

Unlocking Employee Proactivity: Exploring the Mediating Roles of Creativity and Interpersonal Skills in Transmitting Grit

Irvandi Gustari^{1*}, Widodo Widodo²

¹Lecturer in Doctoral Program in Economics, Postgraduate School, Pancasila University, Indonesia

²Social Science Education Department, Postgraduate Faculty, Universitas Indraprasta PGRI, Indonesia
irvandigustari@yahoo.com (Corresponding author), widmag@gmail.com

Abstract. This study examines how the personality trait of grit influences employees' creativity, interpersonal skills, and indispensable Proactive Work Behaviors (PWB) essential for the success of an organization. According to survey data from 500 employees in private Indonesian companies, individuals characterized by grit and unwavering commitment to long-term objectives showed increased levels of creativity, collaboration, and proactive initiative. In addition, the study indicates a positive correlation between grit and PWB, mediated by creativity and interpersonal skills, despite limited generalizability to specific industries. This preliminary evidence underscores grit's role in enhancing creativity and interpersonal skills, fostering PWB among employees, and encouraging practical implementation in organizational practices.

Keywords: Grit, Creativity, Interpersonal Skills, Proactive Work Behavior (PWB).

1. Introduction

Every organization requires employees to show Proactive Work Behavior (PWB), particularly profit-oriented businesses that are faced with the challenges of intense competition and uncertainty in an increasingly unpredictable future. PWB of employees plays a crucial role in forming empirically solid connections with individual, work-related, and team outcomes (Pratama et al., 2023). On an individual level, proactiveness stimulates career satisfaction (Smithikrai, 2022), enhances performance (Junker et al., 2022, Gunawan & Widodo, 2023), enhance competence (Bark et al., 2022), and fosters innovative work behavior (Nurjaman et al., 2019). Additionally, PWB enhances increased work motivation, impacting total employee performance (Ying et al., 2022). Fay et al. (2022) showed that proactiveness contributes to the development of work meaningfulness among employees. The increasing attention from practitioners is significant, specifically considering the situation in workplaces where passive employees outnumber proactive counterparts. These scenarios are not in accordance with the actual needs of companies, which demand proactive responses to address various challenges, competition, and future uncertainty.

PWB is an individual's proactive engagement in work, making necessary adjustments based on actual workplace conditions. This multifaceted phenomenon includes self-initiative, anticipatory actions, and proactive measures such as leading, voicing ideas, innovating independently, and problem prevention (Boonyarit, 2023). Positive changes initiated at work reflect PWB (Cai et al., 2019), and actions taken to enhance or create new opportunities also fall within the scope (Zheng et al., 2020). PWB comprises workplace efforts and behaviors starting with an individual and adopted by other staff members to overcome obstacles and achieve objectives (Hou & Huang, 2021). Li (2020) stated that PWB includes two traits, namely consciously adjusting the surroundings of employees and engaging in deliberate action planning, consisting of deciding on, modifying, and achieving intended outcome. Furthermore, PWB is characterized by four indicators, including taking charge, voice, problem prevention, and individual innovation (Parker & Collins, 2010).

PWB is not a spontaneous occurrence but is influenced by several factors, including grit, creativity, and interpersonal skills. Hermita et al. (2023) findings show that grit significantly impacts PWB, with persistence, a key grit indicator, correlating with innovation as a parameter (Corradini & D'Ippolito, 2022, Holl et al., 2023). Grit is the tendency to work hard, diligently, and persistently consistently in the long term to achieve goals, including responding to challenges and facing difficulties and failure. Scholars also assert that creativity influences innovation and innovative behavior as crucial aspects of PWB (Akbari et al., 2019, Asbari et al., 2021, Hussain & Wahab, 2021, Gunawan & Widodo, 2021, Juliana et al., 2021). Creativity is the ability to generate new, original, unique, valuable, and useful ideas, concepts, approaches, strategies, services, or goods. Furthermore, Gençer (2019) and Hasan et al. (2020) stated that interpersonal skills play a positive role in PWB. Interpersonal skills are the capability to communicate verbally and non-verbally in building social interactions with other people effectively.

Other studies show that grit not only influences PWB but also positively impacts creativity (Widodo & Gunawan, 2021, Seo & Lee, 2023) and interpersonal skills (Yang et al., 2022). However, conflicting findings in previous studies have created a gap requiring scientific clarification to prevent confusion among practitioners and academics. Gonlepa et al. (2023) showed a connection between creativity and grit, while Bas et al. (2015) established a significant relationship between innovation in PWB and grit. Previous research's contradictory results have created a gap requiring scientific clarification through research to avoid confusion among practitioners, academics, and researchers. Based on the discrepancies, this study aims to explore the influence of grit, creativity, and interpersonal skills on employees' PWB, impact of grit on creativity and interpersonal skills, and to establish a new empirical model showing the causal relationship between grit and PWB through creativity and interpersonal skills. The findings are expected to enhance understanding of the causal relationship between grit, creativity, interpersonal skills, and PWB through a mediation mechanism. Specifically for managers, grit and PWB serve as essential assets for achieving company objectives, winning competition, and addressing future

challenges. Therefore, managers need support from employees' creativity and interpersonal skills to achieve success.

2. Literature Review and Hypothesis Development

2.1. Grit and Proactive Work Behavior (PWB)

Grit gained popularity due to its substantial influence on the lives of individuals and organizations. Scholars at the individual level empirically confirmed the significant effect of grit on performance (Faust & Rosendale, 2023, Wetzler et al., 2023, Cormier et al., 2023) and organizational citizenship behavior (Farroukh et al., 2023). In an educational context, grit influences student academic achievement (Alhadabi & Karpinski, 2020, Vinson et al., 2023) and enhances teachers' professional competence (Widodo, 2021), impacting lecturer job satisfaction through affective commitment (Gustari & Widodo, 2021). Furthermore, at the organizational level, grit showed a positive impact on organizational performance (Lee, 2022).

Duckworth et al. (2011) defined grit as the inclination to pursue challenging long-term objectives with tenacity and ardor, reiterating persistence as a key to long-term success (von Culin et al., 2014; Duckworth, 2016). Widodo and Gunawan (2021) described grit as the tendency to work hard, persevere, and remain resilient in the face of challenges for an extended period, aiming to achieve significant life goals. According to Duckworth and Quinn (2022), grit comprised two indicators, consistency of interest and persistence of effort, which are crucial for reaching high-level objectives.

Despite the increasing popularity of grit, specific research on the relationship between grit and PWB remained scarce. Publications such as Suendarti et al. (2020), Widodo and Chandrawaty (2021), and Hermita et al. (2023) suggested that grit impacted innovative behavior. Other works showed significant connections between grit, voice behavior (Nisar et al., 2020), and innovation (Guarascio & Tamagni, 2019, Arenas et al., 2020, Corradini & D'Ippolito, 2022, Holl et al., 2023). These publications collectively showed that grit influences innovation as an indicator of PWB, where consistency of interests and persistence of effort stimulated increased innovation as a proxy for PWB. Therefore, the first hypothesis (H₁) suggested that Grit directly affects employees' PWB.

2.2. Creativity and Proactive Work Behavior (PWB)

Recognizing creativity as a fundamental component of competitiveness at all levels—individual, team/group, organizational (firm), and global—resulted in increased popularity of innovation (Widodo & Gunawan, 2021). Empirical evidence showed the impact of employees' creativity on business development, profitability, and organizational performance (Chen et al., 2021; Zhang et al., 2023). This was evident through higher levels of employees' creativity enhancing performance and production (Ichdan et al., 2023, Arokiasamy et al., 2022), comprising contextual, tasks (Kaveski & Beuren, 2020, Suryanto et al., 2021, Kurniawanti et al., 2023), and creative performances (Toyama et al., 2023). Additionally, in the educational context, creativity of teachers significantly influenced pupils (Machali et al., 2021), signifying the crucial role of innovation for individual and organizational success.

Ilma and Desiana (2023) described creativity as valuable and unique ideas, while Lee et al. (2020) defined it as the ability to generate original and worthwhile concepts. Miao and Cao (2019) stated how originality led to innovative concepts, items, or methods, including the use of creative techniques and technology. According to Corazza and Lubart (2021), it included the real-world application of information to generate novel findings. Widodo and Gunawan (2021) reiterated that in education, innovation referred to the resources, strategies, tactics, approaches, and styles used in the teaching and learning process. Various scholars stated that creativity produced something new, either in the form of concepts, ideas, services, or goods, intending to find effective solutions (Ichdan et al., 2023). Individuals who tapped into creative potential were more inclined to address tasks and assignments with innovative

thinking and problem-solving skills (Kurniawanti et al., 2023). The ability to generate new and useful ideas empowered individuals to devise original strategies and solutions, eventually improving task performance.

Various types of creativity, including pattern recognition, associations, incremental, radical, and divergent as well as convergent thinking were identified (Bessant & Tidd, 2018). Huang et al. (2020) distinguished its multifaceted concept, comprising cognitive, emotional, and psychomotor elements. However, scholars proposed five indicators for measuring creativity, namely fluency, flexibility, originality, elaboration, and redefinition (Guilford, 1950; Widodo & Gunawan, 2021), which were used in this study as a theoretical synthesis. Despite the multifaceted nature of creativity, there was a lack of specific research in the literature that investigated the relationship between creativity and PWB. Conversely, numerous similar or adjacent publications were relatively available. For instance, creativity was found to influence behavior (Asbari et al., 2021, Hussain & Wahab, 2021, Kim, 2020, Widodo & Gustari, 2020, Gunawan & Widodo, 2021). Additional studies showed a significant relationship between creativity and innovation, serving as an indicator of PWB (Juliana et al., 2021, Neto et al., 2019, Tsegaye et al., 2019). This suggested that creativity impacted PWB, forming the basis for the second hypothesis (H₂).

2.3. Interpersonal Skills and Proactive Work Behavior (PWB)

Interpersonal skills gained increasing attention among practitioners due to the empirical evidence showing the impact on employees and organizations. Recent studies showed that interpersonal skills influenced performance (Rahim et al., 2020, Suci et al., 2022), including contextual performance (Gustari & Widodo, 2023), as well as work readiness, motivation (Priksat et al., 2020, Indrawati et al. 2023), and the potential to reduce workplace violence (Campos Cornejo et al., 2023). Additionally, Van Rensburg and Goede (2020) asserted that effective interpersonal skills foster professional relationships, conflict resolution, and a healthy work environment, facilitating collaboration with co-workers, managers, and clients. This importance extends to both peer-to-peer connections and the supervisor-subordinate dynamic (Beenen et al., 2021), crucial for achieving optimal job readiness through comprehensive training in skills, attitudes, and knowledge necessary for workplace success (Indrawati et al., 2023).

Traditionally defined as the ability to communicate verbally and nonverbally as well as forming social relationships (Febrianita & Hardjati, 2019), interpersonal skills comprised soft skills showed in communication, teamwork, and problem-solving (Chamorro-Premuzic et al., 2010). According to Mariepazh (2012), an individual's ability to form empathetic and fruitful connections was determined by interpersonal abilities. The taxonomy of interpersonal skills included effective listening, presenting, discussing and defending views, transferring as well as receiving knowledge, negotiating with individuals from diverse backgrounds, understanding group dynamics, collaborating with colleagues, and showcasing empathy and motivation (Candy et al., 1994; Birkett, 1993). This study synthesized theoretical indicators from Candy et al. (1994) and Birkett (1993) for measuring interpersonal skills.

Although interpersonal skills gained increased popularity, there was a significant scarcity of specific studies exploring the relationship with other variables, including Positive Work Behavior. The investigation into the causal connection between interpersonal skills and PWB posed challenges, with only a limited number of similar studies available. Gençer's (2019) study proved the significant influence of interpersonal skill-group dynamics on PWB. Another study showed that interpersonal abilities within team dynamics positively impacted innovativeness, a crucial parameter for PMB (Hasan et al., 2020). Fischer et al. (2019) found that intrinsic motivation, functioning as a proxy for interpersonal skills, significantly correlated with PWB and influenced innovative performance. These empirical discoveries reiterated the pressing importance of conducting further studies on the relationship between interpersonal skills and PWB. Based on the findings, a third hypothesis was

proposed.

H₃: Interpersonal skills directly influenced employees' PWB.

2.4. Grit and Creativity

Empirically, grit not only showed a connection to PWB but also exerted influence on creativity. Scholars convincingly showed that grit influenced creativity (Grohman et al., 2017, Rojas & Tyler, 2018, Widodo & Gunawan, 2021, Seo & Lee, 2023), underscoring grit as an essential antecedent to creativity. Consequently, improving employees' grit would lead to an increase in innovation. For instance, individuals with a strong drive to achieve long-term objectives and the perseverance to overcome challenges typically engaged in extensive task elaboration and redefinition. Based on these findings, the fourth hypothesis was formulated.

H₄: Grit directly impacted employees' creativity.

2.5. Grit and Interpersonal Skills

Grit also showed indications of a positive relationship with interpersonal skills. Yang et al. (2022) proved that grit influenced interpersonal stress, specifically how well employees could manage stress. This suggested that grit played a role as a determinant of interpersonal skills, showing an enhancement could have implications for interpersonal skills. Employees showing commitment over extended periods were prone to knowledge-sharing, driven and empathetic, collaborating effectively to achieve objectives. Additionally, individuals persistently working toward long-term objectives were not only open to different perspectives but also enthusiastic about sharing, debating, and defending opinions. The employees further showed proficiency in knowledge transfer, understanding group dynamics, and cooperative work, leading to the formulation of the fifth hypothesis.

H₅: Grit directly influenced employees' interpersonal skills.

2.6. The Mediation Role of Creativity and Interpersonal Skills

Several previous findings showed that grit influenced creativity (Widodo & Gunawan, 2021, Seo & Lee, 2023) and interpersonal skills (Yang et al., 2022). Conversely, creativity and interpersonal skills were shown to influence PWB (Asbary et al., 2021, Gunawan & Widodo, 2021, Juliana et al., 2021, Gençer, 2019, Hasan et al., 2020). This empirical evidence showed the mediating role of creativity and interpersonal skills in the causal relationship between grit and employees' PWB. However, there was a need for a study specifically investigating the influence of grit on PWB with the mediation of creativity and interpersonal skills. The mediation relationship was elucidated by the dynamics of sustained high grit levels in employees over an extended period, stimulating creativity and interpersonal skills, consequently impacting PWB. For instance, employees committed to long-term objectives exemplified task elaboration willingly shared knowledge, and collaborated for innovation, expediting company problem-solving and enhancing competitiveness. Given this logical framework, it became essential to investigate the mediating role of creativity and interpersonal skills in the influence of grit on employees' PWB. These findings justified the formulation of the subsequent hypotheses.

H₆: Grit indirectly affected employees' PWB mediated by creativity.

H₇: Grit indirectly influenced employees' PWB mediated by interpersonal skills.

3. Research Methods

3.1. Research Participants

The study sample, comprising five hundred employees in private Indonesian organizations, excluded superiors or co-workers at the same level from assessments due to the supervisor's tendency to be reluctant and face difficulties in objectively evaluating subordinates. This exclusion aimed to avoid non-objective assessments that could potentially disrupt the findings. The sampled employees were obtained from various sectors, including consumer goods, finance, commerce, services, and investment.

The selected sample primarily operated in Java Island's six provinces, serving as major business and industrial hubs in Indonesia, namely Jakarta, West Java, Banten, Central Java, Yogyakarta, and East Java. The demographic composition of the sample showed that the majority were female (54.6%), aged between 20 and 25 (54%), with high school or equivalent education (48.2%), single (63%), possessing less than five years of job experience (61%), holding staff positions (69.6%), and having a permanent employment status (50.2%).

3.2. Procedure and Materials

The study used a survey method with a quantitative approach, adopting a Likert scale questionnaire with five options—strongly disagree/never (score = 1), disagree/rarely (score = 5)—to obtain data. The questionnaire included an introduction ensuring respondent data confidentiality and agreement to use the data for articles published in international journals. An online survey was conducted using Google Forms, shareable via WhatsApp and email. The theoretical dimensions created by experts formed the basis for grit, creativity, interpersonal skills, and PWB indicators in the questionnaire. Grit indicators included Consistency of Interest (CI) and Persistence of Efforts (PE) (Duckworth & Quinn, 2009). Creativity indicators comprised Fluency (Flue), Flexibility (Flex), Originality (Orig), Elaboration (Elab), and Redefinition (Rede) (Guilford, 1950, Widodo & Gunawan, 2021). Interpersonal skills included Listening Effectively (LE), Presenting, Discussing, and Defending Views (PDDV), Transferring and Receiving Knowledge (TRK), Negotiating with individuals from diverse backgrounds (NPD), Understanding Group Dynamics and Collaborate with Colleagues (UGDC), Communicating in Written and Oral Format (CWOFF), and being Empathetic and Motivated (EM) (Candy et al., 1994, Birkett, 1993). PWB indicators covered Taking Charge (TC), Voice (Voi), Problem Prevention (PP), and Individual Innovation (II) (Parker & Collins, 2010). Grit comprised eight items with an alpha coefficient (AC) of 0.884 and an adjusted item-total correlation coefficient (I-TCC) ranging from 0.390 to 0.825. Creativity section had ten items with an AC of 0.876 and an adjusted I-TCC from 0.425 to 0.781. For interpersonal skills, the fourteen items had an AC of 0.936 and a corrected I-TCC ranging from 0.462 to 0.845. The twelve items constituting PWB had an AC of 0.932 and a corrected I-TCC from 0.506 to 0.864. The study instrument was considered valid and reliable, as all variables had AC > 0.70, and all items had adjusted I-TCC > 0.361 (Widodo, 2021).

Concerns about General Method Bias (CMB) as a source of measurement error were raised by many experts in cross-sectional survey studies using self-report questionnaires (Widodo et al., 2022). Common Method Variance (CMV) introduced a disparity between reported association and the true correlation between variables, measured by CMB, potentially inflating the apparent correlation (Spector et al., 2019). Consequently, CMV posed a risk to the validity and consistency of the findings. Fuller et al. (2016) recommended adopting statistical and procedural changes to minimize and control CMV. The investigation used the correlation matrix technique and Harman's single-factor test as statistical mechanisms. According to Tehseen et al. (2017) and Kock (2020), the results of Harman's single-factor test showed a correlation coefficient among constructs (variables) lower than 0.90 and total variance extracted by a factor of 49.12%, falling below the recommended threshold of 50%. These findings strongly suggested the absence of CMV or CMB in the study's data.

3.3. Data Analysis

Correlational and descriptive statistics were used to facilitate the data analysis for structural equation modeling (SEM). The direct significance of the path coefficient association was assessed using a student's t-test, while the indirect connection was evaluated through the Sobel (Z) Test (Abu-Bader & Jones, 2021). CMB, descriptive, and correlational analyses were conducted using SPSS version 22, and the SEM technique was carried out using LISREL version 8.80.

4. Results

4.1. Descriptive and Correlation Analysis

The SPSS-based analyses indicated that standard deviation values (0.61 to 3.00) were smaller than the mean values (4.16 to 15.88). This discrepancy provided a concise summary of the data, prompting further investigation. Furthermore, the correlation study showed significant findings, with coefficient values ranging from 0.25 to 0.79 for all constructs (variables) together at $p < 0.01$. This showed mutual dependence between each indicator and every other. However, as the correlation coefficient did not exceed 0.8, there were no indications of multicollinearity symptoms in the relationship.

4.2. Confirmatory Factor Analysis

In SEM analysis, confirmatory factor analysis (CFA) was used to assess the representation of indicators for variables (constructs) (Hair et al., 2018). The measurement model estimate derived from CFA, presented in Table 1, showed validity through factor loading values of all indicators equal to or greater than 0.5. Simultaneously, credibility was assessed using construct reliability (CR), variance extracted (VE), and alpha (α) values. According to Hair et al. (2018), all variables showed strong reliability and satisfactory convergence, with CR, α , and VE values surpassing 0.70 and 0.50, respectively.

Table 1: Results of The Measurement Model

Constructs	Indicators	Factor Loading	CR	VE	α
Grit (X)	CI	.81	.766	.501	.884
	PE	.92			
Creativity (Y ₁)	Flue	.71	.867	.569	.876
	Flex	.74			
	Orig	.82			
	Elab	.85			
	Rede	.63			
Interpersonal Skills (Y ₂)	LE	.63	.893	.546	.936
	PDDV	.80			
	TRK	.81			
	NPD	.75			
	UGDC	.77			
	CWOF	.75			
	EM	.64			
PWB (Y ₃)	TC	.81	.918	.737	.932
	Voi	.84			
	PP	.89			
	II	.89			

4.3. Goodness of Fit

The goodness of fit (GOF) test evaluated the correlation of the theoretical model with empirical data, with a high level of suitability showing a good fit. The results showed that eight of the eleven criteria indicated a moderate fit, while the remaining two exhibited poor GOF. The fulfilled criteria were GFI, NFI, NNFI, AGFI, CFI, RFI, Normed Chi-Square, and PNFI. RMSEA was the criterion with a moderate fit, while Sig. Probability and Chi-Square did not meet the requirements. Despite the challenges of large samples, as stated by Hair et al. (2018), such as the 500 individuals, the GOF test results remained valid (fit) as nine of the eleven samples met the criterion.

4.4. Hypothesis Testing

The results from the hypothesis tests were presented visually in Figures 1 and 2, then summarized in Table 2. All hypotheses (H_1 to H_7) were significantly supported, showing significance at t/Z values exceeding the critical t/Z table values for $\alpha = 0.05$ and 0.01 . Specifically, grit, creativity, and interpersonal skills were found to positively affect PWB, with path coefficients (γ/β) and p -values as follows, ($\gamma = 0.12$, $p < 0.05$), ($\beta = 0.25$, $p < 0.01$), and ($\beta = 0.47$, $p < 0.01$). Additionally, grit showed positive effects on both creativity ($\gamma = 0.61$, $p < 0.01$) and interpersonal skills ($\gamma = 0.65$, $p < 0.01$). The smallest path coefficient observed was the impact of grit on PWB ($\gamma = 0.12$, $p < 0.05$), showing a relatively small but significant influence. The most substantial path coefficient was the influence of grit on interpersonal skills ($\gamma = 0.65$, $p < 0.01$), signifying a considerable and significant impact. Interpersonal skills also showed a greater impact on PWB compared to both grit and creativity. Furthermore, the influence of grit on interpersonal skills and creativity surpassed its effect on PWB. The indirect (mediation) relationship between grit and PWB, mediated by creativity and interpersonal skills, was found to be supported and significant. Grit showed a positive indirect effect on PWB mediated by creativity ($\beta = 0.16$, $p < 0.01$), while it positively impacts PWB indirectly through interpersonal skills ($\beta = 0.31$, $p < 0.01$). Interpersonal skills showed a more substantial mediating influence on PWB compared to creativity, correlating with the greater direct impact of grit on interpersonal skills ($\gamma = 0.65$) compared to creativity ($\gamma = 0.61$).

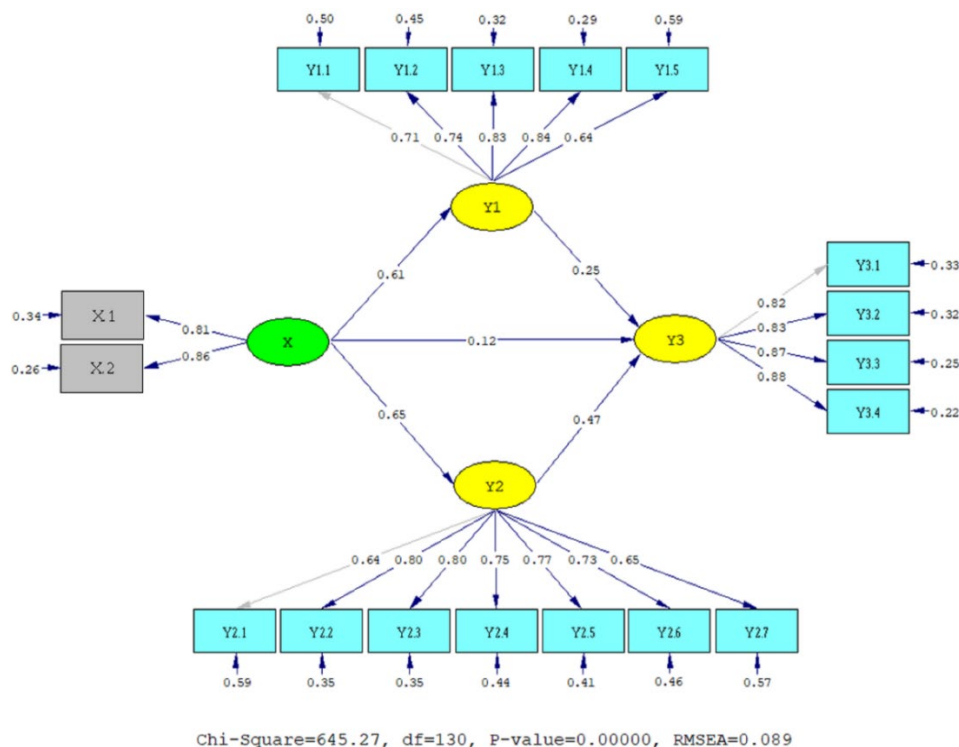


Fig.1: Standardized structural model.

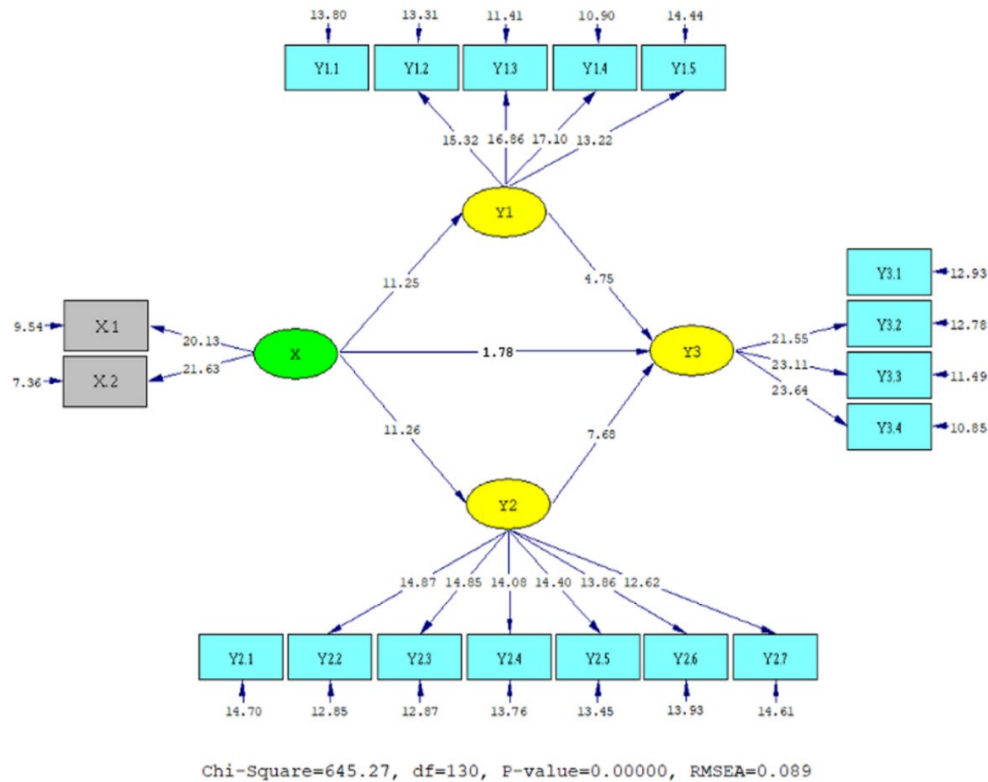


Fig.2: T-value Structural Model

Table 2: Hypothesis Testing Results

Hypothesis	γ/β	T/Z-value	Decision
H ₁ : Grit (X) and PWB (Y ₃)	0.12*	1.78	Supported
H ₂ : Creativity (Y ₁) and PWB (Y ₃)	0.25**	4.75	Supported
H ₃ : Interpersonal skills (Y ₂) and PWB (Y ₃)	0.47**	7.68	Supported
H ₄ : Grit (X) and creativity (Y ₁)	0.61**	11.25	Supported
H ₅ : Grit (X) and interpersonal skills (Y ₂)	0.65**	11.26	Supported
H ₆ : Grit (X) on PWB (Y ₃) mediated by creativity (Y ₁)	0.16**	9.17	Supported
H ₇ : Grit (X) on PWB (Y ₃) mediated by interpersonal skills (Y ₂)	0.31**	10.77	Supported

* $p < .05$, ** $p < .01$

5. Discussion

The study shows that grit, creativity, and interpersonal skills influence employees' PWB, with grit positively impacting both creativity and interpersonal skills. Additionally, grit's influence on employees' PWB is mediated by creativity and interpersonal skills. The initial discovery shows the positive and significant impact of grit on employees' PWB, underscoring it as a crucial antecedent for PWB. This positive impact suggests that improvements in grit are inclined to lead to increased levels of PWB. For instance, enhanced commitment to long-term objectives prompts employees to take charge by initiating voluntary actions focused on development, engaging in transformative activities, or innovating to expedite complex tasks. This discovery correlates with and supports previous research proving the influences of grit on PWB (e.g., Widodo & Chandrawaty, 2021, Hermita et al., 2023, Nisar et al., 2020, Corradini & D'Ippolito, 2022, Holl et al., 2023). Contrary to Bas et al.'s (2015) suggestion, the impact of grit on PWB remains indisputable.

The subsequent finding underscores the positive and significant effect of creativity on employees' PWB, showing creativity as an important determinant for PWB. This positive effect implies that

improvements in creativity can foster increased PWB. For instance, enhancing employees' flexibility, originality, elaboration, and redefinition at work can inspire the staff to innovate various company problems, eventually contributing to the company's competitiveness. These findings correlate and affirm the outcomes of previous studies showing that creativity significantly influences PWB (Asbari et al., 2021, Hussain & Wahab, 2021, Kim, 2020, Widodo & Gustari, 2020, Gunawan & Widodo, 2021, Juliana et al., 2021).

The study further underscores the significant influence of interpersonal skills on employees' PWB, establishing interpersonal skills as an important predictor of PWB. Similar to grit and creativity, this influence is positive, showing that improving interpersonal skills can potentially elevate employees' PWB. For instance, employees' well-versed in group dynamics and collaboration tend to offer creative solutions, articulate concepts or ideas to enhance working conditions, and engage in problem prevention to avert personal or professional issues. Similarly, employees with high levels of empathy and motivation are inclined to take charge by initiating voluntary actions focused on development and transformation, offering creative solutions, and expressing concepts or ideas to enhance the work environment. These findings correlate and affirm previous studies, such as Gençer (2019), Hasan et al. (2020), and Fischer et al. (2019), asserting the influential role of interpersonal skills on PWB.

There also exists a positive influence of grit on creativity and interpersonal skills, underscoring grit's potency as an exogenous variable that not only shapes PWB but also positively impacts creativity and interpersonal skills. This suggests that grit serves as a crucial predisposition for creativity and developing strong interpersonal skills. Employees with a steadfast commitment to long-term objectives often engage in extensive task elaboration and redefinition. Those committed to a project over an extended duration are more inclined to share and acquire knowledge, show drive and empathy, and collaborate effectively to achieve common objectives. The findings corroborate previous studies showing that grit influences creativity (Widodo & Gunawan, 2021, Seo & Lee, 2023) and interpersonal skills (Yang et al., 2022). The findings simultaneously contradict Gonlepa et al.'s (2023) claim that creativity influences grit, affirming the unequivocal impact of grit on creativity.

The study explores the crucial role of creativity and interpersonal skills as mediators in the impact of grit on employees' PWB. The findings correlate with previous research and affirm a significant empirical model outlining how grit influences PWB through the mediation of creativity and interpersonal skills. It strongly supports the mediating role of creativity and interpersonal skills in the relationship between grit and PWB. However, interpersonal skills evolve as having a more substantial mediating influence on PWB than creativity, correlating with the direct impact of grit on interpersonal skills, surpassing creativity. This implies that fostering interpersonal skills should receive greater focus than creativity in mediating the impact of grit on PWB. The findings contribute theoretically to the advancement of PWB studies within the framework of HRM, organizational behavior, and industrial/organizational psychology. Additionally, the findings also offer practical implications for companies aiming to enhance employees' PWB by leveraging the potential of grit, creativity, and interpersonal skills. Encouraging employees to participate in training or workshops focusing on these aspects, internally organized or external, can strategically benefit the company. Providing comprehensive and current information or references related to grit, creativity, and interpersonal skills can further enhance employees' proficiency in these areas. Therefore, a thorough and detailed discussion of the study findings is essential for practitioners and academics to derive meaningful insights and benefits.

6. Conclusion

In conclusion, this study presented substantial empirical evidence, indicating that persistent employees with grit not only showed PWB but also manifested enhanced creativity and interpersonal skills, forming a continuous cycle of proactivity. Instead of exclusively focusing on cultivating grit, managers achieved greater benefits by actively incorporating creativity training and team-building activities into talent development initiatives. Despite the need for cautious extrapolation due to the limited sample,

the documented mediated pathways held both theoretical significance and practical promise. Future research across diverse sectors, integrating additional sources and relevant variables, advanced the comprehension of the positive effects among the essential individual strengths, serving as intelligent motivators for organizational flourishing. Furthermore, company leaders considered implementing extensive training programs in grit, creativity, and interpersonal skills, guided by instructors, as a strategy for fostering employees' PWB. This proactive strategy was crucial for maintaining success and preparing for the challenges, competition, and uncertainties in an increasingly unpredictable future.

References

- Abu-Bader, S., & Jones, T. V. (2021). Statistical mediation analysis using the Sobel Test and Hayes SPSS process macro. *International Journal of Quantitative and Qualitative Research Methods*, 9(1), 42-61.
- Akbari, M., Bagheri, A., Imani, S., & Asadnezhad, M. (2019). Does entrepreneurial leadership encourage innovative work behavior? The mediating role of creativity self-efficacy and support for innovation. *European Journal of Innovation Management*, 1-23. <http://dx.doi.org/10.1108/EJIM-10-2019-0283>.
- Alhadabi, A., & Karpinski, A. C. (2020). Grit, self-efficacy, achievement orientation goals, and academic performance in University students. *International Journal of Adolescence and Youth*, 25(1), 519-535, <https://doi.org/10.1080/02673843.2019.1679202>
- Arenas, J.J., Gomez, J.E., Ortiz, E., Paz, F., & Parra, C. (2020). Elements of the persistence in innovation: Systematic literature review. *Administrative Sciences (MDPI)*, 10(83), 1-14. <http://dx.doi.org/10.3390/admsci10040083>.
- Arokiasamy, A. R. A., Maheshwari, G., & Nguyen, L. (2022). The influence of ethical and transformational leadership on employee creativity in Malaysia's private higher education institutions: The mediating role of organizational citizenship behavior. *Interdisciplinary Journal of Information, Knowledge, and Management*, 16, 1-33. <https://doi.org/10.28945/4896>.
- Asbari, M., Prasetya, A. B., Santoso, P. B., & Purwanto, A. (2021). From creativity to innovation: The role of female employees' psychological capital. *International Journal of Social and Management Studies (IJOSMAS)*, 02(02), 66-77.
- Bark, A. S. H., Seliverstova, K., & Ohly, S. (2022). Getting credit for proactivity? The effects of gender. *Journal of Applied Social Psychology*, 52(8), 660-675. <https://doi.org/10.1111/jasp.12833>
- Bas, C.L., Mothe, M., & Nguyen-Thi, T. U. (2015). The differentiated impacts of organizational innovation practices on technological innovation persistence. *European Journal of Innovation Management*, 18, 110-127. <http://dx.doi.org/10.1108/EJIM-09-2012-0085>
- Beenen, G., Pichler, S., Livingston, B., and Riggio, R. (2021). The good manager: development and validation of the managerial interpersonal skills scale. *Frontiers in Psychology*, 12, 631390. doi: 10.3389/fpsyg.2021.631390
- Bessant, J. R., & Tidd, J. (2018). *Innovation and entrepreneurship*. Chichester: Wiley.
- Birkett, W.P. (1993). Competency-based standards for professional accountants in Australia and New Zealand, ASCPA/ICAA/NZSA, Canberra.
- Boonyarit, I. (2023). Linking self-leadership to proactive work behavior: A network analysis. *Cogent Business & Management*, 10(1), 2163563. <https://doi.org/10.1080/23311975.2022.2163563>

- Cai, Z., Parker, S. K., Chen, Z., & Lam, W. (2019). How does the social context fuel the proactive fire? A multilevel review and theoretical synthesis. *Journal of Organizational Behavior*, 40, 209–230. <https://doi.org/10.1002/job.2347>
- Campos Cornejo, L. L., Ramírez Montaldo, R. ., García Ampudia, L., Jaimes Campos, M. A., Sánchez-Chero, M., & Villavicencio Guardia, M. del C. (2023). Interpersonal Skills Program Based on Artistic Expressions to Reduce Intimate Partner Violence in University Students. *HUMAN REVIEW: International Humanities Review* 21(1), 179–187. <https://doi.org/10.37467/revhuman.v21.5045>
- Candy, P.C., Crebert, G., & O'Leary, J. (1994). *Developing lifelong learners through undergraduate education, Commissioned Report No. 28, National Board of Employment, Education and Training (NBEET) Cat. No. 9427000*, AGPS, Canberra.
- Chamorro-Premuzic, T., Arteche, A., Bremner, A. J., Greven, C., & Furnham, A. (2010). Soft skills in higher education: Importance and improvement ratings as a function of individual differences and academic performance. *Educational Psychology*, 30(2), 221–241. <https://doi.org/10.1080/01443410903560278>
- Chen, Y., Liu, D., Tang, G., & Hogan, T. M. (2021). Workplace events and employee creativity: A multistudy field investigation. *Personnel Psychology*, 74(2), 211–236. <https://doi.org/10.1111/peps.12399>.
- Cormier, D.L., Ferguson, L.J., Gyurcsik, N.C., Briere, J.L., Mosewich, A.D., Kowalski, K.C. (2023). A quantitative assessment of the predictive utility of grit in sport. *Psychol Sport Exerc.*, 70,102540. <https://doi.org/10.1016/j.psychsport.2023.102540>.
- Corradini, C., & D'Ippolito, B. (2022). Persistence and learning effects in design innovation: evidence from panel data. Persistence and learning effects in design innovation: evidence from panel data. *Research Policy*, 104452. <https://doi.org/10.1016/j.respol.2021.104452>.
- Davis, J. P. (2016). The Group Dynamics of inter-organizational relationships: Collaborating with multiple partners in innovation ecosystems. *Administrative Science Quarterly*, 61(4). <http://dx.doi.org/10.1177/0001839216649350>.
- Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (GRIT–S). *Journal of Personality Assessment*, 91(2), 166–174. <https://doi.org/10.1080/00223890802634290>.
- Duckworth, A. L., Kirby, T. A., Tsukayama, E., Bernstein, H., & Ericsson, K. A. (2011). Deliberate practice spells success: Why grittier competitors triumph at the national spelling bee. *Social Psychological and Personality Science*, 2(2), 174–181. <https://doi.org/10.1177/1948550610385872>.
- Duckworth, A.L. (2016). *Grit: The power of passion and perseverance*. New York: Scribner.
- Farroukh, N., Canaan Messarra, L., & Yunis, M. (2023). The perception of job insecurity and organizational citizenship behavior during COVID-19: the moderating roles of positive psychological capital and grit. *Journal of Asia Business Studies*, 17(6), 1069–1087. <https://doi.org/10.1108/JABS-05-2022-0176>
- Faust, L. E., & Rosendale, J.A. (2023). Using Grit and self-efficacy as Performance predictors for at-risk students in higher education. *Review of Education*, 11(2), e3415. <https://doi.org/10.1002/rev3.3415>
- Fay, D., Strauss, K., Schwake, C., & Urbach, T. (2022). Creating meaning by taking initiative: Proactive work behavior fosters work meaningfulness. *Applied Psychology*, 72(2), 506–534. <https://doi.org/10.1111/apps.12385>
- Febrianita, R., & Hardjati, S. (2019). The power of interpersonal communication skills in enhancing service provision. *Journal of Social Science Research*, 14, 3192–3199. <https://doi.org/10.24297/jssr.v14i0.8150>

- Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers Psychology*, 10,137. <https://doi.org/10.3389/fpsyg.2019.00137>.
- Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of Business Research* 69(8), 3192–3198. <https://doi.org/10.1016/j.jbusres.2015.12.008>.
- Gençer, H. (2019). Group dynamics and behavior. *Universal Journal of Educational Research*, 7(1), 223-229. <http://dx.doi.org/10.13189/ujer.2019.070128>.
- Gonlepa, M. K., Dilawar, S., & Amosun, T. S. (2023). Understanding employee creativity from the perspectives of grit, work engagement, person-organization fit, and feedback. *Frontiers in Psychology*, 13, 1012315. <http://dx.doi.org/10.3389/fpsyg.2022.1012315>.
- Grohman, M. G., Ivcevic, Z., Silvia, P., & Kaufman, S. B. (2017). The role of passion and persistence in creativity. *Psychology of Aesthetics, Creativity, and the Arts*, 1-11. <http://dx.doi.org/10.1037/aca0000121>.
- Guarascio, D., & Tamagni, F. (2019). Persistence of innovation and patterns of firm growth. *Research Policy*, 1-20. <http://dx.doi.org/10.1016/j.respol.2019.03.004>.
- Guilford, J.P. (1950). *Creativity*. New York: American Psychologist.
- Gunawan, R. M. B., & Widodo, W. (2023). How boundary-spanning leadership affects employees' contextual performance: A mediation mechanism perspective. *Quality Access to Success*, 24(196), 285-294. <https://doi.org/10.47750/QAS/24.196.35>
- Gunawan, R.M.B., & Widodo, W. (2021). Analyzing the effect of knowledge management and teaching creativity on innovative work behavior: The organizational empowerment perspective. *Management Science Letters*, 11(2), 129-138. <http://dx.doi.org/10.5267/j.msl.2020.9.005>.
- Gustari, I., & Widodo, W. (2023). Enhancing employees' contextual performance based on interpersonal skills and creativity. *Jurnal Penelitian Pendidikan Indonesia*, 9(3), 1465-1472. <https://doi.org/10.29210/0202313117>
- Gustari, I., & Widodo, W. (2021). The power of grit on lecturer's job satisfaction through affective commitment. *Jurnal Konseling dan Pendidikan*, 9(2), 218-225. <https://doi.org/10.29210/163700>
- Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2018). *Multivariate data analysis* (8th ed.). India: Cengage India.
- Hasan, I., Islam, M.D.N., & Chowdhury, M. A. F. (2020). Do team dynamics influence organizations to be innovative? *Innovative Management and Business Practices in Asia*, 58-76. <http://dx.doi.org/10.4018/978-1-7998-1566-2.ch003>.
- Hermita, M., Rizal, N. P. A., & Hermana, B. (2023). How social support and grit influence entrepreneurs' innovative behavior in micro and small enterprises: The mediating role of creativity. *Jurnal Ekonomi dan Bisnis Digital (MINISTAL)*, 2(1), 91-114. <https://10.55927/ministal.v2i1.2468>.
- Holl, A., Peters, B., & Rammer, C. (2023). Local knowledge spillovers and innovation persistence of firms. *Economics of Innovation and New Technology*, 32(6), 826–850. <https://doi.org/10.1080/10438599.2022.2036609>.
- Hou, X., & Huang, R. (2021). The literature review of proactive behavior at work advances in social science. *Education and Humanities Research*, 522, 129-132. doi:10.2991/assehr.k.210208.030.

- Huang, N. T., Chang, Y. S., & Chou, C. H. (2020). Effects of creative thinking, psychomotor skills, and creative self-efficacy on engineering design creativity. *Thinking Skills and Creativity*, 37, 100695. <https://doi.org/10.1016/j.tsc.2020.100695>
- Hussain, K., & Wahab, E. (2021). Reviewing the link between employee creativity, innovative behavior, and organizational innovation. *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management (IEOM) Singapore*, 6616-6624. <http://dx.doi.org/10.46254/AN11.20211131>
- Ichdan, D.A., Yuliansyah, & Maryani (2023). Do mental models and creativity help employees improve their job performance from their participation in budgeting? *Cogent Business & Management*, 10(1), 2184228. <https://doi.org/10.1080/23311975.2023.2184228>
- Ilma, N., & Desiana, P.M. (2023). The effect of onboarding on job performance through the mediating role of employee creativity. *Proceedings of the 7th Global Conference on Business, Management, and Entrepreneurship (GCBME 2022), Advances in Economics, Business and Management Research*, 1089-1095. https://doi.org/10.2991/978-94-6463-234-7_114.
- Indrawati, C. D. S., Subarno, A., Winarno, W., Permansah, S., Wirawan, A.W., & Rusmana, D. (2023). Influence of work motivation, interpersonal skills, and knowledge construction on the work readiness of vocational students. *Education Research International*, Article ID 4956337. <https://doi.org/10.1155/2023/4956337>
- Juliana, N. O., Hui, H. J., Clement, M., Solomon, E. M., & Elvis, O. K. (2021). The impact of creativity and innovation on entrepreneurship development: Evidence from Nigeria. *Open Journal of Business and Management*, 9, 1743-1770. <https://doi.org/10.4236/ojbm.2021.94095>.
- Junker, T. L., Bakker, A. B., Gorgievski, M. J., & Derks, D. (2022). Agile work practices and employee proactivity: A multilevel study. *Human Relations*, 75(12), 2189–2217. <https://doi.org/10.1177/00187267211030101>
- Kaveski, I.D.S., & Beuren, I.M. (2020). Influence of management control systems and creativity on Job Performance. *Cadernos EBAPE.BR*, 18(3), 544-556. <https://doi.org/10.1590/1679-395120190024x>.
- Kim, T. (2020). The effect of creative potential on innovation behavior: Focusing on design thinking. *Journal of Distribution Science*, 18(8) 65-74. <http://dx.doi.org/10.15722/jds.18.8.202008.65>.
- Kock, N. (2020). Harman's single factor test in PLS-SEM: Checking for common method bias. *Data Analysis Perspectives Journal*, 2(2), 1–6.
- Kurniawanti, I. A., Zain, J., Thoyib, A., & Rahayu, M. (2023). Knowledge hiding and individual task performance: The role of individual creativity as mediator. *Heliyon*, 9, e21035. <https://doi.org/10.1016/j.heliyon.2023.e21035>
- Lee, J. (2022). The role of grit in organizational performance during a pandemic. *Frontiers in Psychology*, 13, 929517. <https://doi.org/10.3389/fpsyg.2022.929517>
- Lee, J. H., Portillo, M., & Meneely, J. (2020). Insights into three frames of creative minds: Igniting perspective transformation among first-year university students. *Journal of Transformative Education*, 18(2), 138–162. <http://dx.doi.org/10.1177/1541344619893314>
- Li, X. (2020). The preliminary literature review of proactive behavior. *American Journal of Industrial and Business Management*, 10, 915-919. <https://doi.org/10.4236/ajibm.2020.105061>
- Machali, I., Wibowo, A., Murfi, A., & Narmaditya, B.S. (2021). From teachers to students' creativity? the mediating role of entrepreneurial education. *Cogent Education*, 8(1), 1943151. <https://doi.org/10.1080/2331186X.2021.1943151>

- Mariepazh, A. (2012). Teaching efficacy, interpersonal, intrapersonal skills, and teaching performance in the tertiary school. *IAMURE: International Journal of Social Science*, 2(1), 17-25. <https://doi.org/10.7718/ijss.v2i1.8>
- Miao, R., & Cao, Y. (2019). High-performance work system, work well-being, and employee creativity: Cross-level moderating role of transformational leadership. *International Journal of Environmental Research and Public Health*, 16, 1-24. <https://doi.org/10.3390/ijerph16091640>.
- Neto, J. C., Filipe, J. A., & Caleiro, A. B. (2019). Creativity and innovation: A contribution of behavioral economics. *International Journal of Innovation Studies*, 3, 12-21. <https://doi.org/10.1016/j.ijis.2019.06.003>.
- Nisar, A., Butt, T. H., Abid, G., Farooqi, S., & Qazi, T. F. (2020). Impact of grit on voice behavior: Mediating role of organizational commitment. *Future Business Journal*, 6(1), 23. <https://doi.org/10.1186/s43093-020-00028-7>.
- Nurjaman, K., Marta, M. S., Eliyana, A., Kurniasari, D., & Kurniasari, D. (2019). Proactive work behavior and innovative work behavior: The moderating effect of job characteristics. *Humanities and Social Sciences Reviews*, 7(6), 373–379. <https://doi.org/10.18510/hssr.2019.7663>
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, 36, 633–662. <https://doi.org/10.1177/0149206308321554>
- Pratama, A.S., Sridadi, A.R., Eliyana, A., Anggraini, R.D., & Kamil, N.L.M. (2023). A systematic review of proactive work behavior: future research recommendation. *The Journal of Behavioral Science*, 18(2), 136-151
- Prikshat, V., Montague, A., Connell, J., & Burgess, J. (2020). Australian graduates' work readiness—deficiencies, causes, and potential solutions. *Higher Education, Skills and Work-Based Learning*, 10(2), 369–386. <https://doi.org/10.1108/HESWBL-02-2019-0025>
- Rahim, A. R., Rasulong, I., & Wahjono, S. I. (2020). Interpersonal skills and the impact of managerial performance through organizational commitments. *Global Academic Journal of Economics and Business*, 2(4), 59-67.
- Rojas, J. P., & Tyler, K. M. (2018). Measuring the creative process: A psychometric examination of creative ideation and grit. *Creativity Research Journal*, 30(1), 29–40. <https://doi.org/10.1080/10400419.2018.1411546>.
- Seo, E. H., & Lee, H.S. (2023). The Moderating Effect of Grit on the Relationship Between Critical Thinking and Creativity. *The New Educational Review*, 71, 129-139. <http://dx.doi.org/10.15804/tner.2023.71.1.10>.
- Smithikrai, C., & Suwannadet, J. (2018). Authentic leadership and proactive work behavior: Moderated mediation effects of conscientiousness and organizational commitment. *Journal of Behavioral Science*, 13(2), 94–106.
- Spector, P. E., Rosen, C.C., Richardson, H.A., William, L. J., & Johnson, R. E. (2019). A new perspective on method variance: A measure-centric approach. *Journal of Management*, 45(3), 855-880. <https://doi.org/10.1177/0149206316687295>.
- Suci, K., Tuerah, R.M.S., & Sumual, S. D. M. (2022). The influence of aspects of interpersonal skills, compensation, and teacher performance at Madrasah Aliyah Manado. *International Journal on Integrated Education*, 5(6), 61-71.
- Suendarti, M., Widodo, W. & Hasbullah, H. (2020). Demonstrating the effect of grit and creativity on innovative behavior of teacher's natural science: Mediating by self-efficacy. *Journal of Xi'an University of Architecture & Technology*, 12(6), 470-478.

- Suryanto, H., Degeng, I. N. S., Djatmika, E. T., & Kuswandi, D. (2021). The effect of creative problem solving with the intervention of social skills on the performance of creative tasks. *Creativity Studies*, 14, 323-335. <https://doi.org/10.3846/cs.2021.12364>.
- Tehseen, S., Ramayah, T., & Sajilan, S. (2017). Testing and controlling for common method variance: A review of available method. *Journal of Management Sciences* 4(2), 146–175. <https://doi.org/10.20547/jms.2014.1704202>.
- Toyama, M., Nagamine, M., Asayama, A., Tang, L., Miwa, S., & Kainuma, R. (2023). Can persistence improve creativity? The effects of implicit beliefs about creativity on creative performance. *Psychology of Aesthetics, Creativity, and the Arts*. Advanced online publication. <https://doi.org/10.1037/aca0000587>
- Tsegaye, W. K., Su, Q., & Malik, M. (2019). The quest for a comprehensive model of employee innovative behavior: The creativity and innovation theory perspective. *The Journal of Developing Areas*, 54(2), 163-178. <https://doi.org/10.1353/jda.2020.0022>.
- Van Rensburg, J. T.J., & Goede, R. (2020). Promoting career awareness among IT students in a South African context. *Higher Education, Skills and Work-Based Learning*, 10(3), 541–565. <http://dx.doi.org/10.1108/HESWBL-09-2019-0110>
- Vinson, J.M., McMillan, J. M., & Schleifer, L.F. (2023). An investigation of the association of grit with performance in accounting courses. *Journal of Accounting Education*, 59, 100779. <https://doi.org/10.1016/j.jaccedu.2022.100779>
- Von Culin, K., Tsukayama, E., & Duckworth, A. L. (2014). Unpacking grit: Motivational correlates of perseverance and passion for long-term goals. *The Journal of Positive Psychology*, 9(4), 306–312. <http://dx.doi.org/10.1080/17439760.2014.898320>
- Wetzler, E.L., Farina, A. G., Powers, J., & Matthews, M.D. (2023). Grit and uncertainty: Grit predicts performance and West Point graduation during pandemic conditions. *Military Psychology*. <https://doi.org/10.1080/08995605.2023.2222631>
- Widodo, W., & Chandrawaty, C. (2021). Developing lecturers' innovative work behavior based on grit and OCB. *East African Scholars Journal of Education, Humanities and Literature*, 4(8), 319-326. <http://dx.doi.org/10.36349/easjehl.2021.v04i08.003>
- Widodo, W. (2021). Enhancing teachers' professional competence through grit, personality, and creativity. *Management Science Letters*, 11(1), 129-138. <https://doi.org/10.5267/j.msl.2020.8.022>
- Widodo, W. (2021). *Metodologi Penelitian Populer & Praktis*. [Popular & practical research methodologies]. Depok: Rajawali Pers.
- Widodo, W., & Gunawan, R.M.B. (2021). Effect of grit on the teaching creativity of Indonesian teachers: The mediating role of organizational commitment and knowledge management. *Cogent Education*, 8(1), 2006111. <https://doi.org/10.1080/2331186X.2021.2006111>.
- Widodo, W., Gustari, I., & Chandrawaty, C. (2022). Adversity quotient promotes teachers' professional competence more strongly than emotional intelligence: Evidence from Indonesia. *Journal of Intelligence*, 10(3), 44. <https://doi.org/10.3390/jintelligence10030044>
- Yang, Q., Shi, M., Tang, D., Zhu, H., & Xiong, K. (2022). Multiple roles of grit in the relationship between interpersonal stress and psychological security of college freshmen. *Frontiers Psychology*, 13, 824214. <http://dx.doi.org/10.3389/fpsyg.2022.824214>.
- Ying, Z., Jinyun, D., Fuxi, W., Jinzhao, Q., & Xiongliang, P. (2022). “Attraction of the like”: How does coworkers' proactive behavior stimulate employees' motivation and job performance? *Acta Psychologica Sinica*, 54(4), 516–528. <https://doi.org/10.3724/SP.J.1041.2022.00516>

Zhang, L., Kim, D., & Ding, S. (2023). Cultivating organizational performance through the performance measurement systems: Role of psychological empowerment and creativity. *Frontiers in Psychology*, 14, 1116617. <https://doi.org/10.3389/fpsyg.2023.1116617>

Zheng, F., Khan, N. A., & Hussain, S. (2020). The COVID-19 pandemic and digital higher education: Exploring the impact of proactive personality on social capital through internet self-efficacy and online interaction quality. *Children and Youth Services Review*, 19, 1–12. <https://doi.org/10.1016/j.childyouth.2020.105694>