

THE EFFECT OF LEARNING AGILITY AND DIGITAL LITERACY ON PERSONAL CREATIVITY, WITH WORK MOTIVATION AS A MEDIATING VARIABLE, AMONG FREELANCE DESIGNERS IN MALANG CITY

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Abstract

This study aims to analyze the influence of learning agility and digital literacy on personal creativity, with work motivation as a mediating variable, among freelance designers in Malang City. This research employed a quantitative approach using a survey method. Data were collected from 290 freelance designers in Malang City through purposive sampling, based on specific criteria relevant to freelance design work. The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS 4. The results show that learning agility has a positive and significant effect on personal creativity and work motivation. Work motivation also has a positive and significant effect on personal creativity and mediates the relationship between learning agility and personal creativity. The model demonstrates strong explanatory power, with an R-square value of 0.844 for personal creativity and 0.796 for work motivation, indicating that the proposed variables strongly explain the research model. However, digital literacy does not have a significant effect on either personal creativity or work motivation, and work motivation does not mediate the relationship between digital literacy and personal creativity. These findings imply that freelance designers and creative industry stakeholders should prioritize the development of adaptive learning abilities and work motivation to enhance personal creativity in the digital creative economy. Overall, this study confirms that learning agility and work motivation are critical factors in strengthening the personal creativity of freelance designers in Malang City.

Keywords: Learning Agility, Digital Literacy, Work Motivation, Personal Creativity

INTRODUCTION

The rapid development of the digital creative economy has transformed the way creative professionals generate, evaluate, and deliver creative ideas. In this context, creativity is no longer viewed merely as a form of individual artistic expression, but as a strategic capability that determines work quality, career sustainability, and competitiveness in a dynamic work environment (Runco, 2006). Creativity refers to the ability to produce ideas that are both novel and useful, making it a central element in creative professions such as freelance design (Runco & Jaeger, 2012). For freelance designers, personal creativity is particularly important because their work relies on the ability to create original, relevant, and visually meaningful design solutions according to client needs and market trends. Unlike workers in formal organizations, freelance designers operate in a flexible, project-based, and independent work system, which requires them to manage their own learning process, client relationships, digital tools, deadlines, and creative output.

The urgency of studying personal creativity among freelance designers is strengthened by the growing pressures faced by creative professionals in the digital era. The Adobe State of Creativity Report 2024 shows that creative workers experience increasing workloads, high deadline pressure, difficulty maintaining originality, and strong dependence on digital platforms in the creative process (Adobe Inc, 2024). These conditions indicate that creative professionals are required to produce work quickly while still maintaining the originality and usefulness of their ideas. In the local context, Malang City provides a relevant setting for this issue because it has a growing creative economy ecosystem and has been recognized as part of the UNESCO Creative Cities Network in the Media Arts category (UNESCO, 2024). This recognition reflects the importance of creative and digital-based activities in Malang, making freelance designers in the city an important group to study. They do not only face local competition but also participate in a wider digital creative market through platforms such as Instagram, Behance, Fiverr, Upwork, and LinkedIn.

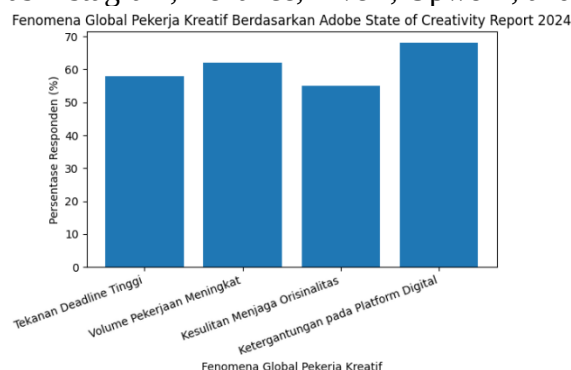


Figure 1
Adobe's Report on the State of Creativity

Previous studies have discussed creativity, digital literacy, learning agility, and work motivation in various contexts. Creativity has been explained as a multidimensional process involving expertise, creative thinking skills, and intrinsic motivation (Amabile, 1996). Runco (2014, 2018) further emphasizes that creativity is shaped by cognitive processes, motivation, personal reflection, and environmental interaction. In relation to digital competence, digital literacy has been found to support creative thinking because it enables individuals to access, evaluate, and use digital information effectively (Kesici, 2022; Livingstone, 2004).

Meanwhile, learning agility is considered important because it reflects an individual's ability to learn from experience and apply that learning to new and complex situations (Lombardo & Eichinger, 2000). Several recent studies have also shown that learning agility contributes to creativity and innovative work behavior (Alhulail & Singh, 2023; Hamdani et al., 2023). However, these findings are still largely derived from educational institutions, formal organizations, and non-freelance work settings. Therefore, there is an empirical gap in understanding how learning agility and digital literacy influence personal creativity among freelance designers, whose work characteristics are more flexible, uncertain, and dependent on self-directed learning.

In addition to the empirical gap, there is also a contextual gap in previous studies. Most prior research has focused on students, teachers, employees, or workers in formal organizations, while freelance designers remain underrepresented. This is important because freelance designers work without fixed organizational structures, stable supervision, or permanent employment systems. Their creative performance is shaped by independent learning, digital platform usage, client feedback, changing visual trends, deadline pressure, and income uncertainty. As a result, the factors that influence personal creativity among freelance designers may differ from those found in formal organizational or educational contexts. In Malang City, where the creative economy continues to develop, understanding these factors is important for strengthening the sustainability and competitiveness of local creative talent.

A theoretical gap also exists in explaining the relationship between learning agility, digital literacy, work motivation, and personal creativity. Many previous studies have examined creativity using creativity theory, self-determination theory, or human capital theory. Although these theories are useful, they do not fully explain the reciprocal interaction between personal capability, environmental learning experience, motivation, and creative behavior. Therefore, this study applies Social Cognitive Theory as the main theoretical foundation. Social Cognitive Theory explains that individual behavior is formed through the reciprocal interaction between personal factors, environment, and behavior (Bandura, 1989). In this study, learning agility and digital literacy represent personal and cognitive capabilities, work motivation represents an internal psychological mechanism, and personal creativity represents the behavioral outcome of adaptive and motivated creative work. Thus, Social Cognitive Theory is considered appropriate because it explains not only whether learning agility and digital literacy influence creativity, but also how these capabilities are activated through work motivation in a digital creative work environment.

Work motivation is positioned as a mediating variable because creativity does not only depend on ability, but also on the psychological drive that directs individuals to persist, explore, and complete creative tasks. Work motivation refers to the internal and external forces that influence the direction, intensity, and persistence of work behavior (Pinder, 2008). From the perspective of Social Cognitive Theory, work motivation is closely related to self-efficacy and self-regulation, where individuals who believe in their abilities and can regulate their work behavior are more likely to show persistence and creative effort (Bandura, 1989). Previous studies have shown that work motivation has a positive influence on work outcomes and performance (Putra et al., 2025; Rozi et al., 2024; Wang et al., 2024). However, limited studies have examined whether work motivation can explain the mechanism through which

learning agility and digital literacy contribute to personal creativity among freelance designers.

There is also a methodological gap in previous research. Many studies have examined the direct effect of digital literacy on creativity or the influence of motivation on performance, but relatively few have tested learning agility and digital literacy simultaneously as predictors of personal creativity with work motivation as a mediating variable. This simultaneous mediation model is important because personal creativity in freelance design work may not emerge directly from adaptive learning ability or digital competence alone. Instead, these capabilities may need to be supported by work motivation, which encourages individuals to direct effort, maintain persistence, and transform knowledge or digital resources into creative outcomes. Therefore, the use of a quantitative approach with Partial Least Squares–Structural Equation Modeling is relevant because it allows the direct and indirect relationships among latent variables to be tested simultaneously (Hair et al., 2021).

Based on the empirical, theoretical, contextual, and methodological gaps described above, this study aims to analyze the influence of learning agility and digital literacy on personal creativity, with work motivation as a mediating variable, among freelance designers in Malang City. This study is expected to contribute to the literature on creative human resource management by explaining how adaptive learning capability, digital literacy, and work motivation shape personal creativity in freelance creative work. Practically, the findings are expected to provide insights for freelance designers, creative communities, and creative industry stakeholders in developing strategies to strengthen personal creativity through adaptive learning and work motivation in the digital creative economy.

REVIEW OF LITERATURE

Social Cognitive Theory (SCT)

Social Cognitive Theory (SCT) is used as the main theoretical foundation of this study because it explains that individual behavior is shaped through the reciprocal interaction between personal factors, environment, and behavior (Bandura, 1989). In this study, learning agility and digital literacy represent individual capabilities, work motivation represents an internal psychological mechanism, and personal creativity represents the behavioral outcome. SCT is relevant to freelance designers because their creative work is shaped by self-directed learning, digital platform use, client feedback, and the ability to regulate their own work process in a flexible and uncertain environment.

The main constructs of SCT used in this study include self-efficacy, reciprocal determinism, observational learning, and self-regulation. Self-efficacy explains how individuals' belief in their ability supports motivation and creative action (Bandura, 1989). Reciprocal determinism explains the interaction between freelance designers' personal capabilities, digital work environment, and creative behavior. Observational learning occurs when designers learn from visual references, digital trends, tutorials, and client preferences through digital platforms. Meanwhile, self-regulation explains how designers set goals, manage deadlines, evaluate their work, and maintain effort. Therefore, SCT provides a suitable framework for explaining how learning agility and digital literacy may influence personal creativity through work motivation.

Learning Agility

Learning agility refers to an individual's ability and willingness to learn from experience and apply that learning to new, complex, and uncertain situations (Lombardo & Eichinger, 2000). In this study, learning agility is not merely understood as adaptability or openness to experience, but as an active capability to reflect on previous experience, accept feedback, solve new problems, and adjust work strategies. This capability is important for freelance designers because they must continuously respond to changing design trends, client demands, and technological developments.

Learning agility consists of mental agility, people agility, change agility, and results agility (Lombardo & Eichinger, 2000). Mental agility refers to the ability to analyze problems from various perspectives, people agility refers to the ability to learn from others and accept feedback, change agility refers to the willingness to try new approaches, and results agility refers to the ability to achieve outcomes in challenging situations. From the SCT perspective, learning agility strengthens self-efficacy and self-regulation, which support creative behavior (Bandura, 1989). Previous studies also show that learning agility contributes to creativity and innovative work behavior (Alhulail & Singh, 2023; Hamdani et al., 2023).

Digital Literacy

Digital literacy is the ability to access, understand, evaluate, and create information through digital media and technology (Livingstone, 2004). In this study, digital literacy includes four dimensions: access, analysis, evaluation, and content creation. Access refers to the ability to use digital devices and platforms, analysis refers to understanding digital information, evaluation refers to assessing the credibility and relevance of information, and content creation refers to producing digital content creatively and ethically.

Digital literacy can support personal creativity because it provides freelance designers with access to visual references, design trends, creative tools, tutorials, and digital communities. Through the SCT concept of observational learning, digital platforms become a learning environment where designers observe, interpret, and transform digital information into creative ideas (Bandura, 1989). However, digital literacy does not automatically produce creativity if it is used only for technical or operational purposes. Its effect on creativity may depend on psychological factors such as motivation, self-efficacy, or growth mindset. Previous studies show that digital literacy can enhance creative thinking (Kesici, 2022; Warizal et al., 2023), but other findings suggest that its effect may require mediating variables (Luthfiah Rahman et al., 2025; Pranata et al., 2025).

Personal Creativity

Personal creativity refers to an individual's ability to generate ideas or solutions that are both novel and useful (Runco, 2006; Runco & Jaeger, 2012). In freelance design work, personal creativity is reflected in the ability to create unique visual ideas, develop a personal style, solve design problems, and produce work that meets client needs. Creativity is not only related to artistic expression, but also to relevance, usefulness, and problem-solving ability.

Creativity is influenced by cognitive, motivational, and environmental factors. Amabile (1996) explains that creativity is formed through expertise, creative thinking skills, and task motivation. Similarly, Runco (2014, 2018) emphasizes that creativity develops through cognitive processes, reflection, motivation, and environmental interaction. This view is consistent with SCT, which explains that creative behavior emerges from the interaction between personal capability, environmental input, and self-regulated action (Bandura, 1989).

Work Motivation

Work motivation refers to the internal and external forces that determine the direction, intensity, and persistence of work behavior (Pinder, 2008). In the context of freelance designers, work motivation is important because they often face uncertain income, tight deadlines, client revisions, and competitive digital markets. Motivated designers are more likely to persist, explore alternative ideas, and complete creative tasks despite pressure.

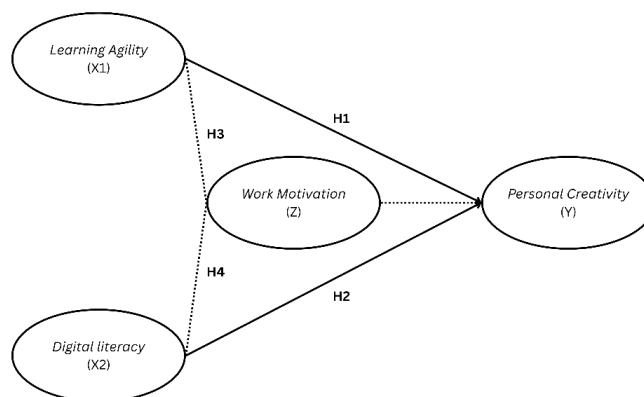
From the SCT perspective, work motivation is closely related to self-efficacy and self-regulation (Bandura, 1989). Individuals who believe in their abilities and can regulate their work behavior tend to show stronger effort and persistence. Therefore, work motivation functions as a psychological mechanism that connects individual capabilities with creative behavior. Previous studies show that work motivation significantly influences work outcomes and performance (Putra et al., 2025; Rozi et al., 2024; Wang et al., 2024). In this study, work motivation is positioned as a mediating variable between learning agility, digital literacy, and personal creativity.

RESEARCH METHOD

This study employs an explanatory quantitative approach to elucidate the causal relationships among variables within the conceptual model. This approach was chosen because the study focuses on objectively measuring psychological and behavioral variables using standardized instruments analyzed through inferential statistics. According to Creswell & Creswell (2018) quantitative research is used to test hypotheses and relationships between variables through structured procedures based on numerical data. This study also employs a structural equation modeling (SEM) approach to examine the direct and indirect effects of learning agility and digital literacy on personal creativity via work motivation. According to Hair et al. (2021) structural equation modeling allows for the simultaneous testing of relationships among latent variables, thereby providing a more comprehensive understanding of the mechanisms underlying the relationships among the study's variables.

Research Model

Figure 2 Research Model



Hypothesis

H1: Learning agility has a positive effect on personal creativity

Learning agility is expected to have a positive effect on personal creativity because individuals who are able to learn from experience tend to be more capable of adapting to new challenges, accepting feedback, and developing alternative solutions. In the context of

freelance designers, learning agility enables individuals to evaluate previous design projects, respond to client revisions, and adjust their creative strategies according to changing market trends. From the perspective of Social Cognitive Theory, learning agility strengthens self-efficacy and self-regulation because successful learning experiences increase individuals' confidence and ability to manage their behavior in uncertain situations (Bandura, 1989). This capability supports the development of personal creativity, which requires originality, usefulness, and the ability to solve problems creatively (Runco, 2006; Runco & Jaeger, 2012). Previous studies have also shown that learning agility is related to creativity and innovative work behavior (Alhulail & Singh, 2023; Hamdani et al., 2023).

H2: Digital literacy has a positive effect on personal creativity

Digital literacy is expected to have a positive effect on personal creativity because it allows individuals to access, analyze, evaluate, and create digital information effectively (Livingstone, 2004). For freelance designers, digital literacy provides access to visual references, design trends, digital tools, tutorials, and online creative communities. Through the mechanism of observational learning in Social Cognitive Theory, designers can learn from digital content, observe creative patterns, evaluate visual ideas, and transform digital references into original design outputs (Bandura, 1989). Digital literacy also supports creativity-relevant skills because it helps individuals select useful information and combine various digital resources into new creative ideas. Empirical studies have shown that digital literacy can improve creative thinking and support the development of creative abilities (Kesici, 2022; Suriyani et al., 2025; Warizal et al., 2023).

H3: Work motivation mediates the effect of learning agility on personal creativity

Work motivation is expected to mediate the effect of learning agility on personal creativity. Learning agility does not only provide individuals with adaptive learning capability, but also strengthens their psychological readiness to face work challenges. In Social Cognitive Theory, individuals who successfully learn from experience tend to develop stronger self-efficacy and self-regulation, which then increase their motivation to complete tasks and achieve better outcomes (Bandura, 1989). Work motivation refers to the internal and external forces that determine the direction, intensity, and persistence of work behavior (Pinder, 2008). In freelance design work, motivated designers are more likely to persist in dealing with revisions, explore alternative ideas, and maintain effort until creative goals are achieved. Previous studies indicate that learning agility can increase work engagement and psychological empowerment, while work motivation contributes to stronger work outcomes (Ariska et al., 2025; Sutardi & Novitasari, 2024; Wang et al., 2024).

H4: Work motivation mediates the effect of digital literacy on personal creativity

Work motivation is also expected to mediate the effect of digital literacy on personal creativity. Digital literacy may not automatically produce creative outcomes if digital skills are used only for technical purposes, such as operating software, communicating with clients, or searching for references. Therefore, a psychological mechanism is needed to explain how digital competence can be transformed into creative behavior. From the perspective of Social Cognitive Theory, digital literacy can strengthen self-efficacy because individuals who are able to use digital tools and platforms effectively tend to feel more confident in completing digital-based work (Bandura, 1989). This confidence can increase work motivation by reducing uncertainty, improving perceived competence, and encouraging individuals to invest greater effort in creative tasks. Work motivation then directs the intensity and

persistence of designers' behavior in exploring ideas, evaluating alternatives, and producing creative outputs (Pinder, 2008). In this sense, digital literacy functions as an enabling capability, while work motivation functions as the psychological activation mechanism that converts digital capability into personal creativity. Previous studies have shown that digital literacy can increase motivation in digital-based learning and work activities, while motivation is an important factor in supporting creative and performance-related outcomes (Runco, 2006; Wahyuni et al., 2023; Wang et al., 2024). **Population, Sample, and Sampling Techniques**

The population in this study consists of freelance designers in Malang who work independently, are not affiliated with any specific company, and earn project-based income. The population includes graphic designers, digital illustrators, multimedia editors, and other creative professionals who rely on digital skills in their work. According to Creswell & Creswell (2018) a population is a group of individuals sharing specific characteristics that serve as the basis for research generalizations. Freelance designers were selected because they work in a dynamic, digital, and competitive environment, making them relevant to the variables of learning agility, digital literacy, work motivation, and personal creativity. The city of Malang was chosen because it has a thriving creative economy ecosystem and is part of the UNESCO Creative Cities Network (UCCN) in the Media Arts category, thereby supporting the activities and innovations of the digital creative industry.

The sample size was determined based on the requirements of Partial Least Squares–Structural Equation Modeling (PLS-SEM). Following Hair et al. (2021), the recommended minimum sample size is 5–10 respondents for each observed indicator. Since this study used 42 indicators, the required sample size ranged from 210 to 420 respondents. The final sample consisted of 290 freelance designers in Malang City, which exceeded the minimum requirement and was considered sufficient for estimating the proposed PLS-SEM model. After the screening process, 290 complete and eligible questionnaires were retained and used as valid data for analysis.

The inclusion criteria required respondents to: (1) have worked actively as freelance designers for at least one year and have obtained a freelance design job within the last two months; (2) not be bound by a permanent employment contract with a particular company; (3) use digital devices and platforms in the design process; and (4) reside in Malang City. These criteria were applied to ensure that the respondents were directly relevant to the research context and capable of providing valid information related to learning agility, digital literacy, work motivation, and personal creativity.

The sampling technique used in this study was purposive sampling, which involves selecting respondents based on specific criteria aligned with the research objectives. Data were collected through creative communities, freelance designer networks, and social media platforms commonly used by freelance designers, including Instagram, Discord, and WhatsApp. Because the questionnaire was distributed through an open online link rather than a fixed sampling frame, the exact response rate could not be calculated conventionally. However, all 290 responses included in the final dataset met the inclusion criteria and were complete for analysis. The final sample also reflected the relevance of the research context, as all respondents reported using digital devices and platforms in their design process and were distributed across five districts in Malang City.

Data Analysis Technique

Data analysis in this study was conducted using SmartPLS with a Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach. PLS-SEM was chosen because it is suitable for analyzing complex models involving latent variables and is capable of testing direct and indirect (mediation) relationships simultaneously (Hair et al., 2021).

The analysis was conducted in two main stages: evaluation of the measurement model (outer model) and the structural model (inner model). The evaluation of the outer model aimed to test the validity and reliability of the research constructs. Convergent validity was tested using outer loadings and Average Variance Extracted (AVE), while discriminant validity was tested using cross-loadings. Construct reliability was evaluated using Composite Reliability and Cronbach’s Alpha.

Next, an inner model evaluation was conducted to test the relationships among the study variables. This analysis included the coefficient of determination (R^2) to assess the independent variables’ ability to explain the dependent variable, the predictive relevance (Q^2), and hypothesis testing using path coefficients and bootstrapping procedures.

To test the mediating role of work motivation, this study employed an indirect effect analysis within the PLS-SEM framework. The indirect effects of learning agility and digital literacy on personal creativity via work motivation were directly analyzed within the structural model using bootstrapping procedures, thereby providing a more comprehensive estimation of both direct and indirect relationships.

An operational definition of a variable is the translation of a research concept into indicators that can be measured empirically. According to Livingstone (2004) operational definitions are used to provide clear boundaries for variables so that they can be measured objectively and to avoid differences in interpretation. The operationalization of variables in this study was based on relevant theories, namely learning agility as defined by Lombardo & Eichinger (2000), digital literacy as defined by (Livingstone, 2004), work motivation as defined by (Pinder, 2008), and personal creativity as defined by (Runco, 2006).

Table 1
Operational Definition Of A Variable

No.	Variable	Dimension	Indicator	Scale
1.	Learning Agility (X1)	Mental Agility	I am able to analyze work-related problems from various perspectives	Likert 1–5
			I feel comfortable working in uncertain or ambiguous situations	
			I can find new solutions when old methods are no longer effective	
		People Agility	I am open to criticism and feedback from clients or coworkers.	
			I am able to understand the needs and reactions of others in the workplace.	
			I can adapt my communication style to suit different client personalities.	
		Change Agility	I’m interested in trying new methods or approaches to work.	
			I’m not afraid of failure when trying new things.	
			I see change as an opportunity to learn and grow.	

		Results Agility	I continue to strive for the best results even when working conditions change. I am able to adapt my work strategies to meet project goals. I focus on completing my work to a high standard in new situations.	
2.	Digital Literacy (X2)	Access	I am able to operate the digital devices I use for work. I am accustomed to using various digital platforms for design purposes. I can adapt my use of digital technology to the needs of each project.	Likert 1–5
		Analysis	I am able to understand the meaning of the digital information I access. I can critically read and interpret visual messages. I am able to identify digital trends relevant to my work	
		Evaluation	I am able to assess the credibility of digital information sources. I can distinguish between valid and invalid digital information. I consider the purpose and context before using digital information.	
		Content Creation	I am able to create digital content creatively. I understand the ethics of using and producing digital content. I am able to combine various digital media in my design work.	
3.	Personal Creativity (Y)	Originality	I am able to come up with ideas that are different from most people's. I often find unique ways to complete design projects. The ideas I come up with reflect my personal style and way of thinking.	Likert 1–5
		Effectiveness	The ideas I generate are relevant to the client's needs. My work is not only innovative but also practical. My creative solutions help solve design problems effectively	
		Creative Reasoning Process	I am able to creatively apply my past experiences to new situations. I develop ideas through reflection and deep thinking. I adapt creative ideas based on an evaluation of my previous work.	
4.	Work Motivation (Z)	Direction of Work Behavior	I have a clear objective for every design project I undertake. I direct my efforts toward achieving results that meet the client's requirements. I set work priorities so that I can focus my energy on completing the main tasks.	Likert 1–5

Intensity of Effort	I give my all when working on design projects.
	I step up my efforts when faced with demanding tasks or tight deadlines.
	I am willing to devote extra time and energy to produce the best possible results.
Persistence of Work Behavior	I keep working even when faced with difficulties or obstacles.
	I strive to see projects through to completion, even when the process is challenging.
	I maintain my commitment until the project's goals are fully achieved.

RESULTS AND DISCUSSION

Outer Model Test Result

Before testing hypotheses in the structural model (inner model), an evaluation of the measurement model (outer model) is first conducted. The evaluation of the outer model aims to assess the validity and reliability of the research instruments, specifically to what extent the indicators used are able to accurately and consistently represent the latent constructs being measured. In this study, the four latent variables, learning agility (X1), digital literacy (X2), personal creativity (Y), and work motivation (Z), are treated as reflective constructs. Therefore, the measurement model evaluation was conducted through a series of tests, including convergent validity tests, discriminant validity tests, and reliability tests using Cronbach's alpha and composite reliability, in accordance with the criteria recommended by (Hair et al., 2021).

Validity Test

Table 2
Outer Loading Result

Variable	Item	Outer loading	Description
Learning agility (X1)	X1.1.1	0.788	Valid
	X1.1.2	0.715	Valid
	X1.1.3	0.747	Valid
	X1.2.1	0.760	Valid
	X1.2.2	0.729	Valid
	X1.2.3	0.735	Valid
	X1.3.1	0.735	Valid
	X1.3.2	0.717	Valid
	X1.3.3	0.770	Valid
	X1.4.1	0.741	Valid
	X1.4.2	0.768	Valid
	X1.4.3	0.766	Valid
Digital literacy (X2)	X2.1.1	0.771	Valid
	X2.1.2	0.814	Valid
	X2.1.3	0.774	Valid
	X2.2.1	0.777	Valid
	X2.2.2	0.788	Valid
	X2.2.3	0.773	Valid
	X2.3.1	0.758	Valid
	X2.3.2	0.754	Valid
	X2.3.3	0.751	Valid

	X2.4.1	0.788	Valid
	X2.4.2	0.794	Valid
	X2.4.3	0.790	Valid
Personal creativity (Y)	Y1.1	0.726	Valid
	Y1.2	0.736	Valid
	Y1.3	0.705	Valid
	Y2.1	0.728	Valid
	Y2.2	0.751	Valid
	Y2.3	0.712	Valid
	Y3.1	0.703	Valid
	Y3.2	0.783	Valid
	Y3.3	0.796	Valid
Work motivation (Z)	Z1.1	0.750	Valid
	Z1.2	0.722	Valid
	Z1.3	0.737	Valid
	Z2.1	0.708	Valid
	Z2.2	0.712	Valid
	Z2.3	0.723	Valid
	Z3.1	0.727	Valid
	Z3.2	0.736	Valid
	Z3.3	0.788	Valid

Source: Data compiled by the researchers (2026)

Based on the test results presented in Table 2, all indicators of the four research variables showed outer loading values above the threshold of 0.70. Specifically, the learning agility variable (X1) had outer loading values ranging from 0.715 (X1.1.2) to 0.788 (X1.1.1). The digital literacy variable (X2) shows outer loading values ranging from 0.751 (X2.3.3) to 0.814 (X2.1.2). Furthermore, the personal creativity variable (Y) has outer loading values ranging from 0.703 (Y3.1) to 0.796 (Y3.3). Finally, the work motivation variable (Z) shows outer loading values ranging from 0.708 (Z2.1) to 0.788 (Z3.3). All obtained outer loading values have exceeded the required minimum criteria; therefore, it can be concluded that each indicator makes a strong and significant contribution to explaining its respective latent construct, allowing us to proceed to examine the AVE values.

Table 3
Result of Average Variance Extracted

Variable	Result AVE	Description
Learning agility (X1)	0.560	Valid
Digital literacy (X2)	0.605	Valid
Personal creativity (Y)	0.545	Valid
Work motivation (Z)	0.539	Valid

Source: Data compiled by the researchers (2026)

Based on the Average Variance Extracted (AVE) value. A construct is considered to have adequate convergent validity if the AVE value is ≥ 0.50 , meaning that the latent construct accounts for more than half of the variance of all its indicators (Hair et al., 2021). The test results presented in Table 5 show that all variables in this study meet these criteria. The learning agility variable has an AVE value of 0.560, the digital literacy variable 0.605, the personal creativity variable 0.545, and the work motivation variable 0.539. Thus, based on the outer loading and AVE values, it can be stated that all constructs in this study have met the requirements for good convergent validity.

Table 4 Result of Cross Loading

Indicator	Learning agility	Digital literacy	Personal Creativity	Work motivation
x1.1.1	0.788	0.482	0.651	0.694
x1.1.2	0.715	0.484	0.598	0.585
x1.1.3	0.747	0.493	0.669	0.689
x1.2.1	0.760	0.532	0.642	0.661
x1.2.2	0.729	0.541	0.649	0.642
x1.2.3	0.735	0.532	0.627	0.647
x1.3.1	0.735	0.494	0.622	0.626
x1.3.2	0.717	0.401	0.611	0.622
x1.3.3	0.770	0.489	0.669	0.723
x1.4.1	0.741	0.448	0.659	0.677
x1.4.2	0.768	0.490	0.673	0.682
x1.4.3	0.766	0.441	0.675	0.689
x2.1.1	0.477	0.771	0.481	0.494
x2.1.2	0.538	0.814	0.533	0.537
x2.1.3	0.480	0.774	0.502	0.488
x2.2.1	0.435	0.777	0.447	0.456
x2.2.2	0.536	0.788	0.540	0.528
x2.2.3	0.553	0.773	0.537	0.548
x2.3.1	0.457	0.758	0.476	0.493
x2.3.2	0.533	0.754	0.522	0.523
x2.3.3	0.476	0.751	0.480	0.486
x2.4.1	0.503	0.788	0.533	0.512
x2.4.2	0.537	0.794	0.518	0.525
x2.4.3	0.512	0.790	0.508	0.534
y1.1	0.653	0.444	0.726	0.651
y1.2	0.648	0.488	0.736	0.676
y1.3	0.614	0.424	0.705	0.680
y2.1	0.631	0.527	0.728	0.656
y2.2	0.619	0.466	0.751	0.651
y2.3	0.602	0.445	0.712	0.652
y3.1	0.636	0.521	0.703	0.641
y3.2	0.657	0.502	0.783	0.705
y3.3	0.677	0.518	0.796	0.719
z1.1	0.665	0.443	0.645	0.750
z1.2	0.652	0.499	0.690	0.722
z1.3	0.635	0.451	0.637	0.737
z2.1	0.621	0.506	0.653	0.708
z2.2	0.640	0.486	0.642	0.712
z2.3	0.680	0.522	0.681	0.723
z3.1	0.640	0.465	0.669	0.727
z3.2	0.644	0.488	0.689	0.736
z3.3	0.668	0.480	0.688	0.788

Source: Data compiled by the researchers (2026)

The cross-loading test results presented in Table 4 show that all indicators of each variable have the highest loading values on the construct they are intended to measure. For example, indicator X1.1.1 has a loading value of 0.788 on the learning agility construct, which is higher than its cross-loading values on the digital literacy (0.482), personal creativity (0.651), and work motivation (0.694) constructs. The same pattern is observed in the other

indicators, where each indicator consistently shows a stronger correlation with its own construct compared to other constructs.

Reliability Test

Table 5
Result Cronbach's Alpha and Composite Reliability

Variable	Cronbach's alpha	Composite reliability (rho_a)	Description
Learning agility (X1)	0.928	0.929	Reliable
Digital literacy (X2)	0.941	0.941	Reliable
Personal creativity (Y)	0.895	0.896	Reliable
Work motivation (Z)	0.893	0.893	Reliable

Source: Data compiled by the researchers (2026)

The test results presented in Table 5 show that all variables in this study exhibit Cronbach's Alpha and Composite Reliability values above the required threshold. Specifically, the learning agility variable has a Cronbach's Alpha value of 0.928 and a Composite Reliability of 0.929. The digital literacy variable showed a Cronbach's Alpha value of 0.941 and a Composite Reliability of 0.941. Furthermore, the personal creativity variable had a Cronbach's Alpha value of 0.895 and a Composite Reliability of 0.896. Finally, the work motivation variable showed a Cronbach's Alpha value of 0.893 and a Composite Reliability of 0.893.

Table 6
Result of Variance Inflation Factor

Indicator	Result VIF	Description
x1.1.1	2.309	No Multicollinearity (Safe)
x1.1.2	1.896	No Multicollinearity (Safe)
x1.1.3	2.059	No Multicollinearity (Safe)
x1.2.1	2.144	No Multicollinearity (Safe)
x1.2.2	1.979	No Multicollinearity (Safe)
x1.2.3	1.945	No Multicollinearity (Safe)
x1.3.1	2.036	No Multicollinearity (Safe)
x1.3.2	1.854	No Multicollinearity (Safe)
x1.3.3	2.168	No Multicollinearity (Safe)
x1.4.1	2.044	No Multicollinearity (Safe)
x1.4.2	2.121	No Multicollinearity (Safe)
x1.4.3	2.100	No Multicollinearity (Safe)
x2.1.1	2.336	No Multicollinearity (Safe)
x2.1.2	3.011	No Multicollinearity (Safe)
x2.1.3	2.325	No Multicollinearity (Safe)
x2.2.1	2.371	No Multicollinearity (Safe)
x2.2.2	2.477	No Multicollinearity (Safe)
x2.2.3	2.267	No Multicollinearity (Safe)
x2.3.1	2.155	No Multicollinearity (Safe)
x2.3.2	2.129	No Multicollinearity (Safe)
x2.3.3	2.184	No Multicollinearity (Safe)
x2.4.1	2.622	No Multicollinearity (Safe)
x2.4.2	2.639	No Multicollinearity (Safe)

x2.4.3	2.411	No Multicollinearity (Safe)
y1.1	1.821	No Multicollinearity (Safe)
y1.2	1.910	No Multicollinearity (Safe)
y1.3	1.801	No Multicollinearity (Safe)
y2.1	1.847	No Multicollinearity (Safe)
y2.2	1.932	No Multicollinearity (Safe)
y2.3	1.775	No Multicollinearity (Safe)
y3.1	1.712	No Multicollinearity (Safe)
y3.2	2.073	No Multicollinearity (Safe)
y3.3	2.199	No Multicollinearity (Safe)
z1.1	1.903	No Multicollinearity (Safe)
z1.2	1.774	No Multicollinearity (Safe)
z1.3	1.878	No Multicollinearity (Safe)
z2.1	1.642	No Multicollinearity (Safe)
z2.2	1.665	No Multicollinearity (Safe)
z2.3	1.707	No Multicollinearity (Safe)
z3.1	1.802	No Multicollinearity (Safe)
z3.2	1.803	No Multicollinearity (Safe)
z3.3	2.114	No Multicollinearity (Safe)

Source: Data compiled by the researchers (2026)

Based on the test results presented in Table 8, all indicators of the four research variables show VIF values well below the threshold of 5, and even below 10. Specifically, the VIF values for the learning agility indicator (X1) range from 1.854 to 2.309. The digital literacy indicator (X2) has VIF values between 2.129 and 3.011. The personal creativity indicator (Y) shows VIF values in the range of 1.712 to 2.199. Meanwhile, the work motivation indicator (Z) has VIF values between 1.642 and 2.114. Thus, there are no signs of serious multicollinearity among the indicators in this study's measurement model.

In addition to assessing multicollinearity, the VIF results were also used as a supplementary diagnostic procedure to evaluate the potential presence of common method bias. Since all variables were collected from the same respondents using the same questionnaire, common method bias may occur if the measurement method artificially inflates the relationships among constructs. Following the full collinearity assessment approach, VIF values below 3.3 indicate that common method bias is unlikely to be a serious concern. In this study, the highest VIF value was 3.011, which is below the conservative threshold of 3.3. Therefore, the results suggest that common method bias was not a severe threat to the validity of the model.

Inner Model Test Result

Table 7
Result of Path Coefficient

Variable	Path Coefficient Result	Description
Learning agility Personal creativity	0.253	Has a positive and significant impact
Learning agility Work motivation	0.793	Has a positive and significant impact
Digital literacy Personal creativity	0.068	A positive but insignificant effect
Digital literacy Work motivation	0.143	A positive but insignificant effect

<i>Work motivation</i>	0.639	Has a positive and significant impact
<i>Personal creativity</i>		

Source: Data compiled by the researchers, (2026)

Table 7 shows that learning agility has a positive effect on personal creativity (coefficient 0.253, weak to moderate category) and a strong effect on work motivation (coefficient 0.793). Meanwhile, digital literacy has only a very weak effect on personal creativity (0.068) and a weak effect on work motivation (0.143). Work motivation, on the other hand, has a strong effect on personal creativity (0.639), indicating its potential as a mediating variable specifically in channelling the effect of learning agility on personal creativity. The statistical significance of each path will be further tested through a bootstrapping procedure.

Table 8
Result of Bootstrapping

Variable	T-Statistic	P-Values	Description
<i>Learning agility</i> <i>Personal creativity</i>	2.162	0.031	significant
<i>Learning agility</i> <i>Work motivation</i>	8.387	0.000	significant
<i>Digital literacy</i> <i>Personal creativity</i>	1.615	0.107	not significant
<i>Digital literacy</i> <i>Work motivation</i>	1.532	0.126	not significant
<i>Work motivation</i> <i>Personal creativity</i>	6.069	0.000	significant

Source: Data compiled by the researchers, (2026)

The results of the bootstrapping test indicate that, of the five paths tested, three were found to be significant. Learning agility has a positive and significant effect on both personal creativity ($t=2.162$; $p=0.031$) and work motivation ($t=8.387$; $p=0.000$). Work motivation was also found to have a significant effect on personal creativity ($t=6.069$; $p=0.000$). Conversely, digital literacy did not show a significant effect on either personal creativity ($t=1.615$; $p=0.107$) or work motivation ($t=1.532$; $p=0.126$). This pattern of findings indicates that work motivation has the potential to be a significant mediator in the relationship between learning agility and personal creativity, while the mediating role of digital literacy requires further testing through an indirect effect analysis.

Table 9
Result of R-Square

Variable	Value R-Square	Description
<i>Personal creativity</i>	0.844	Strong
<i>Work motivation</i>	0.796	Strong

Source: Data compiled by the researchers, (2026)

The coefficient of determination (R^2) was used to evaluate the explanatory power of the structural model. In PLS-SEM, R^2 indicates the extent to which the exogenous variables are able to explain the variance of the endogenous variables. Following Hair et al. (2021), R^2 values of 0.75, 0.50, and 0.25 can be interpreted as strong, moderate, and weak explanatory power, respectively.

The results show that personal creativity has an R^2 value of 0.844, indicating that learning agility, digital literacy, and work motivation collectively explain 84.4% of the variance in personal creativity. The remaining 15.6% is explained by other variables outside

the research model. Meanwhile, work motivation has an R^2 value of 0.796, indicating that learning agility and digital literacy explain 79.6% of the variance in work motivation, while the remaining 20.4% is influenced by other factors not included in this study. These results indicate that the structural model has strong explanatory power.

Table 10
Result of Q-Square

Variable	Value Q-Square	Description
<i>Work motivation</i>	0.781	Strong
<i>Personal creativity</i>	0.741	Strong

Source: Data compiled by the researchers (2026)

Predictive relevance was assessed using the Q-square (Q^2) value obtained through the blindfolding procedure. In PLS-SEM, Q^2 is used to determine whether the model has predictive relevance for endogenous constructs. A model is considered to have predictive relevance when the Q^2 value is greater than zero. Following Hair et al. (2021), Q^2 values above 0.35 indicate strong predictive relevance.

The results indicate that work motivation has a Q^2 value of 0.781, while personal creativity has a Q^2 value of 0.741. Both values are greater than 0.35, indicating strong predictive relevance. This means that the proposed model is not only able to explain the endogenous variables but also has strong predictive capability. Therefore, the structural model can be considered adequate for explaining and predicting work motivation and personal creativity among freelance designers in Malang City.

Table 11
Result of Indirect Effect

Indirect Effect	T Statistics	P Values	Description
LA→WM→PC	7.300	0.000	Significant (Full Mediation)
DL→WM→PC	1.376	0.169	not significant (does not fully mediate)

Source: Data compiled by the researchers, (2026)

The indirect effect test shows that work motivation significantly mediates the relationship between learning agility and personal creativity ($t = 7.300$; $p = 0.000$). However, because the direct effect of learning agility on personal creativity remains significant ($t = 2.162$; $p = 0.031$), the mediation is categorized as partial mediation rather than full mediation. This means that learning agility influences personal creativity both directly and indirectly through work motivation. In contrast, the mediation path of digital literacy on personal creativity through work motivation is not significant ($t = 1.376$; $p = 0.169$), indicating that work motivation does not mediate the relationship between digital literacy and personal creativity.

The findings show that learning agility has a positive and significant effect on personal creativity among freelance designers in Malang City. This result indicates that designers who are able to learn from experience, accept feedback, adapt to changing trends, and apply new knowledge in uncertain situations are more likely to generate original and useful creative ideas. In the freelance design context, learning agility is particularly important because designers work independently, face diverse client demands, and are required to continuously update their creative approaches and technical competencies. This finding is consistent with the concept of learning agility, which emphasizes the ability to learn from

experience and effectively apply that learning to new and unfamiliar situations (Lombardo & Eichinger, 2000). From the perspective of Social Cognitive Theory, repeated learning experiences can strengthen self-efficacy and self-regulation because individuals become more confident in managing challenges and achieving desired outcomes (Bandura, 1989).

The positive role of learning agility is also supported by empirical evidence. Meuse (2019) found that learning agility is strongly related to successful performance and potential, indicating that agile learners are more capable of responding effectively to challenging situations. Alhulail & Singh (2023) Also showed that learning-related capability is associated with creativity in technology-based learning environments Hamdani et al. (2023) found that learning agility contributes to innovative work behavior among working students. Although these studies were conducted in different contexts, they support the argument that individuals who learn quickly, adaptively, and reflectively are more likely to develop creative and innovative responses. Therefore, in the context of freelance designers, personal creativity is not merely an inherent artistic characteristic, but is also shaped by continuous learning, adaptability, and self-directed development.

In contrast, digital literacy does not have a significant effect on personal creativity. This finding suggests that the ability to access, analyze, evaluate, and create digital content does not automatically lead to higher creativity among freelance designers. Although digital literacy is theoretically important because it enables individuals to access, understand, evaluate, and use digital information effectively (Livingstone, 2004), its contribution to creativity depends on how digital competence is transformed into creative thinking and creative output. One possible explanation is that digital literacy has become a basic professional requirement rather than a distinguishing capability among freelance designers. Since most designers already possess sufficient digital skills to operate design software, communicate with clients, search for references, and manage online portfolios, variations in digital literacy may no longer explain differences in creative performance.

This interpretation is consistent with van Laar et al. (2020), who distinguish digital skills from higher-order twenty-first-century skills such as creativity, critical thinking, and problem-solving. Digital competence may support access to information and task execution, but creativity requires deeper cognitive processes, including interpretation, reflection, experimentation, and knowledge integration. Previous studies such as Kesici (2022) and Warizal et al. (2023) found that digital literacy can support creative thinking in educational contexts. However, the insignificant finding in this study suggests that such a relationship may not operate in the same way among freelance designers. In freelance design work, digital literacy may function as an enabling resource that supports the work process, but not necessarily as a direct source of personal creativity.

Another explanation is that digital literacy in freelance design work may function more as a technical and operational capability than as a psychological or creative driver. Designers may use digital platforms mainly to search for references, communicate with clients, monitor trends, and promote their services. However, creativity requires more than access to information. Creativity involves generating ideas that are both novel and useful (Runco & Jaeger, 2012). Therefore, digital information must be processed through reflection, interpretation, experimentation, and transformation before it can contribute to creative outcomes. From the perspective of Social Cognitive Theory, digital platforms can facilitate observational learning, but observational learning contributes to creativity only when

individuals actively reinterpret and reconstruct the knowledge they acquire (Bandura, 1989). Consequently, the insignificant effect of digital literacy suggests that digital competence alone is insufficient to explain personal creativity without deeper cognitive engagement and adaptive learning processes.

The results further show that work motivation partially mediates the relationship between learning agility and personal creativity. This finding supports H3 and indicates that learning agility enhances personal creativity through both direct and indirect mechanisms. First, learning agility directly contributes to creativity by enabling freelance designers to learn from experience, adapt to changing client demands, and develop innovative solutions. Second, learning agility strengthens work motivation by increasing confidence, persistence, and readiness to face challenges. From the perspective of Social Cognitive Theory, adaptive learning experiences can strengthen self-efficacy, which then encourages individuals to invest greater effort in achieving desired outcomes (Bandura, 1989). This motivational mechanism is also consistent with Deci & Ryan (2000), who explain that motivation is supported by competence, autonomy, and meaningful engagement. In the Indonesian organizational context, Zulfi Salsabila et al. (2024) also found that work motivation can function as a mediating mechanism in explaining work-related outcomes. Although their study focused on employees of PT. PLN (Persero) Malang rather than freelance designers, their findings support the argument that work motivation plays an important role in linking contextual or individual factors with work outcomes.

Because the direct effect of learning agility on personal creativity remains significant while the indirect effect through work motivation is also significant, the mediation is categorized as partial mediation rather than full mediation (Hair et al., 2021). This means that work motivation does not replace the direct influence of learning agility on creativity. Instead, work motivation strengthens the pathway through which learning agility contributes to creative outcomes. In practical terms, freelance designers with high learning agility are more likely to generate creative ideas not only because they can learn and adapt effectively, but also because adaptive learning increases their confidence, persistence, and willingness to continue exploring alternatives despite client revisions, tight deadlines, and uncertain project conditions.

Meanwhile, work motivation does not significantly mediate the relationship between digital literacy and personal creativity; therefore, H4 is rejected. This result indicates that digital literacy does not sufficiently activate the motivational processes required to produce creative outcomes. Although digital literacy may improve designers' ability to use digital tools and platforms, it does not necessarily increase their persistence, creative effort, or willingness to explore new ideas. In the freelance context, motivation may be influenced more strongly by factors such as project deadlines, client expectations, income uncertainty, professional reputation, autonomy, and the need to secure future projects than by digital competencies alone. This interpretation is in line with the selective nature of mediation found by Zulfi Salsabila et al. (2024), who reported that work motivation mediated the effect of work environment on employee performance but did not mediate the effect of job stress on employee performance. Therefore, the insignificant mediation in this study suggests that work motivation does not automatically mediate every relationship, but depends on whether the antecedent variable is strong enough to activate motivational processes.

These findings provide a more critical understanding of creativity in freelance design work. The non-significant role of digital literacy does not imply that digital literacy is unimportant. Rather, it suggests that digital literacy functions as a supporting capability, whereas creativity depends more strongly on adaptive learning and motivational mechanisms. This interpretation is consistent with the f-square results, which show that digital literacy has no meaningful effect on personal creativity, whereas learning agility has a substantial effect on work motivation and work motivation has a substantial effect on personal creativity. According to Hair et al. (2021), f-square values indicate the relative contribution of each predictor to the endogenous construct, and the results of this study demonstrate that learning agility and work motivation contribute more substantially to explaining creativity than digital literacy.

The findings also reflect the unique characteristics of freelance work. Unlike employees in formal organizations, freelance designers operate without stable organizational structures, direct supervision, or standardized career development systems. Their creativity is shaped by self-directed learning, client-based evaluation, market uncertainty, and the ability to remain motivated despite fluctuating workloads and income instability. This contextual characteristic helps explain why learning agility and work motivation emerge as stronger predictors of creativity than digital literacy. In highly dynamic freelance environments, the ability to continuously learn, adapt, and maintain motivation appears to be more critical than merely possessing digital competencies.

From a practical perspective, these findings suggest that efforts to enhance creativity among freelance designers should extend beyond technical digital skill development. Training programs and professional development initiatives should focus on strengthening learning agility, adaptive problem-solving, self-regulation, feedback utilization, and motivational resilience. For stakeholders in the creative industry, fostering environments that encourage continuous learning, autonomy, competence development, and intrinsic motivation may be more effective in enhancing creative performance than focusing exclusively on digital literacy development. Consequently, the main contribution of this study is the identification of learning agility and work motivation as key mechanisms underlying personal creativity among freelance designers, highlighting the importance of adaptive learning and motivational processes in contemporary creative work.

CONCLUSION

This study concludes that learning agility is a more consistent predictor of personal creativity than digital literacy among freelance designers in Malang City. Learning agility has a positive and significant effect on personal creativity, while digital literacy does not show a significant direct effect. This indicates that creativity among freelance designers is shaped more by adaptive learning, feedback utilization, and the ability to respond to changing client demands than by digital competence alone.

Work motivation partially mediates the relationship between learning agility and personal creativity. This means that learning agility improves creativity both directly and indirectly by strengthening designers' motivation to persist, explore alternatives, and complete creative tasks. Meanwhile, work motivation does not mediate the relationship between digital literacy and personal creativity, suggesting that digital skills alone are not sufficient to activate creative motivation.

Practically, freelance designers and creative communities should not focus only on technical digital training, but also on developing learning agility, self-regulation, creative problem-solving, feedback management, and motivational resilience. For creative industry stakeholders in Malang City, these findings imply the need for mentoring programs, portfolio review sessions, peer learning communities, and creativity workshops to strengthen the competitiveness of local freelance designers.

This study is limited to freelance designers in Malang City and uses purposive sampling with self-reported questionnaire data; therefore, the findings should be interpreted within this context. Future research is encouraged to examine freelance designers in other cities or creative sectors, use broader sampling strategies, and combine survey data with client evaluations, portfolio assessments, or interviews. Future studies may also explore psychological mechanisms such as self-efficacy, growth mindset, or work engagement to better explain the relationship between digital literacy and personal creativity.

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