Quantitative Economics and Management Studies (QEMS) *ISSN: 2722-6247 (online)*
Vol. 6 No. 4 (2025)
https://doi.org/10.35877/454RI.qems4108

Talent Development Strategies to Enhance Entrepreneurial Orientation among Creative Digital Industry Actors in the Megamas Area of Manado

Jenny Nancy Kaligis*, Joulanda Altje Meiske Rawis, Steven Set Xaverius Tumbelaka

Univeristas Negeri Manado, Jl. Kampus Unima, Tonsaru Kec. Tondano Sel, Kabupaten Minahasa, Sulawesi Utara 95618

Abstract

This study investigates the impact of talent development strategies on entrepreneurial orientation among actors in the digital creative industry in the Megamas area of Manado, Indonesia. Utilizing a quantitative associative approach, the research analyzes how structured talent initiatives influence entrepreneurial behavior directly and indirectly through digital competence as a mediating variable. Data were collected from 75 digital creative entrepreneurs using a validated Likert-scale questionnaire and analyzed using path analysis with SPSS version 26. The findings reveal that talent development significantly and positively affects both digital competence ($\beta = 0.512$, $p < 0.001$) and entrepreneurial orientation ($\beta = 0.308$, $p < 0.01$). Furthermore, digital competence also has a significant positive effect on entrepreneurial orientation ($\beta = 0.476$, $p < 0.01$), confirming its mediating role. The total effect of talent development on entrepreneurial orientation is strengthened through digital competence, yielding a combined influence of 0.552. These results underscore the importance of aligning talent development programs with efforts to improve digital readiness among creative entrepreneurs. The study contributes to the growing literature on digital entrepreneurship by highlighting the dual impact of talent strategies enhancing both technical and behavioral capabilities. It also provides practical implications for policymakers and stakeholders aiming to empower creative digital MSMEs in emerging markets. In particular, integrating digital skills training with entrepreneurial learning may offer a more comprehensive approach to boosting innovation, risk-taking, and market responsiveness in the creative industry. Future research may explore comparative studies across different urban creative hubs to deepen understanding of regional dynamics in talent-driven entrepreneurship.

Keywords: Talent Development; Digital Competence; Entrepreneurial Orientation; Creative Industry; Path Analysis; Digital Entrepreneurship

Received: 6 July 2025 Revised: 13 August 2025 Accepted: 26 August 2025

1. Introduction

The emergence of the digital economy has fundamentally transformed the landscape of the creative industry, particularly in terms of the need for adaptive, innovative, and entrepreneurially oriented human resources. The digital creative industry no longer emphasizes solely on production and aesthetics but now demands talent development strategies that can enhance both individual and organizational competitiveness. Globally, talent development is recognized as a critical component in building a sustainable innovation-based creative economy ecosystem (Chatterjee et al., 2022; Rana et al., 2023).In Indonesia, the contribution of the creative industry sector to national GDP has become increasingly significant, especially in digital subsectors such as graphic design, animation, app development, and digital marketing. However, one of the major challenges faced by this sector is the disparity in human resource capabilities, particularly due to the lack of systematic and measurable talent development strategies (BPS, 2023; Ministry of Tourism and Creative Economy, 2022). This has direct implications on the weak entrepreneurial orientation among creative actors, such as low innovation capacity, risk aversion, and limited ability to seize digital market opportunities (Lukito & Prabowo, 2020).

The Megamas Area in Manado has emerged as a hub for business and digital creative activities in North Sulawesi, with a growing number of young entrepreneurs, startups, and digital MSMEs. However, not all these actors have access to structured talent development programs such as digital competency training, mentoring, and entrepreneurship incubation (Pangemanan & Katuuk, 2021). This condition highlights a gap between market potential and human

* Corresponding author.
E-mail address: jennykaligis@unima.ac.id

resource readiness, which could hinder the overall improvement of entrepreneurial orientation.Previous studies have emphasized the importance of the relationship between talent development and entrepreneurial orientation, but most have focused on large-scale industries or high-tech sectors (Obeidat et al., 2016; Abbas et al., 2021). Few have specifically addressed the digital creative industry context in developing regions such as Manado. Therefore, this study is essential to explore how talent development strategies can be effectively implemented among digital creative industry players in the Megamas Area of Manado to enhance their entrepreneurial orientation.

In the global knowledge economy, talent has become a critical driver of innovation and competitiveness, especially within the creative digital industry. The rapid pace of technological disruption demands that human capital in this sector possess not only technical proficiency but also entrepreneurial capabilities. According to Collings et al. (2019), talent development must be approached as a strategic imperative, integrated with organizational goals to foster a culture of agility, innovation, and continuous learning. This integration is especially vital in creative settings, where the boundary between artistic expression and commercial value is often fluid.

The transition toward a digital-first economy has redefined the skill sets required to succeed in creative industries, prompting organizations to prioritize the development of digitally competent and entrepreneurially inclined talent. As observed by Obschonka and Stuetzer (2017), regions that nurture entrepreneurial psychological capital such as proactivity, innovativeness, and risk-taking tend to produce more sustainable creative ventures. Therefore, talent development strategies must move beyond technical skills to encompass psychological and behavioral aspects that fuel entrepreneurial orientation in dynamic digital markets.

Furthermore, the capacity of creative workers to collaborate across disciplines and leverage digital platforms is a major determinant of competitive advantage. A study by Rezaei-Zadeh et al. (2017) underscores that entrepreneurial learning—facilitated through mentoring, reflective practices, and real-time experimentation plays a vital role in strengthening entrepreneurial orientation, especially within startups and SMEs. Embedding such learning mechanisms into talent development frameworks enables continuous adaptation in the face of digital disruption, which is crucial for actors operating in rapidly evolving creative environments such as Manado.

Moreover, the digitalization of entrepreneurship has significantly influenced how creative industries operate, pushing them to adopt digital platforms and data-driven approaches in both production and marketing. As emphasized by Marzi et al. (2021), digital transformation provides fertile ground for entrepreneurial orientation, but its success is contingent upon the ability of human resources to adapt to digital tools and frameworks. In this regard, talent development becomes a bridge that links digital competence with entrepreneurial performance, particularly in emerging markets where infrastructure may still be evolving.There is also growing evidence that talent development strategies aligned with digital entrepreneurship models can improve innovation outcomes in SMEs and creative startups. For instance, a study by Muriithi (2017) highlights that capacity-building programs, mentoring, and skills-focused training have a positive effect on entrepreneurial intentions and behavior, especially among young digital entrepreneurs in sub-Saharan Africa. This finding underscores the universal relevance of structured talent development, even in varied socio-economic contexts such as Southeast Asia.

In addition, the creative industry thrives on collaboration, interdisciplinary knowledge, and creative problem-solving, all of which are greatly enhanced through continuous talent cultivation. As found by Eisingerich et al. (2016), firms that invest in strategic employee development tend to outperform their peers in entrepreneurial innovation, especially when their employees are encouraged to experiment, fail, and learn iteratively. This aligns with the creative process, where risk-taking and proactive opportunity recognition are key aspects of entrepreneurial orientation.Lastly, it is important to consider the role of local ecosystems and urban clusters, such as the Megamas area of Manado, in supporting talent development. According to Florida and Mellander (2016), urban creative hubs that facilitate interaction among designers, tech innovators, and entrepreneurs tend to generate stronger entrepreneurial ecosystems. These ecosystems not only support skill development but also provide essential exposure to market dynamics and collaborative networks that are critical for developing entrepreneurial orientation in the digital age.

Based on the aforementioned background, this research aims to analyze relevant and impactful talent development strategies to improve entrepreneurial orientation, considering local characteristics and the challenges of the digital industry in Manado. The findings of this study are expected to contribute both theoretically and practically to local creative economy development policies and to strengthen the human resource foundation in this strategic sector.Lastly, fostering a culture of innovation requires an enabling ecosystem that supports not only individual learning but also institutional learning. As argued by Heisig et al. (2016), organizational learning systems that integrate talent development with knowledge management initiatives are more likely to generate innovation and entrepreneurial behaviors. In the context of urban creative centers like the Megamas area, such integrated systems can accelerate

entrepreneurial growth by linking creative human capital with digital infrastructure, collaborative networks, and strategic mentorship

2. Methods

This study employs a quantitative associative approach aimed at analyzing the influence of talent development strategies on entrepreneurial orientation among digital creative industry actors in the Megamas area of Manado. This approach is selected as it enables the examination of causal relationships between measurable variables through statistical analysis. The primary focus of this research is to investigate both direct and indirect effects of talent development variables through simultaneous causal paths. The quantitative method ensures a high level of objectivity and offers replicable procedures for similar studies in the future.

The research method used is a survey, with data collected through a closed-ended questionnaire using a five-point Likert scale. The questionnaire is constructed based on validated indicators from previous studies and adapted to the local context of digital creative entrepreneurs. The five-point Likert scale is chosen for its ability to capture varying degrees of respondent agreement. Data collection is conducted directly from digital creative entrepreneurs operating in the Megamas area, including businesses in design, digital marketing, application development, content creation, and related fields.The population in this study includes all digital creative industry actors actively operating in the Megamas area of Manado. The sampling technique used is purposive sampling, where respondents are selected based on specific criteria: (1) operating their businesses for at least one year, (2) utilizing digital technology in business operations, and (3) having participated in talent development or business training programs. The sample size is determined based on the minimum requirement of five times the number of indicators in the model, resulting in 75 respondents who met the inclusion criteria. Questionnaire distribution and data collection were conducted over a two-week period.

The research instrument consists of three main variables: (1) Talent Development (TD) as the independent variable, which includes digital training, mentoring, and knowledge sharing; (2) Digital Competence (DC) as the intervening variable, representing the ability of entrepreneurs to effectively utilize digital technologies; and (3) Entrepreneurial Orientation (EO) as the dependent variable, measured through dimensions of innovation, proactiveness, and risk-taking. Each variable is measured through multiple items developed from the literature and adjusted to the local characteristics of creative entrepreneurs in Manado.The data analysis technique used in this study is path analysis. This technique is employed to assess both direct and indirect effects between independent and dependent variables, while also identifying potential mediation effects of the intervening variable. Path analysis allows researchers to construct a causal model and quantify the strength and direction of relationships among variables. Prior to conducting path analysis, instrument validity and reliability tests are performed, along with classical assumption tests including normality, multicollinearity, and heteroscedasticity checks.

Data processing is conducted using SPSS version 26. Hypothesis testing is carried out at a 95% confidence level ($\alpha = 0.05$), with decision-making criteria based on p-values and standardized beta coefficients (β). The results of the path analysis will indicate whether talent development has a direct impact on entrepreneurial orientation, as well as whether digital competence serves as a mediating variable. The findings will be presented in the form of a path diagram, coefficient tables, and a discussion supported by relevant literature and the empirical realities observed in the field.This model assumes that talent development strategies (such as training, mentoring, and knowledge sharing) can directly and indirectly enhance entrepreneurial orientation. The indirect path occurs through the improvement of digital competence, which acts as a mediator. In other words, entrepreneurs who have access to structured talent development programs are more likely to develop strong digital skills, which in turn enable them to become more innovative, proactive, and risk-taking in running digital-based creative businesses.The hypotheses proposed in this study are as follows:

Tabel 1. Hypothesis

H1	Talent Development has a positive and significant direct effect on Entrepreneurial Orientation
H2	Talent Development has a positive and significant effect on Digital Competence
H3	Digital Competence has a positive and significant effect on Entrepreneurial Orientation
H4	Digital Competence mediates the relationship between Talent Development and Entrepreneurial Orientation

To test the relationship between the variables in this study, a path analysis model is constructed to examine both direct and indirect effects. The model consists of one independent variable, one mediating variable, and one dependent

variable. The independent variable is Talent Development (TD), the mediating variable is Digital Competence (DC), and the dependent variable is Entrepreneurial Orientation (EO). Based on the theoretical framework and proposed hypotheses, two structural equations are developed to represent the causal relationships among the variables.The first structural equation explains the direct effect of Talent Development on Digital Competence. It is formulated as follows:

$$DC = \beta1 \cdot TD + e1 \quad (1)$$

Where β1 represents the path coefficient showing the strength and direction of the influence of Talent Development on Digital Competence, and e1 is the residual error term.

The second structural equation examines the influence of both Talent Development and Digital Competence on Entrepreneurial Orientation. This equation is expressed as:

$$EO = \beta2 \cdot TD + \beta3 \cdot DC + e2 \quad (2)$$

In which β2 reflects the direct effect of Talent Development on Entrepreneurial Orientation, β3 indicates the effect of Digital Competence on Entrepreneurial Orientation, and e2 represents the unexplained variance.

Through this path model, the total effect of Talent Development on Entrepreneurial Orientation can be calculated by combining its direct and indirect effects. The indirect effect occurs through the mediating variable, Digital Competence, and is represented by the product of β1 and β3. Therefore, the total effect of Talent Development on Entrepreneurial Orientation is:

$$\text{Total Effect} = \beta2 + (\beta1 \times \beta3) \quad (3)$$

This formulation allows researchers to assess the extent to which Digital Competence contributes to mediating the relationship between Talent Development and Entrepreneurial Orientation.

The model enables a comprehensive understanding of how human resource strategies, particularly talent development, not only influence digital skills acquisition but also contribute to entrepreneurial behavior in the digital creative industry. This approach provides a robust framework for evaluating the strategic role of talent development in enhancing entrepreneurial outcomes in the context of Indonesia's growing digital economy, especially in creative hubs like the Megamas area of Manado.

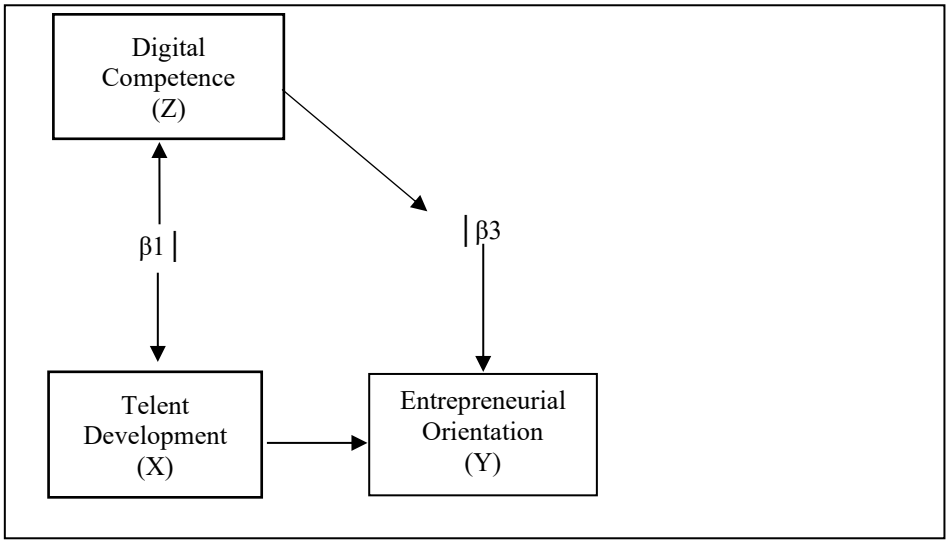

Figure 1. Path Analysis

3. Result and Discussions

3.1. Results

3.1.1. Descriptive Statistics of Each Variable

This study measured three main variables: Talent Development (TD) as the independent variable, Digital Competence (DC) as the mediating variable, and Entrepreneurial Orientation (EO) as the dependent variable. Each variable was measured using a 5-point Likert scale and analyzed through frequency distribution, mean, standard deviation, as well as minimum and maximum scores to understand respondents' perceptions of each variable.Based on data obtained from 75 respondents digital creative industry actors in the Megamas area of Manado the Talent Development variable had a mean score of 4.12 with a standard deviation of 0.41. This indicates that most respondents perceived their access to talent development strategies such as digital training, mentoring, and knowledge-sharing initiatives as high. The minimum score was 3.10 and the maximum was 4.80, suggesting that nearly all participants had a strong engagement in talent development activities.

For the Digital Competence variable, the mean score was 4.05 with a standard deviation of 0.45. This shows that creative industry actors generally felt confident in their digital competencies, particularly in using digital platforms, understanding technology, and adapting to digital environments. However, there was slight variation among respondents, likely influenced by differences in education or prior digital business experience.The Entrepreneurial Orientation variable had the highest mean score of 4.20 and a standard deviation of 0.39, with minimum and maximum scores of 3.30 and 4.85, respectively. This suggests that most digital entrepreneurs in the Megamas area had strong entrepreneurial orientation characteristics such as innovation, proactiveness, and risk-taking.

In general, the descriptive analysis shows that all three variables scored in the high category. This indicates a potentially significant relationship between talent development, digital competence, and entrepreneurial orientation, which will be further tested through path analysis in the following sections.

Tabel 2. Descriptive Statistics of Research Variables

Variable	No. of Items	Minimum Score	Maximum Score	Mean	Standard Deviation	Category
Talent Development (X)	6	3.10	4.80	4.12	0.41	High
Digital Competence (Z)	5	3.00	4.70	4.05	0.45	High
Entrepreneurial Orientation (Y)	6	3.30	4.85	4.20	0.39	High

3.1.2. Validity and Reliability Testing

Before conducting the path analysis, a validity and reliability test was carried out to ensure that the instrument used in the research accurately measured each variable. The validity test used was the Pearson Product-Moment correlation, where each item is considered valid if the correlation coefficient (r-count) is greater than the critical value (r-table) at the 5% significance level. With 75 respondents, the r-table value was approximately 0.227.The results showed that all items in the Talent Development (TD), Digital Competence (DC), and Entrepreneurial Orientation (EO) variables had r-count values higher than 0.227 and significance levels (p-values) less than 0.05. This indicates that all questionnaire items were significantly correlated with their respective total scores, and thus, all items used in this study are declared valid and suitable for further analysis.

Next, reliability testing was conducted using Cronbach's Alpha. A variable is considered reliable if the Cronbach's Alpha value exceeds 0.70, which indicates internal consistency among the items. The Talent Development variable showed a reliability coefficient of 0.842, Digital Competence reached 0.814, and Entrepreneurial Orientation recorded

0.867. These values confirm that all constructs meet the required reliability standard.Therefore, based on the results of the validity and reliability tests, the instrument used in this study is deemed to have met the quality standards required for statistical analysis. These results provide confidence that the data collected are valid and reliable for testing the relationships among the variables through path analysis.

Tabel 3. Validity and Realiability Test Results

Variable	Number of Items	r-table (α = 0.05, n = 75)	r-count Range	Significance (p-value)	Cronbach's Alpha	Conclusion
Talent Development (X)	6	0.227	0.45 – 0.78	< 0.05	0.842	Valid & Reliable
Digital Competence (Z)	5	0.227	0.49 – 0.81	< 0.05	0.814	Valid & Reliable
Entrepreneurial Orientation (Y)	6	0.227	0.52 – 0.83	< 0.05	0.867	Valid & Reliable

3.1.3. Path Analysis Results

The path analysis was conducted to examine the direct and indirect effects among the research variables, specifically to determine the influence of Talent Development (X) on Entrepreneurial Orientation (Y), both directly and through Digital Competence (Z) as a mediating variable. The model was tested using SPSS version 26, and the results are summarized through standardized beta coefficients (β) and significance values (p-values).The results revealed that Talent Development has a significant direct effect on Digital Competence, with a path coefficient of β1 = 0.512 and a p-value of 0.000 (p < 0.05). This suggests that the better the talent development strategies received by creative entrepreneurs, the higher their level of digital competence. This finding supports the theoretical proposition that structured development programs such as training, mentoring, and knowledge sharing enhance digital readiness.

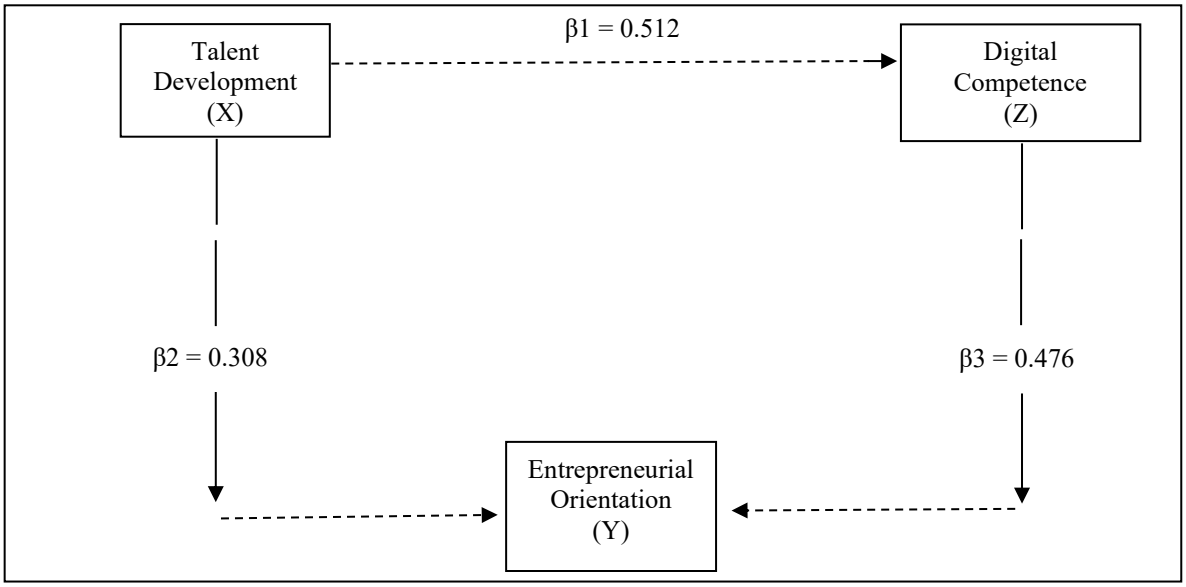

Figure 2. Path Analysis Results

Furthermore, Digital Competence also has a significant effect on Entrepreneurial Orientation, with a path coefficient of β3 = 0.476 and a p-value of 0.001. This indicates that entrepreneurs with higher digital competencies tend to exhibit stronger entrepreneurial behavior, including innovation, proactiveness, and risk-taking. The digital skills enable them to respond more effectively to market dynamics and leverage online platforms for creative business development.In addition, the analysis showed that Talent Development also has a direct effect on Entrepreneurial Orientation, with a

path coefficient of $\beta 2 = 0.308$ and a p-value of 0.004. This confirms that talent development strategies not only enhance skills but also directly promote entrepreneurial attitudes and behaviors among digital industry actors in the Megamas area.

Together, these results support the structural model proposed in this study. The significant pathways indicate that both direct and mediated effects are at play, with Digital Competence acting as a strong mediating factor between Talent Development and Entrepreneurial Orientation. These findings will be explored further in the next section, which discusses the mediating role of Digital Competence in greater detail.

3.2. Discussion

3.2.1. The Direct Influence of Talent Development on Digital Competence

The research findings indicate that talent development has a significant direct effect on digital competence, with a path coefficient of $\beta_1 = 0.512$ ($p < 0.05$). This suggests that the more structured and accessible the training, mentoring, and knowledge-sharing programs received by creative digital industry actors, the higher their level of digital competence. In the context of the Megamas area in Manado, creative industry practitioners must continuously adapt to digital trends in order to compete effectively. Thus, talent development serves not merely as a human capital investment but also as a strategic foundation to enhance digital adaptability in highly dynamic markets.

Theoretically, this relationship can be understood through the resource-based view, which emphasizes unique capabilities such as digital competence as a key source of competitive advantage. Villani et al. (2020) argue that in digital ecosystems, talent development acts as a major driver of value creation through technology adoption. Similarly, Chen et al. (2021) found that training tailored to the needs of creative startups significantly boosts technological mastery, which in turn drives innovation capacity. In other words, effective talent development becomes the cornerstone of sustainable digital transformation.

This finding is also aligned with the study of Sari and Prasetyo (2022), which analyzed the impact of digital training programs on SMEs in Indonesia. Their results demonstrated that entrepreneurs who participated in skill-building initiatives showed stronger abilities to manage digital tools and online business platforms. In the case of creative actors in Manado such as graphic designers, content creators, and digital marketers advanced digital literacy is crucial for both daily operations and strategic growth. Training initiatives thus not only upgrade technical skills but also build confidence in leveraging digital platforms productively.

Handayani and Fitriani (2023) emphasized that continuous digital training improves not only technical abilities but also motivation and readiness to adapt to fast-paced, platform-driven markets. The alignment between training content and practical needs becomes a crucial factor for program effectiveness. Therefore, training institutions whether public, private, or community-based must design learning strategies that are hands-on, applied, and responsive to the realities of the digital creative sector. In this light, talent development should be seen as an adaptive response to both technological change and shifting consumer behavior.

In summary, the positive link between talent development and digital competence supports the formulation of targeted human resource policies for the creative economy. By improving the quality and accessibility of training and mentoring, creative entrepreneurs are more likely to withstand technological disruptions and build innovative, future-ready businesses. Nugroho and Rachmawati (2020) assert that boosting digital competence is a fundamental requirement for competitiveness in Industry 4.0, particularly in the creative sector. Accordingly, talent development is no longer optional but an essential component of digital business capacity building in regions like Megamas.

3.2.2. The Influence of Digital Competence on Entrepreneurial Orientation

The study findings demonstrate that digital competence has a strong, direct influence on entrepreneurial orientation, with a path coefficient of $\beta_3 = 0.476$ ($p < 0.05$). This confirms that entrepreneurs who possess greater digital capabilities such as using digital platforms, adapting to technological trends, and analyzing digital data are more likely to exhibit higher levels of innovation, proactiveness, and risk-taking. In the context of the Megamas digital creative economy, the ability to master digital tools becomes not just a supporting skill, but a core component of entrepreneurial identity. This is especially relevant in environments where competitive advantage is increasingly dependent on how well digital resources are integrated into business strategy.

This finding aligns with the work of Dufays and Huybrechts (2021), who argue that digital competence enhances not only operational efficiency but also entrepreneurial behavior by enabling experimentation and rapid market adaptation. Entrepreneurs with digital literacy can identify opportunities earlier, respond to market shifts faster, and adopt technologies that streamline business processes. In essence, digital competence acts as a cognitive and behavioral catalyst that reinforces entrepreneurial traits. Such capacity becomes vital in creative sectors, where agility and responsiveness determine the sustainability of innovation-based ventures.

Additionally, evidence from Alshurideh et al. (2020) suggests that entrepreneurs equipped with digital competence are more inclined to adopt strategic innovations and lead market disruptions. In Megamas, the creative digital sector benefits from this pattern as actors use social media analytics, digital branding tools, and e-commerce platforms to capture niche markets. The integration of such tools boosts confidence, promotes calculated risk-taking, and supports proactive business development all key dimensions of entrepreneurial orientation.

Furthermore, digital competence empowers entrepreneurs to leverage collaboration and co-creation in online environments. As noted by Martínez-Climent et al. (2022), digital entrepreneurs tend to foster more open innovation and cross-sectoral partnerships due to their ease in operating within digital ecosystems. This is especially applicable in creative clusters like Megamas, where collaboration between designers, marketers, and tech developers fosters both creativity and entrepreneurship. In such settings, digital competence does not merely support solo performance but strengthens collective innovation capacity.

From a practical standpoint, these results reinforce the need for policy support and targeted interventions to improve digital literacy among creative entrepreneurs. Digital competence is not only a skill but a strategic enabler of entrepreneurship in the digital age. Research by Setiawan and Sulastri (2023) underscores that digital upskilling significantly boosts entrepreneurial success in urban creative hubs, particularly when training is integrated with real-world digital tools. Therefore, enhancing digital competence should be viewed as an essential strategy to drive entrepreneurial orientation, especially in developing regions where access to digital education remains unequal.

3.2.3. The Direct Influence of Talent Development on Entrepreneurial Orientation

The results reveal that talent development has a direct and statistically significant impact on entrepreneurial orientation, with a path coefficient of $\beta_2 = 0.308$ ($p < 0.05$). This finding implies that beyond enhancing digital competence, talent development initiatives such as entrepreneurship training, business mentoring, and experiential learning also directly shape entrepreneurial attitudes and behaviors. Specifically, entrepreneurs who regularly engage in development programs tend to exhibit a higher level of innovation, calculated risk-taking, and market proactiveness. In the context of the Megamas creative cluster, this suggests that structured human capital strategies can serve as independent catalysts for building entrepreneurial capacity.

This observation reinforces existing theories in human resource development and entrepreneurial psychology. According to the human capital theory, continuous investment in people's skills and knowledge is directly linked to their productivity and entrepreneurial capacity (Becker, 1993). More recent studies, such as by Nabi et al. (2017), suggest that talent development activities not only impart skills but also foster confidence, motivation, and the intention to act entrepreneurially. In fast-evolving digital creative sectors, these traits are essential, as they drive not just survival but innovation-driven growth.

Empirical evidence also supports this argument. A study by Adewale and Arogundade (2021) found that business development services provided to creative industry entrepreneurs in Nigeria had a direct positive influence on their entrepreneurial behavior. Similarly, research by Yusof et al. (2022) in Malaysia showed that talent development programs focusing on leadership and creative thinking improved participants' entrepreneurial orientation. These studies align with the case of Manado, where exposure to workshops, mentoring, and peer collaboration in the Megamas area appears to cultivate not just skill, but also the mindset necessary to lead digital ventures.

Moreover, entrepreneurial orientation requires more than just opportunity awareness it demands perseverance, resilience, and a willingness to act under uncertainty. These qualities are often reinforced through development programs that include experiential learning and mentorship, as shown in the study by Suharti and Sirine (2020). Entrepreneurs who undergo such programs are more likely to initiate new projects, experiment with ideas, and scale operations. In creative sectors, where innovation is often intangible and iterative, such development efforts are crucial in nurturing the behavioral dimensions of entrepreneurship.

Finally, this finding has practical implications for both policy and industry stakeholders. It underscores the importance of investing in structured, ongoing talent development to strengthen entrepreneurial ecosystems. As explained by Neneh (2020), entrepreneurial orientation in the digital era is a dynamic construct that can be cultivated through well-designed HR strategies. Local governments, educational institutions, and creative communities should thus prioritize capacity-building initiatives not only to develop digital skills but also to directly empower entrepreneurial behavior among digital MSMEs and startups.

3.2.4. The Mediating Role of Digital Competence in the Relationship Between Talent Development and Entrepreneurial Orientation

The results of this study indicate that digital competence significantly mediates the relationship between talent development and entrepreneurial orientation. The indirect effect, calculated as $\beta_1 \times \beta_3 = 0.512 \times 0.476 = 0.244$, demonstrates that digital competence acts as a crucial mechanism through which talent development influences entrepreneurial behavior. This finding emphasizes that improving digital skills not only enhances technical capabilities but also strengthens the confidence and agility needed to innovate, take risks, and proactively pursue market opportunities. In the Megamas creative industry cluster, where digital tools underpin both production and marketing, this mediated pathway is vital for long-term entrepreneurial success.

This result aligns with structural mediation theories in organizational behavior, which posit that intermediary competencies often explain how human resource practices translate into strategic outcomes (Baron & Kenny, 1986). In digital contexts, mediation by digital competence is particularly relevant due to the complexity of skills needed to convert training into market action. A study by Ismail et al. (2021) confirmed that digital readiness mediates the link between learning strategies and entrepreneurial output, particularly in developing countries where digital infrastructure is still evolving. Thus, the ability to transform talent development into entrepreneurial performance depends significantly on how well entrepreneurs internalize and apply digital knowledge.

Furthermore, the research by Ferreira et al. (2021) supports the notion that digital skills function as enablers of entrepreneurial learning and behavior. They argue that without digital competence, even well-designed talent programs may not lead to tangible entrepreneurial results. In Megamas, digital competence allows entrepreneurs to experiment in virtual markets, iterate on creative products, and collaborate with diverse stakeholders—all crucial behaviors embedded in entrepreneurial orientation. The digital layer thus enhances both the scope and impact of talent development interventions.

Additional support comes from empirical studies such as Nambisan (2017), who suggests that digital technologies reconfigure the foundations of entrepreneurship itself, creating new logics of value creation and opportunity exploitation. This transformation means that entrepreneurs must not only be capable learners but also digitally fluent actors. In this view, digital competence becomes a bridge connecting learning (talent development) with action (entrepreneurial orientation) and its absence can significantly weaken the link. Therefore, recognizing digital competence as a mediating factor offers valuable insight for policy-makers and educators alike.

Finally, this mediated relationship has practical implications. Development programs should be designed with a dual-focus approach integrating digital upskilling alongside traditional entrepreneurial education. This blended strategy ensures that talent development initiatives yield greater returns in entrepreneurial outcomes. As argued by Ainin et al. (2023), integrating digital tools into entrepreneurship training enhances learners' ability to navigate uncertainty, build digital business models, and scale sustainably. For regions like Manado, where digital literacy gaps may still exist, this strategy becomes especially critical to unlocking the full potential of the creative economy.

4. Conclusions

This study explored the influence of talent development strategies on entrepreneurial orientation among actors in the digital creative industry in the Megamas area of Manado, with digital competence as a mediating variable. The findings confirm that talent development through training, mentoring, and knowledge-sharing has both direct and indirect effects on entrepreneurial behavior. This affirms the critical role of structured human resource strategies in empowering creative entrepreneurs to thrive in dynamic digital environments.

The study also reveals that digital competence significantly mediates the relationship between talent development and entrepreneurial orientation. This implies that talent development alone is insufficient without parallel efforts to enhance digital fluency. Digital competence serves as a bridge between knowledge acquisition and entrepreneurial execution, enabling entrepreneurs to innovate, take risks, and respond proactively to digital market demands.

Each of the three main variables talent development, digital competence, and entrepreneurial orientation scored high among respondents, indicating a strong foundation for innovation and business adaptability in the Megamas creative sector. These results also validate previous research while contributing new insights into the importance of aligning talent strategies with digital readiness in developing regional hubs like Manado.

Based on these findings, it is recommended that stakeholders governments, training institutions, and creative business communities collaborate in designing integrated talent development programs. These should not only provide technical training but also cultivate entrepreneurial thinking and digital adaptability. Investing in such strategies will enhance the competitiveness of digital MSMEs and foster a resilient, innovation-driven creative economy in the region.

References

Abbas, J., Zhang, Q., Naseem, U., & Hussain, I. (2021). Talent Management, Organizational Performance, And Knowledge Management: A Mediating Role Of Innovation. *Journal Of Innovation & Knowledge, 6*(4), 234-245

Adewale, A. A., & Arogundade, K. K. (2021). Business Development Services And Entrepreneurial Orientation In Nigeria's Creative Industries. *Journal Of Small Business And Enterprise Development, 28*(5), 711–727. Https://Doi.Org/10.1108/JSBED-06-2020-0204

Ainin, S., Parveen, F., & Noor, I. M. (2023). Blended Learning For Digital Entrepreneurship: Evidence From Training Programs In Southeast Asia. *Education + Training, 65*(3), 421–440. Https://Doi.Org/10.1108/ET-04-2022-0127

Alshurideh, M., Al Kurdi, B., Salloum, S. A., & Arpaci, I. (2020). The Impact Of Digital Transformation On Strategic Entrepreneurship And Organizational Performance. *Sustainability, 12*(23), 10245. Https://Doi.Org/10.3390/Su122310245

Baron, R. M., & Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction In Social Psychological Research. *Journal Of Personality And Social Psychology, 51*(6), 1173–1182. Https://Doi.Org/10.1037/0022-3514.51.6.1173

Central Bureau of Statistics. (2023). *Creative Economy Statistics 2022*. Jakarta: BPS.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2022). Digital Talent Management And Innovation Capabilities In Creative Firms: A Strategic Perspective. *Journal Of Business Research*, 149, 591–602

Chen, Y., Zhou, X., & Liu, C. (2021). The Role Of Digital Competence And Entrepreneurial Orientation In Driving Innovation: Evidence From Creative Startups In China. *Technological Forecasting And Social Change*, 169, 120832. Https://Doi.Org/10.1016/J.Techfore.2021.120832

Collings, D. G., Mellahi, K., & Cascio, W. F. (2019). Global Talent Management And Performance In Multinational Enterprises: A Multilevel Perspective. *Journal Of Management, 45*(2), 540–566

Dufays, F., & Huybrechts, B. (2021). Where Do Digital Capabilities Fit In Social Entrepreneurship? A Behavioral Perspective. *Journal Of Business Venturing Insights*, 15, E00239. Https://Doi.Org/10.1016/J.Jbvi.2021.E00239

Eisingerich, A. B., Rubera, G., Seifert, M., & Bhardwaj, G. (2016). Doing Good And Doing Better Despite Negative Information? The Role Of Corporate Social Responsibility In Consumer Resistance To Negative Information. *Journal Of Service Research, 19*(2), 192–208

Ferreira, J. J., Fernandes, C. I., & Kraus, S. (2021). Entrepreneurship Education And Business Performance: Exploring The Mediating Role Of Digital Competence. *Technological Forecasting And Social Change*, 164, 120485. Https://Doi.Org/10.1016/J.Techfore.2020.120485

Florida, R., & Mellander, C. (2016). The Geography Of Innovation: The Role Of Creative Industries And Urban Hubs. *Regional Studies, 50*(2), 238–252

Handayani, S., & Fitriani, A. (2023). Digital Talent Development Strategy in Creative Economy Sector: Study on Social Media Based MSMEs. *Indonesian Journal of Management and Entrepreneurship, 11*(1), 55–68. Https://Doi.Org/10.31289/Jmki.V11i1.6543

Heisig, P., Suraj, O. A., Kianto, A., Kemboi, C., & Arrau, G. (2016). Knowledge Management And Business Performance: Global Experts' Views On Future Research Needs. *Journal Of Knowledge Management, 20*(6), 1169–1198

Ismail, I. J., Kahiya, E. T., & Tengeh, R. K. (2021). Digital Readiness And Entrepreneurship: The Mediating Role Of ICT Competence. *Journal Of Entrepreneurship In Emerging Economies, 13*(6), 1029–1051. Https://Doi.Org/10.1108/JEEE-02-2020-0025

Lukito, H., & Prabowo, H. (2020). Entrepreneurial Orientation Strategies In Indonesian Digital Startups. *Jurnal Manajemen Dan Kewirausahaan, 22*(2), 112–120

Martínez-Climent, C., Zorio-Grima, A., & Ribeiro-Soriano, D. (2022). Digital Entrepreneurship: A Systematic Literature Review. *Technological Forecasting And Social Change*, 174, 121245. Https://Doi.Org/10.1016/J.Techfore.2021.121245

Marzi, G., Ciampi, F., & Dabic, M. (2021). Entrepreneurship And Digital Transformation: Investigating The Role Of Digital Technologies On Business Model Innovation. *Technological Forecasting And Social Change*, 173, 121–138

Ministry of Tourism and Creative Economy. (2022). *Creative Economy Outlook 2022*. Jakarta: Ministry Of Tourism And Creative Economy.

Muriithi, S. M. (2017). African Small And Medium Enterprises (Smes) Contributions, Challenges And Solutions. *European Journal Of Research And Reflection In Management Sciences, 5*(1), 36–48

Nabi, G., Walmsley, A., Liñán, F., Akhtar, I., & Neame, C. (2017). Does Entrepreneurship Education In The First Year Of Higher Education Develop Entrepreneurial Intention? The Role Of Learning And Inspiration. *Studies In Higher Education, 43*(3), 452–467. Https://Doi.Org/10.1080/03075079.2016.1177716

Nambisan, S. (2017). Digital Entrepreneurship: Toward A Digital Technology Perspective Of Entrepreneurship. *Entrepreneurship Theory And Practice, 41*(6), 1029–1055. Https://Doi.Org/10.1111/Etap.12254

Neneh, B. N. (2020). Entrepreneurial Orientation In The Digital Era: Mediating Role Of Innovation Capacity. *Journal Of Entrepreneurship In Emerging Economies, 12*(3), 385–407. Https://Doi.Org/10.1108/JEEE-06-2019-0090

Nugroho, A., & Rachmawati, R. (2020). The Role of Digital Competence in Increasing the Competitiveness of Creative Businesses in the Industrial Era 4.0. *Indonesian Journal of Economics and Business, 35*(2), 120–132. Https://Doi.Org/10.22146/Jieb.54321

Obeidat, B. Y., Tarhini, A., & Masa'deh, R. (2016). A Framework For Talent Management In Jordanian Telecommunication Companies. *International Journal Of Management Science And Business Administration, 2*(2), 17–22

Obschonka, M., & Stuetzer, M. (2017). Integrating Psychological Approaches To Entrepreneurship: The Entrepreneurial Personality System (EPS). *Small Business Economics, 49*(1), 203–231

Pangemanan, J., & Katuuk, D. (2021). The Role Of Business Incubation In The Development Of Digital Msmes In The Megamas Area Of Manado. *Journal of Creative Economics and Business, 9*(1), 65–74

Rana, N. P., Slade, E. L., & Dwivedi, Y. K. (2023). Managing Digital Transformation Through Talent Strategies In Emerging Economies. *Information Systems Frontiers, 25*(1), 31–49

Rezaei-Zadeh, M., Hogan, M., O'Reilly, J., Cleary, B., & Murphy, E. (2017). Using Reflective Learning Journals To Promote Entrepreneurial Learning In Higher Education: A Reflective Approach. *Education + Training, 59*(2), 159–176

Sari, M. E., & Prasetyo, M. (2022). Digital Skill Training And Its Impact On SME Innovation Performance: Evidence From Indonesia. *Journal Of Small Business And Enterprise Development, 29*(5), 805–823. Https://Doi.Org/10.1108/JSBED-03-2021-0139

Setiawan, R., & Sulastri, L. (2023). The Role Of Digital Skills In Shaping Entrepreneurial Success Among Urban Youth: Evidence From Indonesia. *Journal of Economic Innovation, 8*(1), 44–58. Https://Doi.Org/10.24002/Jie.V8i1.6102

Siregar, A., & Nurhalimah, I. (2019). Developing Entrepreneurial Orientation Among Millennials Through Digital-Based Training. *Scientific Journal of Entrepreneurship, 8*(1), 88–95.

Suharti, L., & Sirine, H. (2020). The Role Of Talent Development And Experiential Learning In Fostering Entrepreneurial Behavior: Evidence From Creative Business Students In Indonesia. *Journal of Education and Entrepreneurship, 8*(2), 87–97. Https://Doi.Org/10.21831/Jpk.V8i2.3666

Villani, V., Presutti, M., & Majocchi, A. (2020). Talent Development And Entrepreneurial Orientation In Digital Ecosystems: A Resource-Based View Approach. *Journal Of Business Research*, 112, 209–218. Https://Doi.Org/10.1016/J.Jbusres.2020.02.036

Wahyuni, S., & Astuti, M. (2021). Exploring Digital Competence As A Driver Of Entrepreneurial Mindset: A Study Of Indonesian Creativepreneurs. *Journal Of Entrepreneurship Education, 24*(4), 1–13. Https://Doi.Org/10.51238/Jee.2021.2404

Widjaja, R. D., & Setiawan, D. (2021). The Influence Of HR Development On Entrepreneurial Orientation Of Creative Industry Actors In The Digital Era. *Journal of Economics and Technology Management, 3*(4), 245–260

Yusof, M., Rahman, A. R., & Salleh, F. (2022). Leadership-Focused Talent Development And Entrepreneurial Orientation Among Malaysian Youth. *Asia Pacific Journal Of Innovation And Entrepreneurship, 16*(1), 43–58. Https://Doi.Org/10.1108/APJIE-05-2021-0064