

The Influence of Originality, Elaboration, Flexibility, and Usefulness on Innovation

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Abstract

Individual capacity for innovation is recognized as a strategic and critical factor determining entrepreneurial success, fundamentally rooted in creativity. Creative thinking is supported by four core pillars: Originality (generating unique ideas), Flexibility (shifting conceptual categories), Elaboration (detailing and refining ideas), and Usefulness (ensuring practical utility). The primary objective of this study is to analyze and test the partial and simultaneous influence of Originality, Flexibility, Elaboration, and Usefulness on Innovation capacity. This study employs a quantitative explanatory research approach. Data collection was conducted between July and September 2025 using a sample of 201 alumni from the 2024 Wirausaha Merdeka/Merdeka Entrepreneurship (WMK) program at Universitas Sebelas Maret (UNS). The results indicate that three independent variables—Originality, Flexibility, and Usefulness—were found to have a positive and significant influence on Innovation. Conversely, the Elaboration variable did not demonstrate a significant effect. These findings strongly suggest that entrepreneurial innovation is primarily driven by the ability to create novel ideas, maintain adaptability to change, and ensure the practical benefits of the idea, rather than simply expanding or detailing ideas without adequate implementational support. The findings of this study are expected to contribute to the existing body of knowledge by enriching the creativity-innovation model. Furthermore, the results provide concrete practical implications for the development of curriculum and training modules within the WMK program.

Keywords: creative; entrepreneur; entrepreneurship program; wirausaha merdeka

INTRODUCTION

Innovation stands as a core element of entrepreneurship, serving as a key driver for economic growth, job creation, and organizational competitiveness (Sagar, 2024; Zulfutri & Kamaruddin, 2024). In the highly competitive business landscape, the individual capacity for innovation is paramount, particularly for both established and prospective entrepreneurs (Zulkifli et al., 2023; La'bi & Sababalat, 2024). Furthermore, innovation is frequently regarded as the distinguishing factor between businesses facing stagnation and those achieving sustainability and longevity.

In the global economic landscape characterized by disruptive technological changes and intensifying market competition, innovation is no longer viewed merely as an added advantage but as an absolute prerequisite for the long-term survival and growth of a business. Innovation frequently serves as the primary differentiator between stagnant businesses, which rely solely on outdated models, and sustainable ventures that actively seek novel ways to create value. Stagnant businesses are vulnerable to obsolescence and market share erosion, whereas innovative businesses are capable of generating more efficient products, services, or processes, thereby creating new demand and building difficult-to-imitate competitive advantages (Sewpersadh, 2023). Consequently, the ability of individuals and organizations to consistently innovate has become the single most crucial strategic factor determining entrepreneurial success.

Fundamentally, innovation is deeply rooted in creativity

(Anaktototy, 2023). Although these two concepts are often used interchangeably, the management and psychological literature clearly distinguishes them. Creativity is defined as the mental process of generating ideas or concepts that are novel and valuable (useful/appropriate) (Rahayu et al., 2023), whereas innovation is the successful implementation and adoption of those creative ideas into products, processes, or services, yielding economic or social value (Avriyanti, 2022; Manilang et al., 2024). Therefore, for an entrepreneur, the capacity for creative thinking and generating superior ideas represents the inevitable starting point in the endeavor to achieve sustainable innovation.

Considering the vital role of creativity in generating innovation, the focus of research must be directed toward the specific dimensions that constitute creative thinking ability. Psychometric models of creativity, such as those developed by Guilford (1956), identify three core pillars of thinking ability: Originality (generating unique ideas), Flexibility (shifting conceptual categories of ideas), and Elaboration (detailing and refining ideas).

In the context of entrepreneurship and innovation, these dimensions must be augmented by the aspect of Usefulness (Appropriateness). Even the most original idea cannot be considered an innovation unless it possesses value and effectively solves market problems. Hence, an individual's innovation is a function of the integration of these four dimensions: the capacity to generate unique

(Originality), diverse (Flexibility), detailed (Elaboration), and marketable or practical (Usefulness) ideas. While this framework is theoretically accepted, there remains a dearth of empirical studies that comprehensively compare the relative contributions of each of these dimensions to measurable innovation at the individual level.

Despite the established dimensions of creativity in the literature, an empirical gap still exists in understanding how the combination and individual contribution of creativity dimensions, coupled with the usefulness factor, can simultaneously influence individual innovation. This gap is particularly pronounced in the context of entrepreneurial students who have participated in government-led programs, such as the Wirausaha Merdeka (WMK) program. The WMK program aims to foster future entrepreneurs through direct experience. Consequently, the effectiveness of the WMK program highly depends on the participants' ability to innovate. The lack of detailed understanding regarding the influence of these creativity variables hampers efforts to evaluate and improve the WMK curriculum.

The primary objective of this study is to analyze and test the partial and simultaneous influence of Originality, Elaboration, Flexibility, and Usefulness on innovation, with a specific focus on the alumni of the Wirausaha Merdeka program. The findings of this research are expected to contribute to the existing body of knowledge by enriching the creativity-innovation model. Furthermore, the results provide concrete practical

implications for the development of curriculum and training modules within the WMK program.

METHOD

This study adopted a quantitative research approach with an explanatory design. The quantitative approach was selected as the analyzed data are numerical, acquired through rigorous measurement instruments, and statistical analysis is employed to test hypotheses regarding the causal relationship among variables. The specific causal research design utilized aims to analyze how the independent variables (Originality, Elaboration, Flexibility, and Usefulness) affect the dependent variable (Individual Innovation) both separately (partially) and collectively (simultaneously).

Data collection for this study was conducted from July to September 2025. The population of study consisted of alumni from the 2024 Wirausaha Merdeka (WMK) program at Universitas Sebelas Maret. A total of 201 individuals constituted the final sample size with random sampling technique. The research instruments comprised five main variables: Originality, Elaboration, Flexibility, Usefulness, and Innovation. Validity and reliability testing for all instruments were performed using the IBM SPSS Statistics software, Version 25.

The primary statistical technique employed for hypothesis testing was Multiple Linear Regression Analysis. This method was utilized to determine the causal relationship between the four independent variables (Originality, Elaboration, Flexibility, and Usefulness) and the dependent variable (Individual Innovation).

RESULT AND DISCUSSION

Instrument Validity and Reliability Testing

Table 1. Instrument validity and reliability test results

No	Variable	Statement Items	Item-Total Correlation	Validity	Cronbach's Alpha	Reliability
1	Originality (X1)	CIS1	0,901	Valid	0,785	Reliable
		CIS2	0,911	Valid		
		CIS3	0,704	Valid		
2	Elaboration (X2)	CIS4	0,862	Valid	0,695	Quite reliable
		CIS5	0,890	Valid		
3	Flexibility (X3)	CIS6	0,876	Valid	0,651	Quite reliable
		CIS7	0,847	Valid		
4	Usefulness (X4)	CIS8	0,921	Valid	0,836	Reliable
		CIS9	0,934	Valid		
5	Innovation (Y)	CIS10	0,849	Valid	0,806	Reliable
		CIS11	0,883	Valid		
		CIS12	0,816	Valid		

The validity and reliability of the research instrument were assessed using SPSS version 25.0. The results of the validity and reliability tests are presented in Table 1. Based on the presented table, all items across the five variables exhibited a correlation coefficient exceeding the critical r-table value (0.138) and were statistically significant at the 99% confidence level ($p < 0,01$). This outcome demonstrates that every item possesses adequate validity, signifying that all question items effectively represent the latent construct (variable) they are intended to measure.

Regarding reliability, all variables yielded a Cronbach's Alpha ≥ 0.6 , indicating that the entire instrument possesses a satisfactory to high level of internal consistency. The variable with the highest reliability was Usefulness (0.836), while the lowest reliability was observed in Flexibility (0.651). Nonetheless, all computed alpha values fall within the acceptable range for empirical research. Collectively, the research instrument utilized in this study is considered valid and reliable, making

it appropriate for the measurement of the five specified variables: Originality, Elaboration, Flexibility, Usefulness, and Innovativeness. The robust confirmation of instrument validity and reliability is crucial for mitigating potential errors in subsequent data analysis and conclusion drawing (Azizah & Chalimatusadiah, 2025). Therefore, assessing validity and reliability is an essential prerequisite prior to the deployment of any research instrument.

Regression Testing

Multiple linear regression analysis was conducted to examine the extent to which the independent variables—specifically Originality (X1), Elaboration (X2), Flexibility (X3), and Usefulness (X4)—collectively and partially influence the dependent variable, Innovativeness (Y). This analysis aims to ascertain the individual contribution of each predictor variable (X variables) to the level of innovativeness, and simultaneously to identify the proportion of variance in innovativeness that can be accounted

for by the combined effect of these four variables. The results of the regression analysis, as presented in Table 2, yielded the following test outcomes:

Model Feasibility

The regression test results were utilized to assess the overall suitability of the regression model (F-test), determining whether all independent variables collectively exert a statistically significant influence on the dependent variable. The results of the F-test, presented in Table 2, yielded an F-statistic of 61.469 with an associated significance level (p-value) of 0.000. This p-value is substantially lower than the established level of 0.05.

This highly minute p-value (Sig < 0.05) indicates that the constructed regression model is statistically significant simultaneously (jointly). Specifically, the combined set of independent variables—Originality, Elaboration, Flexibility, and Usefulness—exerts a meaningful influence on Innovativeness. In

essence, these four predictor variables collectively account for the observed variation in the dependent variable with a high degree of reliability.

This finding suggests that innovativeness is not merely determined by a single dimension of creative thinking ability, but rather emerges as a consequence of the interplay and simultaneous contribution of these four distinct aspects. Given the robust statistical significance, the regression model is deemed acceptable (fit) for analytical purposes, as it successfully establishes a significant relationship between the predictors and the outcome variable. Consequently, it is concluded that the multiple linear regression model employed in this study satisfies the criteria for model adequacy. Therefore, it is appropriate for explaining and predicting the influence of Originality, Elaboration, Flexibility, and Usefulness on Innovativeness with enhanced accuracy

Table 2. Results of the regression analysis on the influence of originality, elaboration, flexibility, and usefulness on innovativeness

No	Independent Variable	Regression Correlation (B)	t value	Sig. (p)	Statement of Influence	Conclusion
1.	Originality (X1)	0.343	4.890	0.000	Positive and significant	Significantly influence Innovativeness
2.	Elaboration (X2)	0.172	1.867	0.063	Positive but not significant	Not statistically significant
3.	Flexibility (X3)	0.312	3.477	0.001	Positive and significant	Significantly influence Innovativeness
4.	Usefulness (X4)	0.417	4.152	0.000	Positive and significant	Significantly influence Innovativeness
R = 0.746						
R ² = 0.556						
Adjusted R ² = 0.547						
F value = 61.469						
Sig. F = 0.000						
Regression model:						
$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$						
$Y = a + 0.343X_1 + 0.172X_2 + 0.312X_3 + 0.417X_4 + e$						

Based on the derived regression equation, the following explanation can be provided:

The regression coefficient (the numerical value preceding each X variable) indicates the magnitude of the change induced in the dependent variable, Innovativeness (Y), resulting from a one-unit change in the corresponding independent variable. This interpretation is contingent upon the assumption that the influence of all other independent variables in the model is held constant (*ceteris paribus*).

1) Originality (X1): Coefficient

Each one-unit increase in the Originality variable will lead to an increase in the Innovativeness variable by 0.343 units, assuming that Elaboration, Flexibility, and Usefulness are held constant. Given that the value of this coefficient is positive, the relationship between

Originality and Innovativeness is unidirectional (positive).

2) Elaboration (X2): Coefficient

Each one-unit increase in the Elaboration variable is projected to result in an increase in the Innovativeness variable by 0.172 units, assuming that Originality, Flexibility, and Usefulness are held constant. However, this coefficient is the smallest among all predictor variables, indicating the weakest partial influence. Furthermore, in the preceding t-test (with a Sig. value of 1.867), this coefficient was also determined to be not statistically significant at the 0.063 significance level.

3) Flexibility (X3): Coefficient

Each one-unit increment in the Flexibility variable is projected to result in an increase in the Innovativeness variable by 0.312 units, assuming that Originality,

Elaboration, and Usefulness are held constant.

4) Usefulness (X4): Coefficient

Each one-unit increment in the Usefulness variable is projected to result in an increase in the Innovativeness variable by 0.417 units, assuming that Originality, Elaboration, and Flexibility are held constant. Significantly, this coefficient is the largest within the regression equation, indicating that the Usefulness variable exerts the most dominant partial influence in predicting or explaining the increase in Innovativeness compared to the other variables included in this model.

This equation demonstrates that the Innovativeness variable is positively influenced by all four dimensions of creativity: Originality, Elaboration, Flexibility, and Usefulness. Specifically, the Usefulness variable exhibits the largest contribution, whereas Elaboration shows the smallest contribution and was statistically deemed not significant in partially predicting Innovativeness.

Coefficient of Determination (R^2)

Based on the analysis results presented in the Model Summary table, the following values were obtained: $R = 0.746$, $R^2 = 0.556$, and Adjusted $R^2 = 0.547$. These three statistics provide crucial insight into the strength of the relationship between the variables, as well as the explanatory power of the regression model in accounting for the variation observed in the dependent variable, Innovativeness (Y). In more detail, the findings are elaborated below:

Coefficient of Correlation ($R = 0.746$)

The R value quantifies the degree of linear relationship between the entire set of independent variables (Originality, Elaboration, Flexibility, and Usefulness) and the dependent variable (Innovativeness). The observed value of $R = 0.746$ indicates a strong and positive correlation, implying that an increase in one or more of the independent variables tends to be concurrently followed by an enhancement in the level of innovativeness.

Coefficient of Determination ($R^2 = 0.556$)

The R^2 value represents the proportion of variance in the dependent variable that can be statistically explained by the entire set of independent variables within the model. A value of $R^2 = 0.556$ indicates that 55.6% of the total variance observed in Innovativeness can be simultaneously accounted for by Originality, Elaboration, Flexibility, and Usefulness. Consequently, the remaining 44.4% of the variance is attributed to residual factors or omitted variables not included in this regression model, such as (but not limited to) factors like the work environment, organizational support, leadership styles, or specific personality traits that were not investigated in this study.

Adjusted R Square (0.547)

The Adjusted R Square value is employed to adjust the R^2 value based on the number of independent variables and the sample size. This adjustment is crucial because the addition of any predictor variable to the model tends to inflate the R^2 even if that variable is not statistically significant. With an Adjusted R^2 value

of 0.547, it can be concluded that, after factoring in the number of variables in the model, the predictive capacity of the regression model remains stable and acceptably high. This value provides a more conservative and reliable estimate of the model's explanatory power in the population.

The combined results of these statistics demonstrate that the multiple regression model possesses a good capability in accounting for the variance observed in the dependent variable. With a coefficient of determination exceeding 50%, the model can be categorized as having moderate to strong explanatory power. Therefore, the model is deemed appropriate for explaining the relationship between the dimensions of creative thinking ability (Originality, Elaboration, Flexibility, and Usefulness) and the level of Innovativeness.

Dominant Factor

The most dominant factor influencing the Innovativeness variable, based on the generated regression equation, is Usefulness (X4). This dominance is evidenced by the partial regression coefficient for Usefulness, which reaches 0.417. This value is the highest when compared to the coefficients of the other independent variables (Originality: 0.343; Elaboration: 0.172; and Flexibility: 0.312). Statistically, the highest coefficient value indicates that each one-unit increment in the Usefulness aspect will generate the largest magnitude of increase in the Innovativeness variable, assuming all other creativity factors are held constant. Furthermore, Usefulness also

exhibits a very high level of statistical significance (Sig. 0.000), validating that its influence on Innovativeness is not only strong in terms of magnitude but also highly significant statistically. This finding implies that in the process of generating innovation, ideas possessing high application value, practical benefits, and utility constitute the primary determinant of success in being categorized as Innovative, even surpassing the factors of Originality and Flexibility. Consequently, if the primary objective is the enhancement of Innovativeness, strategic focus must be placed on developing the Usefulness aspect of the idea.

Partial Significance Test

The partial significance test (t-test) is utilized to ascertain the extent to which each independent variable—specifically Originality (X1), Elaboration (X2), Flexibility (X3), and Usefulness (X4)—individually influences the dependent variable, Innovativeness (Y). This test is crucial for isolating the specific contribution of each dimension of creative thinking ability to the level of innovativeness, after controlling for the effects of all other variables incorporated within the model. The partial test is conducted by comparing the significance value (p-value) associated with each variable against the predetermined level of significance, $\alpha = 0.05$. If the p-value is less than 0.05 ($p < 0.05$), the corresponding variable is deemed to have a statistically significant influence on Innovativeness; conversely, if the p-value is greater than 0.05 ($p > 0.05$), the influence is considered not statistically significant.

Simultaneous Hypothesis Testing

Simultaneous hypothesis testing (the F-test) represents a crucial step in multiple regression analysis, serving to determine whether all independent variables under investigation—namely Originality, Elaboration, Flexibility, and Usefulness—collectively or jointly exert a statistically significant influence on the dependent variable, Innovativeness. The results of this test are presented in Table 2. Based on the output, the calculated F-statistic is 61.469 with an associated Significance value (Sig.) of 0.000. By comparing the Sig value of 0.000 with the threshold significance level of $\alpha = 0.05$, where the former is substantially smaller than the latter ($0.000 < 0.05$), the statistical decision is to reject the null hypothesis (H_0). This rejection leads to the conclusion that the regression model is deemed acceptable (fit) for use, as the combined set of variables (Originality, Elaboration, Flexibility, and Usefulness) is proven to have a significant influence on Innovativeness simultaneously. This firmly substantiates that the overall model, encompassing these four dimensions of creativity, is valid and effective in explaining the variation observed in the level of Innovativeness.

The findings derived from the regression results are as follows:

The Influence of Originality on Innovativeness (H1)

The regression coefficient for the Originality (X_1) variable was found to be 0.343, with a calculated t -statistic of 4.890 and a significance level (p -value) of 0.000 (< 0.05). This result confirms that Originality has a positive and statistically significant influence

on Innovativeness, thereby leading to the acceptance of Hypothesis H1. Substantially, this finding suggests that a higher level of individual originality—defined as the capability to generate ideas that are novel, unique, and divergent from conventional norms—is associated with a higher propensity for innovation. Originality acts as the primary source for the creation of creative ideas that can be developed into tangible innovations. This aligns with the perspective of Schubert (2021), who asserts that “Creativity leads to a novel and useful outcome,” emphasizing that idea novelty is an essential element in the innovative process. Thus, original thinking is concluded to be a fundamental foundation for generating valuable innovation.

Conceptually, originality is considered the core essence of creativity—the ability to produce unique, unusual, and non-conformist ideas. These original ideas serve as the cognitive input that drives innovation, as meaningful change in organizational practices cannot emerge without novelty. Consequently, originality functions as a strategic differentiator for both individuals and organizations, enabling them to create competitive advantage through innovation.

This finding is consistent with prior research by Ivancovsky et al. (2024), who maintain that novelty seeking is a critical driver of the creative dimension that leads to meaningful innovation. Furthermore, Brem and Puente-Díaz (2020) explain that high-originality creativity contributes directly to innovation sustainability because new ideas are

capable of creating opportunities for exploration and value-added development. In conclusion, these results affirm that originality is a primary prerequisite for innovation, not only by generating new ideas but also by establishing new directions in thought and action that form the basis for developing innovative solutions. Modern organizations must therefore foster a work culture that rewards novelty and courage in divergent thinking as the cornerstone of sustainable innovation.

The Influence of Elaboration on Innovativeness (H2)

The regression coefficient for the Elaboration (X2) variable was found to be 0.172, with a calculated t-statistic of 1.867 and an associated significance level (p-value) of 0.063 (> 0.05). The p-value, being greater than the alpha-level of 0.05, indicates that Hypothesis H2 is rejected; consequently, Elaboration does not exert a statistically significant influence on Innovativeness. Elaboration is defined as the capability to expand, develop, or detail ideas to render them more mature and applicable (Guilford, 1956). However, the current finding suggests that this specific ability is insufficiently robust to directly drive innovation. This implies that elaboration tends to function as a supportive mechanism that only becomes effective when supported by an organizational environment that encourages idea exploration and tangible implementation. This result is consistent with the findings of Alfarisa et al. (2025), who emphasize that the success of the elaboration process is highly dependent on organizational

support, resources, and a conducive innovative culture.

Potočnik et al. (2022), affirm that the relationship between creativity and innovation often operates under paradoxical conditions—especially at the elaboration stage—because complex ideas require effective management and selection systems to be realized. Corroborating this, Hattori et al. (2023), highlight that the effectiveness of elaboration is critically determined by the instruction, context, and feedback provided throughout the creative process. This finding is further strengthened by Briguglio et al. (2022), who state that the elaboration of ideas tends to result in significant innovation only when it is underpinned by a collaborative work environment and an open trial and feedback system. Thus, the results of this study indicate that although elaboration exhibits a positive directional influence, it is unable to serve as a primary determinant of innovation without the support of an adaptive organizational context and reinforcing mechanisms for idea implementation.

The Influence of Flexibility on Innovativeness (H3)

The regression results demonstrate that the Flexibility (X3) variable possesses a coefficient of 0.312, with a calculated t-statistic of 3.477 and a significance level of 0.001 (< 0.05). Accordingly, Hypothesis H3 is accepted, indicating that Flexibility exerts a positive and statistically significant influence on Innovativeness. Flexibility in this context refers to the capacity of an individual or organization to adapt to change, to maintain open-mindedness toward new alternatives, and to adjust

strategies in line with environmental dynamics. In an era characterized by high disruption and uncertainty, flexibility emerges as a key enabling factor that allows the innovative process to proceed continuously.

Research by Jiang et al. (2023), indicates that the implementation of flexible work arrangements encourages the emergence of innovative behavior by enhancing an individual's sense of autonomy and responsibility. Similarly, Zhao & Yan (2023), suggest that strategic flexibility strengthens the link between organizational learning and sustainable digital innovation in the industrial sector. Furthermore, Agostini et al. (2023), writing in *Management Decision*, confirm that structural and strategic flexibility are fundamental factors for successful innovation within high-risk and rapidly changing environments. Thus, it can be concluded that flexibility acts as a catalyst for innovation, as it enables the organization to adapt its resources, processes, and strategies to respond creatively to new opportunities and challenges.

The Influence of Usefulness on Innovativeness (H4)

The regression analysis indicates that the Usefulness (X4) variable has a coefficient of 0.417, with a calculated t-statistic of 4.152 and a significance level of 0.000 (<0.05). Consequently, Hypothesis H4 is accepted, meaning that Usefulness exerts a positive and statistically significant influence on Innovativeness. Usefulness refers to the extent to which an idea is evaluated as beneficial and possessing the potential for practical application. Ideas deemed useful tend to foster

commitment from individuals or organizations toward their implementation, as they are perceived to hold added value and tangible benefits for the user or the work environment.

Research by Hattori et al. (2023), found that the consideration of the usefulness aspect is a critical factor in evaluating creativity and determining whether an idea will be implemented. Furthermore, Sya'roni & Sudirham (2012), affirm that the dimensions of novelty and usefulness constitute the two main pillars for generating successful innovation; novelty creates new ideas, while usefulness ensures valuable implementation. The study by López-Paredes et al. (2025), also indicates that ideas or innovations assessed as useful contribute significantly to enhanced company performance, particularly in developing regions, by creating greater economic and social value. Thus, usefulness serves as the bridge between creativity and innovation. Creativity without usefulness merely produces appealing yet un-applicable ideas, while sustainable innovation is born from ideas that are not only new but also deliver concrete practical benefits.

The Collective and Simultaneous Influence of Originality, Elaboration, Flexibility, and Usefulness on Innovativeness (H5)

The results of the simultaneous hypothesis test (F-test) demonstrate that the measured dimensions of creativity—namely Originality, Elaboration, Flexibility, and Usefulness—collectively and jointly exert a statistically significant influence on the Innovativeness variable. This conclusion is supported

by the resulting Significance value (Sig. of 0.000), which is substantially less than the alpha-level threshold. This finding confirms that the regression model is valid and suitable for predicting Innovativeness, and it empirically supports the core theoretical framework that creativity is an absolute prerequisite for innovation. Specifically, this outcome is highly consistent with the view that innovation is the product of successful divergent thinking (Rawlings et al., 2025).

The simultaneous significance reflects that even though the partial influence of individual dimensions may vary (e.g., Elaboration was not partially significant), the combined contribution of all four dimensions is critically important. Recent literature, particularly in the era of digital transformation, increasingly emphasizes that successful innovation necessitates a combination of diverse abilities. A study on Digital Transformation and Flexible Performance Management reinforces the view that adaptive and flexible systems and practices—as represented by the current variables—are essential for fostering organizational innovation and competitiveness (Cosa & Torelli, 2024).

Furthermore, post-2020 research also supports the urgency of Usefulness (utility) in the creative process leading to innovation. While ideas must be novel (Originality) and diverse (Flexibility), only those possessing practical value and applicability will successfully materialize as innovation. This utility factor ensures that the outcome of creativity genuinely contributes to performance and adaptability. These

results indicate that to generate Innovativeness, the research subjects cannot solely focus on novelty but must simultaneously integrate practical value and usefulness alongside the aspects of Originality and Flexibility.

CONCLUSION

Out of the four independent variables tested, three variables—Originality, Flexibility, and Usefulness—were found to exert a positive and statistically significant influence on Innovativeness, while Elaboration did not show a significant influence. This finding affirms that the success of innovation is predominantly determined by the ability to generate novel ideas, to be adaptive to change, and to ensure the tangible usefulness of the idea, rather than merely expanding or detailing the idea without adequate implementative support.

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REFERENCES

- Agostini, L., Nosella, A., Sarala, R., & Nkeng, C. (2023). Emerging trends around strategic flexibility: a systematic review supported by bibliometric techniques. *Management Decision*, 62(13), 46–92. <https://doi.org/10.1108/MD-02-2023-0135>
- Alfarisa, F., Arisetyawan, A., Maulana, F. R., Lathifah, N. Y., Afriani, S., & Mashudi, M. (2025). Creative thinking in elementary education: Reliable assessment instruments for science and social studies. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 29(1), 13–25. <https://doi.org/10.21831/pep.v29i1.79429>
- Anaktototy, K. (2023). Promoting creativity and innovation in the teaching and learning process. *Edu Sciences J*, 4(1), 59–66.
- Avriyanti, S. (2022). Pengaruh inovasi produk dan teknologi informasi terhadap perkembangan usaha (Studi pada UMKM bidang kuliner di Kabupaten Tabalong). *Jurnal PubBis*, 6(1), 2022. <https://doi.org/10.35722/pubbis.v6i1.582>
- Azizah, N., & Chalimatusadiah. (2025). Uji validitas dan uji reliabilitas instrumen penelitian pemahaman konsep dasar aljabar. *Jurnal Pendidikan Tambusai*, 9(1), 6637–6643.
- Briguglio, M., Baldacchino, L., & Mangion, M. (2022). Assessing creativity in secondary schools: A focus on the impact of an arts-based intervention. *Journal of Creative Behavior*, 56(4), 501–520. <https://doi.org/10.1002/jocb.543>
- Cosa, M., & Torelli, R. (2024). Digital transformation and flexible performance management: A systematic literature review of the evolution of performance measurement systems. *Global Journal of Flexible Systems Management*, 25(3), 445–466. <https://doi.org/10.1007/s40171-024-00409-9>
- Guilford, J. P. (1956). The structure of intellect. *Psychological Bulletin*, 53(4), 267–293.
- Hattori, E. A., Yamakawa, M., & Miwa, K. (2023). Usefulness consideration in creativity evaluation: The interaction of evaluators' novelty-seeking and instruction. *Cognitive Studies: Bulletin of the Japanese Cognitive Science Society*, 30(3), 245–254. <https://doi.org/https://doi.org/10.11225/cs.2023.029>
- Ivancovsky, T., Baror, S., & Bar, M. (2024). A shared novelty-seeking basis for creativity and curiosity. *Behavioral and Brain Sciences*, 47, 1–76. <https://doi.org/10.1017/S0140525X23002807>
- Jiang, L., Pan, Z., Luo, Y., Guo, Z., & Kou, D. (2023). More flexible and more innovative: the impact of flexible work arrangements on the innovation behavior of knowledge employees. *Frontiers in Psychology*, 14, 1–11. <https://doi.org/10.3389/fpsyg.2023.1053242>

- La'bi, A. T., & Sababalat, L. (2024). Mengasah kecakapan berwirausaha: Strategi dan keterampilan yang diperlukan untuk sukses. *Nian Tana Sikka: Jurnal Ilmiah Mahasiswa*, 3(1), 71–81.
<https://doi.org/10.59603/niantanasikka.v3i1.600>
- López-Paredes, H., Yagüe-Perales, R. M., & March-Chorda, I. (2025). Exploring the impact of innovation on company performance in regions of intermediate development. *Journal of Innovation and Entrepreneurship*, 14(1), 1–26.
<https://doi.org/10.1186/s13731-025-00567-9>
- Manilang, E., Desi, E. N., & Belo, Y. (2024). Inovasi dan kreativitas: Pilar utama dalam kewirausahaan. *Nian Tana Sikka: Jurnal Ilmiah Mahasiswa*, 3(1), 82–92.
<https://doi.org/10.59603/niantanasikka.v3i1.609>
- Potočnik, K., Verwaeren, B., & Nijstad, B. (2022). Tensions and paradoxes in creativity and innovation. *Journal of Work and Organizational Psychology*, 38(3), 149–163.
<https://doi.org/10.5093/jwop2022a19>
- Rahayu, N., Saniyya, P. H., Nunlehu, M., Madi, M. S., & Khalid, N. (2023). Kreatifitas dan inovasi pembelajaran dalam pengembangan kreatifitas melalui imajinasi, musik, dan bahasa. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 4(1), 89–96.
<http://jurnaledukasia.org>
- Rawlings, B. S., Chetwynd-Talbot, D., Husband, E., Nuttall, A., Quinn, E., Taggart, R., & Roome, H. E. (2025). Divergent thinking is linked with convergent thinking; implications for models of creativity. *Thinking and Reasoning*, 31(4), 586–608.
<https://doi.org/10.1080/13546783.2025.2485059>
- Sagar, S. (2024). Entrepreneurship: Catalyst for Innovation and economic growth. *International Journal of Innovative Science and Research Technology*, 9(1), 81–92.
<https://doi.org/10.5281/zenodo.10494931>
- Schubert, E. (2021). Creativity is optimal novelty and maximal positive affect: A new definition based on the spreading activation model. *Frontiers in Neuroscience*, 15(May), 1–15.
<https://doi.org/10.3389/fnins.2021.612379>
- Sewpersadh, N. S. (2023). Disruptive business value models in the digital era. *Journal of Innovation and Entrepreneurship*, 12(1), 1–27.
<https://doi.org/10.1186/s13731-022-00252-1>
- Sya'roni, D. A. W., & Sudirham, J. J. (2012). Kreativitas dan inovasi penentu kompetensi pelaku usaha kecil. *Jurnal Manajemen Teknologi*, 11(1), 42–59.
- Zhao, Z., & Yan, Y. (2023). The role of organizational unlearning in manufacturing firms' sustainable digital innovation: The mechanism of strategic

- flexibility and organizational slack. *Sustainability*, 15(13), 1–23. <https://doi.org/10.3390/su151310371>
- Zulfitri, & Kamaruddin, S. A. (2024). Kewirausahaan sebagai pendorong fundamental pertumbuhan ekonomi. *Pinisi Journal of Art, Humanity & Social Studies*, 4(3), 378–385.
- <http://creativecommons.org/licenses/by/4.0/>
- Zulkifli, Sugiarto, I., Fithriah, N., Rukmana, A. Y., & Hastuti, P. (2023). Kesuksesan wirausaha di era digital dari perspektif orientasi kewirausahaan (study literature). *Sanskara Ekonomi Dan Kewirausahaan*, 01(02), 81–96.