al., 2018</u>). This is why innovative work behavior is also a critical factor for organizations in achieving competitive advantage, delivering optimal performance outcomes, and ensuring long-term sustainability in order to succeed in a competitive environment (<u>Amalia & Wulansari, 2017</u>; <u>Dayanti & Yulianti, 2023</u>; <u>Yulita et al., 2022</u>). Therefore, innovative work behavior is a necessary and vital behavioral attribute for employees, particularly in start-up companies that face numerous demands and are in the process of growth amid today's competitive technological business landscape (<u>Dayanti & Yulianti, 2023</u>; <u>Puspita et al., 2022</u>; Savitry et al., 2021).

Innovative work behavior is generally impacted by two factors, which are individual factors and organizational factors (Li & Zheng, 2014). On the organizational factor, leadership is believed to hold an important role in employee innovative work behavior because a leader is capable of shaping attitudes and creating conditions that foster the emergence of employees' innovative work behavior (Javed et al., 2019; J. Wu & Lin, 2018). Previous studies have explored the influence of various leadership styles, such as transformational, authentical, and ethical leadership, on innovative work behavior (Ashfaq et al., 2021; Yamak & Eyupoglu, 2021; Yeap, 2023). However, what sets empowering leadership apart is it has a focus on fostering independence and self-direction in employees, which is why empowering leadership is considered one of the most

promising leadership approaches, as its core elements are known to actively encourage and promote innovative work behavior (Biemann et al., 2015; Cheong et al., 2016). Empowering leadership is characterized as a leadership approach where a leader shares authority with their team members and offers growth and motivational assistance to boost their self-esteem, drive, and capacity for independence at work (Amundsen & Martinsen, 2014). A leader who implements empowering leadership will delegate more authority to their employees, encourage them to be responsible for their work, encourage them to make decisions independently on the autonomy given, and be willing to guide, share information, and ask for input from their employees (Sharma & Kirkman, 2015). Empowering leadership has also been shown in several studies to be a predictor of innovative work behavior. Empowering leadership has been shown to influence innovative work behavior in various sectors, ranging from the education sector, service sector, pharmaceutical industry sector, small and medium enterprise sector, to start-up company sector (Gkorezis, 2016; Hassi et al., 2022; Rao et al., 2019; Wihuda et al., 2017; Yusuf & Etikariena, 2023).

Furthermore, it is believed that innovative work behavior itself is a complex phenomenon, which depends on individual psychological characteristics and contextual/organizational attributes (Riaz et al., 2021; Scott & Bruce, 1994). Therefore, quite a lot of research in this leadership field combines contextual attributes and individual psychological attributes, both in the form of moderator or mediator variables, in predicting innovative work behavior (Gkorezis, 2016; Hassi et al., 2022; Wihuda et al., 2017). Since individuals possess distinct personality traits, these differences significantly influence organizational performance (Sagha et al., 2017). To effectively operate in a dynamic and uncertain environment, organizations need to cultivate proactive behavior among employees, as this can significantly enhance their ability to remain competitive (Fuller & Marler, 2009). Proactive personality is a consistent propensity for proactive conduct (Bateman & Crant, 1993). In other words, a proactive personality describes an individual's propensity to display proactive behavior. Proactive personality is an individual's attitude that is profit-oriented, has initiative, dares to do something diligently, and is responsible for everything that is done to make changes to their environment (Seibert et al., 1999)

Additionally, prior studies have shown that proactive personalities influence innovative work behavior (Li et al., 2017; Windiarsih & Etikariena, 2017). A proactive personality has a positive impact on innovative work behavior in teachers. According to these findings, teachers who possess a proactive personality are more likely to exhibit innovative work behavior (Li et al., 2017). There is also a significant relationship between proactive personality and innovative work behavior in BUMN X (Windiarsih & Etikariena, 2017). This study explains that the innovative work behavior displayed by 24% employees comes from the employees' initiative to take advantage of existing opportunities, to make changes to their work environment to be more effective, which will then bring benefits to themselves or to the company.

In addition, other literature has also found a positive impact of empowering leadership on proactive behavior in a company (Singh & Rangnekar, 2020; Wang & Yang, 2021). A leader who applies this empowering leadership style can increase employees' intrinsic motivation by sharing power with their employees and supplying support to them, where this intrinsic motivation will in turn encourage employees' proactive behavior because it can increase role orientation, broad self-efficacy, core task ability, and proactive goal-attempt behavior (Singh & Rangnekar, 2020). Thus, the benefits of a proactive personality are also relevant in the high-tech corporate sector, such as start-up companies, due to rapid changes in technology and market preferences that require companies to be responsive and active to face challenges (Torres et al., 2017). Furthermore, several previous studies have demonstrated that proactive personalities can mediate the effects of specific leadership philosophies on innovative work behavior (Ashfaq et al., 2021; Yamak & Eyupoglu, 2021; Yeap, 2023). As said from trait activation theory (Tett & Burnett, 2003), personality traits such as proactivity are most likely to manifest when individuals are placed in environments that invite, support, and reward such behaviors. A leader has the ability

to create a supportive work environment where employees feel empowered and are encouraged to act independently, which in turn motivates them to put in greater effort and take on more responsibility in their roles (Avolio et al., 2004). As a result, leadership support boosts employees' proactive drive and encourages them to engage in proactive behaviors within the workplace (Wu & Parker, 2017)

Empowering leadership could create the psychological and structural conditions necessary for proactive personality to flourish by delegating authority, encouraging autonomous decision-making, and fostering participation in problem-solving, which this form of behavior could activate proactive tendencies (Amundsen & Martinsen, 2014; Sharma & Kirkman, 2015). Through this activation, employees with proactive personalities are more likely to engage in innovative work behavior (Mubarak et al., 2021). Moreover, when empowered, such individuals are more likely to identify opportunities for improvement and take bold actions that can transform products, services, and processes, which is a hallmark of proactivity and innovation (Li et al., 2017; Yadav et al., 2023). Therefore, along with the massive and intense start-up competition today, this research is considered important and interesting to conduct with the hope that the research results that will be obtained can provide benefits for start-up companies to remain able to survive and compete with competitors through increasing employee innovative work behavior.

Method

Research Design

This research used a quantitative approach whose analysis focuses on numerical data/numbers, which will be processed by statistical methods (Azwar, 2021). The research design used in this research is a cross-sectional survey type of explanatory research. This research is conducted only once within a specific period and uses research instruments to collect numerical data, which is then analyzed using statistical methods before the results are reported and compared with previous studies to determine whether they support existing findings or provide discoveries (Budiastuti & Bandur, 2018). Meanwhile, it is referred to as explanatory research because this study focuses on the causal relationships between the variables being investigated through testing previously proposed hypotheses (Hartono, 2018).

Participants

The participants in this study were start-up employees in the Jabodetabek area (i.e., the greater Jakarta area in Indonesia, encompassing Jakarta, Bogor, Depok, Tangerang, and Bekasi), totalling 200 people, obtained through the purposive sampling technique based on these criteria:

- 1. Start-up employees in the Jabodetabek area
- 2. Aged 20-40 years old
- 3. Employees who work in a start-up that has been operating for at least one year
- 4. Employees who have had one year (minimum) of work experience in the company

Among these criteria, the specific consideration for the researcher is startup employees who work in the Jabodetabek area, as the context of this research focuses on startup companies, and this region was selected because, according to data from the Indonesian Creative Industry Society for Information and Communication Technology (MIKTI) in 2021, the majority of startup companies are concentrated in this geographical area, representing 39.59% of all startups (<u>Databoks, 2022</u>). Data collection was conducted through various online platforms such as Twitter, Instagram, LinkedIn, and WhatsApp. The demographic data of participants are shown in Table 1. The demographic data shows that the majority of respondents are female, and the education level is dominated by a

bachelor's level. Then, this study's respondents were mostly in the age range of 20-25 years, and the majority of respondents' job levels were in staff/assistant positions. In addition, out of a total of 200 respondents who work in start-ups in the Jabodetabek area, the majority of respondents have work experience in the range of 1-3 years, with the most work locations dominated in the Jakarta area. As for the field of business itself, the majority of respondents work in start-ups in the field of e-Commerce and education. Also, most of the respondents in this study work in start-ups classified as Ponies, Cockroaches, and Centaurs.

Table 1Demographic Data of Participants

	Category	Frequency	Percentage	
Gender	Male	68	34%	
	Female	132	66%	
Age	20-25 years old	112	56%	
	26-30 years old	70	35%	
	31-35 years old	14	7%	
	36-40 years old	4	2%	
Education Level	Senior High School	46	23%	
	Diploma	5	2.5%	
	Bachelor	140	70%	
	Master	9	4.5%	
Position	Manager	17	8.5%	
	Supervisor/Coordinator	22	11%	
	Specialist/Analyst	40	20%	
	Staff/Assistant	121	60.5%	
Work Experience	1-3 years	139	69.5%	
om zaponomo	4-6 years	47	23.5%	
	7-9 years	10	5%	
	10-12 years	2	1%	
	>12 years	2	1%	
Work Locations	Jakarta	154	77%	
WOIK LOCATIONS	Bogor	5	2.5%	
	Depok	5	2.5%	
	Tangerang	24	12%	
	Bekasi	12	6%	
D				
Business	Food & Beverage	19	9.5%	
	e-Commerce	44	22%	
	Finance	19	9.5%	
	Health	14	7%	
	Education	40	20%	
	Travel & Accommodation	11	5.5%	
	Agriculture & Livestock	9	4.5%	
	Property	6	3%	
	Logistics	11	5.5%	
	Transportation	4	2%	
	Others	23	11.5%	
Classification	Cockroach	50	25%	
	Ponies	52	26%	
	Centaurs	48	24%	
	Unicom	37	18.5%	
	Decacorn	11	5.5%	
	Hectocorn	2	1%	

Instruments

The Innovative Work Behavior Scale is the tool utilized in this study to measure innovative work behavior (Janssen, 2000). This tool measures idea generation (e.g., "Generating new ideas for difficult issues"), idea promotion (e.g., "Acquiring approval for innovative ideas"), and idea implementation (e.g., "Transforming innovative ideas into useful applications"). It is divided into 3 dimensions and 9 items. The level of innovative work behavior of one individual is considered high when the obtained total scale score is high, and low when the obtained total scale score is low.

The Empowering Leadership Scale is the tool utilized in this study to assess empowering leadership (Amundsen & Martinsen, 2014). This instrument comprises 2 dimensions, which was broken down into 8 aspects and 18 items that measure delegating (e.g., "My leader gives me power"), initiative (e.g., "My leader encourages me to take initiative"), goal-focus (e.g., "My leader is concerned that I reach my goals"), efficacy support (e.g., "My leader listens to me"), inspiring (e.g., "My leader conveys a bright view of the future"), coordinating (e.g., "My leader discusses shared affairs with me"), modelling (e.g., "My leader lets me see how he/she organizes his/her work"), and guidance (e.g., "My leader shows me how I can improve my way of working"). The level of the leader's empowering leadership is considered high when the obtained total scale score is high, and low when the obtained total scale score is low.

The Proactive Personality Scale is the tool utilized in this study to gauge proactive personality (Bateman & Crant, 1993). This unidimensional tool consists of four indicators, each of which is divided into sixteen items that assess the individuals' ability to scan for opportunities (e.g., "I excel at identifying opportunities"), demonstrate initiative (e.g., "If I see something I don't like, I fix it"), take action (e.g., "I love to challenge the status quo"), and persevere until they achieve closure by enacting change (e.g., "When I have a problem, I tackle it head-on"). The level of an individual's proactive personality is considered high when the obtained total scale score is high, and low when the obtained total scale score is low.

All three scales have been translated into Indonesian by a Sworn Translator and have been tested for content validity through expert judgement by an industrial and organizational psychology practitioner. Content validity refers to the extent to which the items in an instrument accurately represent the entire area or content domain that the instrument is intended to measure (<u>Purwanto</u>, 2016). Establishing content validity requires a critical and careful examination to determine whether the content and objectives measured by the instrument truly represent the defined domain.

 Table 2

 Item Discrimination Index

Scale	Item Discrimination Index
Innovative Work Behavior Scale	0.58 - 0.82
Empowering Leadership Scale	0.47 - 0.80
Proactive Personality Scale	0.50 - 0.79

This evaluation is usually carried out by experts in the field, through a process known as expert judgement, to decide whether the instrument can be considered valid. After expert judgement, several items underwent minor revisions, such as sentence simplification and changes in word choices. The three scales also went through the item discrimination index test with the Corrected Item-Total Correlation approach, for which

the limit of criteria for the item selection is $r \ge 0.3$ (Azwar, 2021). Furthermore, the researcher also used the Cronbach Alpha technique in SPSS 21 for Windows for assessing the reliability of each instrument. When an instrument has a Cronbach's Alpha (α) value of ≥ 0.70 , this instrument is considered reliable (Siyoto & Sodik, 2015).

Table 2 shows that the Innovative Work Behavior Scale has discriminant power ranging from 0.58 to 0.82, making it suitable for use. Furthermore, in testing the item's discriminant power of the Empowering Leadership Scale, it is known that the discriminant power ranges from 0.47 to 0.80, making it also suitable for use. Finally, the *proactive personality* scale has discriminant power ranging from 0.50 to 0.79, indicating it is also suitable for use. Thus, the 3 scales are considered able to be used.

Table 3 *Cronbach's Alpha*

Scale	Cronbach's α
Innovative Work Behavior Scale	0.91
Empowering Leadership Scale	0.95
Proactive Personality Scale	0.94

Table 3 shows that the reliability analysis using Cronbach's alpha demonstrates that all 3 scales exhibit excellent internal consistency. The Innovative Work Behavior Scale achieved a Cronbach's alpha coefficient of 0.91, the Empowering Leadership Scale demonstrated the highest reliability with a Cronbach's alpha of 0.95, and the Proactive Personality Scale showed excellent reliability with a Cronbach's alpha of 0.94. All 3 instruments are highly reliable for measuring their respective constructs and are suitable for research purposes.

Data Analysis

To test the hypothesis, this study used an analysis technique, which is the Macro PROCESS bootstrapping technique (<u>Hayes, 2012</u>). Macro PROCESS allows researchers to see if there is an interaction effect and its effect on just one process. The effect between variables can be declared significant if the p-value > 0.05. Meanwhile, the effect of mediation is declared significant if the range between BootLLCI and BootULCI is not equal to 0 (zero).

Results

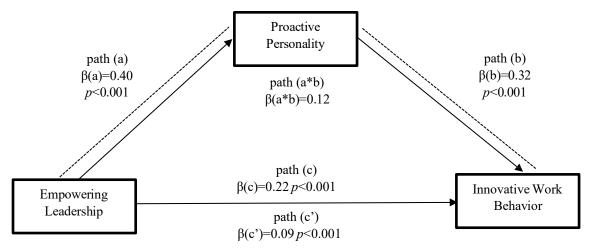
Table 4 provides the regression coefficient (α), significance levels (*p-values*), and the lower and upper CI (confidence interval) for each predictor. Empowering leadership was an important predictor of proactive personality ($\alpha = 0.40$, p < 0.05). Proactive personality was also a significant predictor of innovative work behavior ($\alpha = 0.32$, p < 0.05). And empowering leadership was also a significant predictor of innovative work behavior ($\alpha = 0.09$, p < 0.05). Moreover, it was found that empowering leadership also has an indirect effect on innovative work behavior through the mediation of proactive personality ($\alpha = 0.12$, ULCI 0.07; LLCI 0.19). The results show that the coefficient of the indirect effect between empowering leadership and innovative work behavior is 0.12, with a confidence interval ranging from 0.07 for BootLLCI (lower level for CI) to 0.19 for BootULCI (upper level for CI). Based on these results, since the confidence interval between BootLLCI and BootULCI does not include zero, the indirect effect is statistically significant, which means that empowering leadership has an indirect effect on innovative work behavior through the mediation of proactive personality. Figure 1 shows the mediation effect of proactive personality on the relationship between empowering leadership and innovative work

behavior.

Table 4 *Results of Bootstrapping Techniques Macro PROCESS*

Path	Variable	β	t	95% CI		р
				Lower	upper	
a'	Empowering Leadership → Proactive Personality	0.40	7.82	0.30	0.50	0.00
b'	Proactive Personality → Innovative Work Behavior	0.32	8.93	0.25	0.39	0.00
c'	Empowering Leadership → Innovative Work Behavior	0.09	3.34	0.04	0.15	0.00
a*b	Empowering Leadership → Proactive Personality → Innovative Work Behavior (indirect effect)	0.12	-	0.07	0.19	-

Figure 1
Results of Bootstrapping Techniques Macro PROCESS



Notes:

— Direct effect

----- Indirect effect

Path a: Direct effect of empowering leadership on proactive personality

Path b: Direct effect of proactive personality on innovative work behavior

Path c: Total effect of empowering leadership on innovative work behavior

Path c': Direct effect of empowering leadership on innovative work behavior

Path a*b: Indirect effect of empowering leadership on innovative work behavior through the mediation of proactive personality

Table 5 shows that 23.64% of proactive personality was explained by empowering leadership, 44.39% of innovative work behavior was described by empowering leadership and proactive personality together, and 21.84% of innovative work behavior was explained by empowering leadership. This means that empowering leadership contributes to proactive personality by 23.64%, while the remaining 76.36% is influenced by other variables. Furthermore, the combined influence of empowering leadership and proactive personality on innovative work behavior is approximately 44.39%, with the remaining 55.61% being attributed to other factors or variables. Specifically, empowering leadership alone can predict the emergence of innovative work behavior by 21.84%, whereas the

remaining 78.16% is predicted by other variables.

 Table 5

 Coefficient of Determination

Variables	R	R-Sq	p
Empowering Leadership → Proactive Personality	0.48	0.23	0.00
Empowering Leadership & Proactive			
Personality → Innovative Work Behavior	0.66	0.44	0.00
Empowering Leadership → Innovative Work Behavior	0.46	0.21	0.00

Discussion

The study's findings indicate that innovative work behavior among start-up employees in the Jabodetabek region is positively impacted by empowered leadership. The main characteristics of empowering leadership lie in the provision of autonomy support and development support by leaders to their employees (Amundsen & Martinsen, 2014). Autonomy support is reflected in how leaders influence employees' motivation at work—for instance, by delegating tasks to allow employees to make independent decisions related to their responsibilities, coordinating with employees to enhance goal-oriented effectiveness, encouraging them to use their initiative, demonstrating interest, trust, and confidence in their ability to complete tasks, and fostering an inspiring work atmosphere through inspirational communication. Meanwhile, development support is evident in how leaders guide and provide training for employees to help them improve their skills and competencies.

Through the supports provided in empowering leadership, employees are not constrained by a rigid leadership style, allowing them greater freedom to explore in the workplace, exhibit creative behavior, feel more confident and motivated to innovate, and perform their tasks more innovatively, ultimately enhancing work quality (Chow, 2018; Dehghani et al., 2014; Gkorezis, 2016; Özarallı, 2015). Employees who feel involved in decision-making processes also tend to find greater meaning in their work, which in turn motivates them to develop innovative solutions to problems (Choi et al., 2016). This aligns with the characteristics of start-up companies, which are typically highly innovation-driven in order to remain competitive and grow rapidly. So, it is important for a start-up to have employees who have highly innovative work behavior so that the company can gain more benefit from every opportunity that exists and can afford to produce new products, processes, or services that can answer market needs.

The results of this study support the prior findings that innovative work behavior is significantly positively impacted by empowering leadership (Yadav et al., 2023). It is known that through empowering leadership, employees get the opportunity for the autonomy given to work independently, so as to create a suitable work environment to find the innovative solutions needed. The findings of this study are further supported by another study, which found that innovative work behavior among employees is directly impacted by empowering leadership (Riaz et al., 2021). In this case, leaders who give their employee's opportunity to work independently, those employees will be better able to take initiative, carry responsibility, and manage work tasks to achieve organizational goals, all of which are included in the characteristics of innovative work behavior.

This study's results also reveal that empowering leadership has a positive influence on proactive personality in start-up employees in the Jabodetabek area. A person's innate personality or character also influences how easily they are influenced by other forces, one of the outside variables that may have an impact in this situation is the leadership style that leaders employ (<u>Hofmann & Jones, 2005</u>). Personality traits such as proactivity are most likely to manifest when individuals are placed in environments that invite, support, and reward such behaviors (<u>Tett & Burnett, 2003</u>), which in this context is in a workplace that implements empowering leadership. Many leader behaviors that are part of empowering leadership, such as encouraging employees to participate in decision-making and giving autonomy from bureaucratic restrictions, indicate to employees that their leaders trust them and give them opportunities for personal growth and development (<u>Lee et al., 2018</u>). These conditions also provide a sense of impact, autonomy, competency, and meaningfulness for employees, which can encourage them to use their potential to the fullest by taking initiatives and creating positive alterations in their work roles (Kim & Beehr, 2016; Wong & Giessner, 2018).

The desire to create positive alteration in work is closely related to the characteristics of a proactive personality, which is associated with a person's active efforts to influence change in their environment to be more effective (Delle & Amadu, 2016). The existence of this proactive personality leads employees to always look for solutions when they are experiencing a challenge (Wang et al., 2017). This is because proactive employees equip themselves with good coping behavior in handling certain situations (Mubarak et al., 2021). Thus, the application of empowering leadership in the workplace can contribute to increasing employees' proactive personality through the empowerment support provided. The results of this study are consistent with a prior study, which showed that employee proactivity is positively impacted by empowering leadership (Singh et al., 2023). This is because employees feel they have power over the work autonomy given by their leaders, who apply an empowering leadership style so that they tend to engage in proactive behavior. In addition, this study also supports another findings that empowering leadership has a direct effect on employee proactive work behavior (Wang & Yang, 2021).

Additionally, this study showed that innovative work behavior among start-up employees in the Jabodetabek area was positively impacted by proactive personality. Based on the organizational perspective, the existence of this proactive personality give an essential role in increasing the creativity and novelty of employee thinking in offering useful new ideas because employees who have proactive personality are good at seeing opportunities, being able to take initiative, taking risks, and being persistent, so they are less concerned about their work, more receptive to innovation, resilient to stress, and have positive views of their efficacy (Han et al., 2014; Pan et al., 2021). Employees with proactive personalities are known as risk-takers who are highly committed and creative (Mubarak et al., 2021). They consider complex situations as personal challenges, in solving them, this behavior also leads to their innovative work behavior in the workplace. The company itself also needs innovation to remain able to contend with its competitors (Ullah et al., 2023). This research also proves that a proactive personality can be a predictor of the emergence of innovative work behavior in the workplace.

Furthermore, earlier research has shown that proactive personalities have a considerable favorable impact on employees' innovative work behavior, which supports these findings (Ullah et al., 2023). According to the findings, the primary personality trait that encourages employees to engage in innovative work behavior is a proactive personality. In addition, these findings are also in line with prior research that proactive personality has a direct positive effect on employee innovative work behavior (Mubarak et al., 2021). These findings show how the work environment affects the emergence of innovation, so they recommend that companies prepare an environment that can ignite employees' proactive personality, which will then help foster their innovative work behavior.

Moreover, a proactive personality has been shown to mediate the relationship between empowering leadership and innovative work behavior among start-up employees in the Jabodetabek area. These results showed that empowering leadership can indirectly boost innovative work behavior through proactive personality, in addition to having a direct impact on it. This is because the employees get adequate freedom from their leaders who apply empowering leadership, so they show more desire to complete work tasks based on their exploration and initiative (Gkorezis, 2016). This is consistent with the empowerment theory, which holds that psychological empowerment that cultivates a sense of impact, autonomy, competency, and meaningfulness can boost employees' intrinsic motivation to take initiative and make positive changes in their work roles in order to fully utilize their potential (Kim & Beehr, 2016; Wong & Giessner, 2018). On the other side, based on trait activation theory (Tett & Burnett, 2003), personality traits such as proactivity are most likely to manifest when individuals are placed in environments that invite, support, and reward such behaviors. In other words, when employees are placed in an environment that gives them a sense of autonomy and feels empowered, it can boost them to be more proactive in continuously innovating.

Employees with a proactive personality are able to be active in their work roles, identify opportunities, show personal initiative, and persist in their desire to make constructive changes in the work environment (Crant, 1995). Then, these proactive actions encourage employees to explore, create, and implement new ideas (Javed et al., 2019). Additionally, this encourages the innovative spirit of employees, which shows up in the form of creative work practices. Therefore, when leaders adopt empowering leadership, employees feel empowered by the support they receive, which is why proactive personalities can operate as a mediator in the relationship between empowering leadership and innovative work behavior. Then, it increases their intrinsic motivation to carry out a series of proactive actions such as seeking new opportunities, showing initiative, taking risks, and making persistent efforts to change and make their work environment as optimal as possible. Employees with proactive personalities are therefore less worried about their work, more receptive to innovation, resilient to stress, and have positive views of their abilities. This ultimately results in an increase in their innovative work behavior at work. Thus, the flexibility provided by leaders through empowering leadership is able to make employees more proactive, which can indirectly simultaneously increase their innovative work behavior in carrying out work roles and tasks in the workplace.

This finding is in line with the prior research, which examines some specific leadership philosophies on innovative work behavior with mediation of proactive personality, including transformational leadership (Ashfaq et al., 2021), ethical leadership (Yeap, 2023), and authentic leadership (Yamak & Eyupoglu, 2021). This finding is in line with the three prior studies that provide results that proactive personality is able to provide a mediating role in the influence of certain leadership styles on innovative work behavior. Thus, it can be concluded that other leadership styles besides authentic leadership, transformational leadership, or ethical leadership can influence employees' innovative work behavior through the mediation of proactive personality, namely the empowering leadership style.

While prior studies have explored transformational, authentical, and ethical leadership as antecedents of innovative work behavior through proactive personality (Ashfaq et al., 2021; Yamak & Eyupoglu, 2021; Yeap, 2023). This study uniquely positions empowering leadership within that framework. It adds to the academic discourse by identifying a previously underexplored mediating role of proactive personality in the empowering leadership and innovation linkage. It means that these findings provide new theoretical contributions related to the topic of the influence of empowering leadership on innovative work behavior through the mediating role of proactive personality.

Practically, the study's findings can be a guide for leaders to foster and enhance employees' innovative work behavior in the workplace. In the competitive and fast-paced world of start-ups, placing or training leaders with an empowering leadership style can be a strategic decision. These leaders catalyze both proactivity and innovation, enhancing organizational agility and performance (Mubarak et al., 2021; Wang & Yang, 2021).

Leaders also could foster a work culture that values autonomy, competence, and empowerment, because when employees feel empowered and psychologically safe, they are more likely to proactively generate novel ideas and persist in implementing them (Crant, 2000; Kim & Beehr, 2016).

The scale used in this study is not adapted, but the result of translation from the original scale, so it does not yet have construct validity. Future researchers who are interested in raising similar research topics can further consider adapting the measuring instrument first, the Innovative Work Behavior Scale, the Empowering Leadership Scale, or the Proactive Personality Scale, so that it could be more accurate and representative in producing research data and can be used regularly for future researchers. In addition, the context of the start-up sample in this study is limited to the Jabodetabek area, and the findings may not be fully generalizable to start-ups in other regions outside the Jabodetabek area. Therefore, future research is encouraged to consider a broader geographical scope in order to obtain results that are more representative and comprehensive.

Conclusion

According to this study, a proactive personality acts as a mediator between empowering leadership and innovative work behavior. This study implicated that leaders who apply empowering leadership provide more flexibility for employees, so they are likely to be more proactive, which can indirectly increase their innovative work behavior in carrying out work roles and tasks in the company.

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Declarations

Author contribution.

The first author is responsible for conducting research and writing manuscripts for scientific papers. The second author is responsible for guiding research and manuscript writing, as well as funding.

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References

- Afsar, B., Cheema, S., & Bin Saeed, B. (2018). Do nurses display innovative work behavior when their values match with hospitals' values? *European Journal of Innovation Management*, 21(1), 157–171. https://doi.org/10.1108/EJIM-01-2017-0007
- Amalia, S. R., & Wulansari, N. A. (2017). Pengaruh *person organization fit* terhadap perilaku kerja inovatif melalui pemberdayaan psikologis sebagai mediasi pada karyawan KSPPS di Semarang [The influence of person organization fit on innovative work behavior through psychological empowerment as a mediator in KSPPS employees in Semarang]. *Management Analysis Journal*, 6(2), 223–232. https://doi.org/10.15294/maj.v6i2.18932
- Amundsen, S., & Martinsen, Ø. L. (2014). Empowering leadership: Construct clarification, conceptualization, and validation of a new scale. *The Leadership Quarterly*, 25(3), 487–511. https://doi.org/10.1016/j.leaqua.2013.11.009
- Ashfaq, F., Abid, G., Ilyas, S., & Hasnain, A. (2021). How transformational leadership influences innovative behavior: The mediating role of psychological empowerment and proactivity of

- employees. *Independent Journal of Management & Production*, 12(1), 241–264. https://doi.org/10.14807/ijmp.v12i1.1162
- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, 15(6), 801–823. https://doi.org/10.1016/j.leaqua.2004.09.003
- Aziz, N. N. A., & Samad, S. (2016). Innovation and competitive advantage: Moderating effects of firm age in foods manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, *35*, 256–266. https://doi.org/10.1016/S2212-5671(16)00032-0
- Azwar, S. (2021). *Penyusunan skala Psikologi* [Compilation of psychological scale]. Pustaka Pelajar.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior. *Journal of Organizational Behavior*, 14(2), 103–118. https://doi.org/10.1002/job.4030140202
- Biemann, T., Kearney, E., & Marggraf, K. (2015). Empowering leadership and managers' career perceptions: Examining effects at both the individual and the team level. *Leadership Quarterly*, 26(5), 775–789. https://doi.org/10.1016/j.leaqua.2015.03.003
- Budiastuti, D., & Bandur, A. (2018). *Validitas dan reliabilitas penelitian* [Validity and reliability of research]. Penerbit Mitra Wacana Media.
- CB Insights. (2021). The top 12 reasons startups fail. *CB Insights*. https://www.cbinsights.com/research/report/startup-failure-reasons-top/
- Cheong, M., Spain, S. M., Yammarino, F. J., & Yun, S. (2016). Two faces of empowering leadership: Enabling and burdening. *The Leadership Quarterly*, 27(4), 602–616. https://doi.org/10.1016/j.leaqua.2016.01.006
- Choi, S. B., Kim, K., Ullah, S. M. E., & Kang, S. W. (2016). How transformational leadership facilitates innovative behavior of Korean workers: Examining mediating and moderating processes. *Personnel Review*, 45(3), 459–479. https://doi.org/10.1108/PR-03-2014-0058
- Chow, I. H. S. (2018). The mechanism underlying the empowering leadership-creativity relationship. *Leadership & Organization Development Journal*, 39(2), 202–217. https://doi.org/10.1108/LODJ-03-2016-0060
- Crant, J. M. (1995). The proactive personality scale and objective job performance among real estate agents. *Journal of Applied Psychology*, 80(4), 532–537. https://doi.org/10.1037/0021-9010.80.4.532
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management*, 26(3), 435–462. https://doi.org/10.1177/014920630002600304
- Dayanti, P. R., & Yulianti, P. (2023). How do servant leadership and knowledge sharing trigger innovative work behaviors among millennials at start-up businesses? *Journal of Theoretical and Applied Management*, 16(1), 95–106. https://doi.org/10.20473/jmtt.v16i1.43224
- De Jong, J. P., & Den Hartog, D. (2008). Innovative work behavior: Measurement and validation. *EIM Business and Policy Research*, 8(1), 1–27. https://doi.org/10.1111/j.1467-8691.2010.00547.x
- Dehghani, S., Gharooni, A., & Arabzadeh, A. (2014). Staff empowerment, entrepreneurial behaviors and organizational efficiency in Iranian headquarter education. *Procedia Social and Behavioral Sciences*, 109, 1130–1141. https://doi.org/10.1016/j.sbspro.2013.12.600
- Delle, E., & Amadu, I. M. (2016). Proactive personality and entrepreneurial intention: Employment status and student level as moderators. *International Journal of Small Business and Entrepreneurship Research*, 3(4), 1-13. https://www.eajournals.org/wp-content/uploads/Proactive-Personality-and-Entrepreneurial-Intention-Employment-Status-and-Student-Level-as-Moderators.pdf
- Ferdiansyah, O., & Permana, E. (2022). Peran start-up untuk pengembangan kewirausahaan mahasiswa pasca pandemi covid 19 di Indonesia [The role of start-ups in developing student entrepreneurship after the covid-19 pandemic in Indonesia]. *Jurnal Riset Pendidikan Ekonomi*, 7(2), 151–159. https://doi.org/10.21067/jrpe.v7i2.6828
- Fuller, B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the

- proactive personality literature. *Journal of Vocational Behavior*, 75(3), 329–345. https://doi.org/10.1016/j.jvb.2009.05.008
- Gkorezis, P. (2016). Principal empowering leadership and teacher innovative behavior: A moderated mediation model. *International Journal of Educational Management*, 30(6), 1030–1044. https://doi.org/10.1108/IJEM-08-2015-0113
- Han, Y., Wang, M., & Dong, L. (2014). Role conflict and the buffering effect of proactive personality among middle managers. *Social Behavior and Personality*, 42(3), 473–486. https://doi.org/10.2224/sbp.2014.42.3.473
- Hartono, J. (2018). Strategi penelitian bisnis [Business research strategy]. Penerbit ANDI.
- Hassi, A., Rohlfer, S., & Jebsen, S. (2022). Empowering leadership and innovative work behavior: The mediating effects of climate for initiative and job autonomy in Moroccan SMEs. *EuroMed Journal of Business*, 17(4), 503–518. https://doi.org/10.1108/EMJB-01-2021-0010
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable moderation, mediation, and conditional process modeling [White paper]. https://imaging.mrc-cbu.cam.ac.uk/statswiki/FAQ/SobelTest?action=AttachFile&do=get&target=process.pdf
- Hofmann, D. A., & Jones, L. M. (2005). Leadership, collective personality, and performance. *Journal of Applied Psychology*, 90(3), 509–522. https://doi.org/10.1037/0021-9010.90.3.509
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287–302. https://doi.org/10.1348/096317900167038
- Javed, B., Naqvi, S. M. M. R., Khan, A. K., Arjoon, S., & Tayyeb, H. H. (2019). Impact of inclusive leadership on innovative work behavior: The role of psychological safety. *Journal* of Management and Organization, 25(1), 117–136. https://doi.org/10.1017/jmo.2017.3
- Databoks. (2024). Awal 2024, Indonesia punya startup terbanyak di ASEAN [Early 2024, Indonesia have the most startups in ASEAN]. Databoks. https://databoks.katadata.co.id/datapublish/2024/01/11/awal-2024-indonesia-punya-startup-terbanyak-di-asean
- Databoks. (2022). Ini wilayah dengan startup terbanyak di Indonesia [This is region with the most startups in Indonesia]. Databoks. https://databoks.katadata.co.id/datapublish/2022/05/25/ini-wilayah-dengan-startup-terbanyak-di-indonesia
- Kim, M., & Beehr, T. A. (2016). Psychological states linking empowering leadership to follower behaviors. *Academy of Management Proceedings*, 2016(1), 16537. https://doi.org/10.5465/ambpp.2016.16537abstract
- Lee, A., Willis, S., & Tian, A. W. (2018). Empowering leadership: A meta-analytic examination of incremental contribution, mediation, and moderation. *Journal of Organizational Behavior*, 39(3), 306–325. https://doi.org/10.1002/job.2220
- Li, M., Liu, Y., Liu, L., & Wang, Z. (2017). Proactive personality and innovative work behavior: The mediating effects of affective states and creative self-efficacy in teachers. *Current Psychology*, 36, 697–706. https://doi.org/10.1007/s12144-016-9457-8
- Li, X., & Zheng, Y. (2014). The influential factors of employees' innovative behavior and the management advices. *Journal of Service Science and Management*, 7(6), 446–450. https://doi.org/10.4236/jssm.2014.76042
- Merdeka.com. (2019). *Menkominfo: Lebih Banyak Startup Gagal Dibanding Berhasil di Indonesia* [Minister of Communication and Information: More Startups Fail Than Succeed in Indonesia]. Merdeka. https://www.merdeka.com/uang/menkominfo-lebih-banyak-startup-gagal-dibanding-berhasil-di-indonesia.html
- Mubarak, N., Khan, J., Yasmin, R., & Osmadi, A. (2021). The impact of a proactive personality on innovative work behavior: The role of work engagement and transformational leadership. *Leadership and Organization Development Journal*, 42(7), 989–1003. https://doi.org/10.1108/LODJ-11-2020-0518
- Ogbonnaya, C., & Valizade, D. (2018). High performance work practices, employee outcomes and organizational performance: A 2-1-2 multilevel mediation analysis. *The International Journal of Human Resource Management*, 29(2), 239–259.

- https://doi.org/10.1080/09585192.2016.1146320
- Özarallı, N. (2015). Linking empowering leader to creativity: The moderating role of psychological (felt) empowerment. *Procedia Social and Behavioral Sciences*, 181, 366–376. https://doi.org/10.1016/j.sbspro.2015.04.899
- Pan, B., Song, Z., & Wang, Y. (2021). The relationship between preschool teachers' proactive personality and innovative behavior: The chain-mediated role of error management climate and self-efficacy. *Frontiers in Psychology*, 12, 1-12. https://doi.org/10.3389/fpsyg.2021.734484
- Purwanto, E. (2016). *Metodologi penelitian kuantitatif* [Quantitative research methodology]. Pustaka Pelajar.
- Puspita, M., Yuniarsih, T., & Wibowo, L. A. (2022). The influence of transformational leadership and knowledge sharing on innovative work behavior of millenial employees in start-up companies. *Proceedings of the 6th Global Conference on Business, Management, and Entrepreneurship (GCBME 2021)*, 418–423. https://doi.org/10.2991/aebmr.k.220701.078
- Rao Jada, U., Mukhopadhyay, S., & Titiyal, R. (2019). Empowering leadership and innovative work behavior: A moderated mediation examination. *Journal of Knowledge Management*, 23(5), 915–930. https://doi.org/10.1108/JKM-08-2018-0533
- Riaz, A., Shahid, M., & Ali, Q. (2021). A moderated mediation model of empowering leadership and employees' innovative work behavior. *Journal of Management and Research*, 8(2), 1–15. https://doi.org/10.29145/jmr/82/09
- Sagha, H., Deng, J., & Schuller, B. (2017). The effect of personality trait, age, and gender on the performance of automatic speech valence recognition. 2017 Seventh International Conference on Affective Computing and Intelligent Interaction (ACII), 86–91. https://doi.org/10.1109/ACII.2017.8273583
- Salamzadeh, A. (2015). Innovation accelerators: Emergence of startup companies in Iran. Journal of Enterprising Communities: People and Place in the Global Economy, 11(4), 456-479. https://ssm.com/abstract=2618170
- Savitry, N. Z., Sulastiana, M., & Yanuarti, N. (2021). The effects of learning climate on innovative work behavior in digital start-up company. *Almana: Jurnal Manajemen Dan Bisnis*, 5(1), 47–53. https://doi.org/10.36555/almana.v5i1.1536
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: a path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607. https://doi.org/10.2307/256701
- Seibert, S. E., Grant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416–427. https://doi.org/10.1037/0021-9010.84.3.416
- Shanker, R., Bhanugopan, R., van der Heijden, B. I. J. M., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior*, 100, 67–77. https://doi.org/10.1016/j.jvb.2017.02.004
- Sharma, P. N., & Kirkman, B. L. (2015). Leveraging leaders: A literature review and future lines of inquiry for empowering leadership research. *Group and Organization Management*, 40(2), 193–237. https://doi.org/10.1177/1059601115574906
- Singh, A., Nazir, O., & Thomas, G. (2023). Demystifying the nexus between empowering leadership and employee proactivity: A solicitation of person-environment theory. *Current Issues in Tourism*, 26(11), 1878–1893. https://doi.org/10.1080/13683500.2022.2162862
- Singh, A., & Rangnekar, S. (2020). Empowering leadership in hospital employees: Effects on goal orientation, job conditions, and employee proactivity. *International Journal of Productivity and Performance Management*, 69(7), 1497–1519. https://doi.org/10.1108/JJPPM-03-2019-0132
- Siyoto, S., & Sodik, A. (2015). *Dasar metodologi penelitian* [Basic research methodology]. Literasi Media Publishing.
- Bisnis.com (2023). 15 startup besar yang tutup dan phk di RI 2023, Pegipegi hingga JD.ID [15 big startups that closed and layoffs in RI 2023, Pegipegi to JD.ID]. *Bisnis.com Tekno*. https://teknologi.bisnis.com/read/20231222/266/1726326/15-startup-besar-yang-tutup-dan-phk-di-ri-2023-pegipegi-hingga-jdid/2

- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88(3), 500–517. https://doi.org/10.1037/0021-9010.88.3.500
- Torres, F. C., Espinosa, J. C., Dornberger, U., & Acosta, Y. A. C. (2017). Leadership and employees' innovative work behavior: Test of a mediation and moderation model. *Asian Social Science*, 13(9), 9-25. https://doi.org/10.5539/ass.v13n9p9
- Ullah, I., Hameed, R. M., & Mahmood, A. (2023). The impact of proactive personality and psychological capital on innovative work behavior: Evidence from software houses of Pakistan. *European Journal of Innovation Management*, 27(6), 1967-1985. http://dx.doi.org/10.1108/EJIM-01-2022-0022
- Unsworth, K. L., & Parker, S. K. (2002). Proactivity and innovation: Promoting a new workforce for the new workplace. *The New Workplace*, 175–196. https://doi.org/10.1002/9780470713365.ch10
- Wang, C. J., & Yang, I. H. (2021). Why and how does empowering leadership promote proactive work behavior? An examination with a serial mediation model among hotel employees. *International Journal of Environmental Research and Public Health*, 18(5), 1–18. https://doi.org/10.3390/ijerph18052386
- Wang, Z., Zhang, J., Thomas, C. L., Yu, J., & Spitzmueller, C. (2017). Explaining benefits of employee proactive personality: The role of engagement, team proactivity composition and perceived organizational support. *Journal of Vocational Behavior*, 101, 90–103. https://doi.org/10.1016/j.jvb.2017.04.002
- Wihuda, F., Kurniawan, A. A., Kusumah, A. I., & Adawiyah, W. R. (2017). Linking empowering leadership to employee service innovative behavior: A study from the hotel industry. *Tourism*, 65(3), 294–313. https://hrcak.srce.hr/187101
- Windiarsih, R., & Etikariena, A. (2017). Hubungan antara kepribadian proaktif dan perilaku kerja inovatif di BUMN x [The relationship between proactive personality and innovative work behavior in BUMN x]. *Jurnal Psikogenesis*, 5(2), 123–134. http://academicjournal.yarsi.ac.id/index.php/
- Warta Ekonomi (2019). Ini alasan 90 persen startup di indonesia gagal [This is the reason 90 percent of startups in indonesia fail]. *Warta Ekonomi*. https://wartaekonomi.co.id/read215393/ini-alasan-90-persen-startup-di-indonesia-gagal.
- Wong, S. I., & Giessner, S. R. (2018). The thin line between empowering and laissez-faire leadership: An expectancy-match perspective. *Journal of Management*, 44(2), 757–783. https://doi.org/10.1177/0149206315574597
- Wu, C. H., & Parker, S. K. (2017). The role of leader support in facilitating proactive work behavior: A perspective from attachment theory. *Journal of Management*, 43(4), 1025–1049. https://doi.org/10.1177/0149206314544745
- Wu, J., & Lin, Y. (2018). Interaction between the different leadership styles on innovative behavior based on organizational culture in ecological industry: Empirical research from china. *Ekoloji Dergisi*, 27(106), 643–649. e-ISSN 1300 1361
- Yadav, R., Prakash, C., & Dalal, A. (2023). Empowering leadership and innovative work behavior: Mediating effect of psychological empowerment. *Pakistan Journal of Commerce and Social Science*, 17(1), 1–20. e-ISSN 2309-8619
- Yamak, O. U., & Eyupoglu, S. Z. (2021). Authentic leadership and service innovative behavior: Mediating role of proactive personality. *SAGE Open*, 11(1), 1-15. https://doi.org/10.1177/2158244021989629
- Yeap, S. B. (2023). Did ethical leadership help to increase academic staff's innovative work behavior? The mediating role of intrinsic motivation and proactive personality. *Current Psychology*, 43, 9625-9637. https://doi.org/10.1007/s12144-023-04960-z
- Yulita, A., Rahmat, A., & Bastian, A. (2022). Pengaruh empowering leadership terhadap perilaku kerja inovatif dengan mediasi berbagi pengetahuan [The influence of empowering leadership on innovative work behavior through mediation of knowledge sharing]. *Jurnal Komunitas Sains Manajemen*, 1(2), 118–126. e-ISSN 2828-660X
- Yusuf, M. P., & Etikariena, A. (2023). Perilaku kerja inovatif pada perusahaan rintisan: Peran kepemimpinan inklusif, keamanan psikologis, dan pemberdayaan psikologis [Innovative work behavior in startups: The role of inclusive leadership, psychological safety, and

psychological empowerment]. *Gadjah Mada Journal of Psychology (GamaJoP)*, 9(1), 101. https://doi.org/10.22146/gamajop.78672