

The Effect Of Digital Literacy On Online Entrepreneurial Intentions: The Moderating Role Of Subjective Norms

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ABSTRACT

This study aims to analyze the effect of digital literacy on online entrepreneurial intentions and to examine the moderating role of subjective norms on the relationship between digital literacy and online entrepreneurial intentions. This research was a survey research, collecting data using a questionnaire distributed online with a sample size of 100 respondents who are millennials who are starting an online business. The analysis technique used is Structural Equation Modeling (SEM) with Partial Least Square (PLS). The findings of this study are that digital literacy has a positive effect on online entrepreneurship intentions, while subjective norms have no effect on online entrepreneurship intentions and do not moderate the relationship between digital literacy and online entrepreneurship intentions.

Keywords: Digital Literacy, Subjective Norms, Online Entrepreneurial Intentions

1. Introduction

The rapid development of e-commerce is due to the implementation of the sharing system. The development of technology and information will accompany the development of e-commerce. This development is evidenced by the high number of internet users in Indonesia reaching 64.8% of the total 267 million population, so e-commerce has great potential. E-commerce has a role to assist Micro, Small, and Medium Enterprises (MSMEs) in expanding the wider market and penetrating the international market. In line with the role of MSMEs which have an important task for the Indonesian economy (A. S. Suliyanto & Jati, 2013). This is shown by the large contribution made by MSMEs which can contribute to the Gross Domestic Product (GDP) of 60.3 percent and absorb 97 percent of the workforce in Indonesia.

However, the ability of MSMEs to run a technology-based business is still relatively low, this causes various problems in the operation of ¬e-commerce. The group of people born between 1996 and 2016 is grouped as generation Z who are seen as having qualified knowledge in the field of technology and information. On the other hand, the number of highly educated generation Z is small who decide to become e-commerce players, because they decide to work more become a state civil apparatus (ASN) or become a permanent employee in a private company that gets a



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more certain income. Generation Z is needed as a community group that can overcome the problem of lack of knowledge of information technology and digital marketing, to help e-commerce business people, especially in the field of marketing that is run. The generation has a high difference from the previous generation, namely the millennial generation. Generation Z is goal-oriented, flexible, and has high adaptability (Otieno & Nyambegera, 2019). Tang (2019) views that all aspects inherent in generation Z are very different from previous generations. Previous studies have stated that generation Z plays an important role because it has a significant impact on socio-economic, cultural, and political factors and changes in global dynamics that shape behavior and values in it.

Research on the intensity of entrepreneurship, in general, has been carried out in various countries in various discussions (Aditya, 2020; Bhuyan & Pathak, 2017; Byabashaija & Katono, 2011; Cheng et al., 2011; James & Sahid, 2022; Karimi et al., 2016; Kerr et al., 2018; Newman et al., 2019; Omar et al., 2019; Pérez-Fernández et al., 2022; Primahendra et al., 2021; Saraih et al., 2018; Yang, 2013), but specifically researching the intention of online entrepreneurship by generation Z is still relatively limited, even though generation Z is a generation that is considered to have better digital literacy compared to the previous generation (Schwieger & Ladwig, 2018; Singh & Dangmei, 2016).

Studies that have been conducted with generation Z subjects are more widely researched on the adoption and innovation of technology and its consequences, but it is still rare to discuss entrepreneurial intentions (Titko et al., 2020). On the other hand, the majority of studies that have been conducted focus on the difference between the intentions and behaviors of Generation Z towards entrepreneurship, while there are almost no studies that discuss the intentions of Generation Z or both towards entrepreneurship, while generation Z is more often considered digital natives. Previous research puts more emphasis on factors that have an impact on the success of individuals as entrepreneurs (Ibrahim et al., 2019). Therefore, this research focuses on the behavioral intentions of generation Z towards online entrepreneurship, because at this time it is the phase of generation Z to decide to have a career as a merchant or entrepreneur.

2. Research Methodology

The target population in this study is generation Z (born 1996 – 2012) who are starting a digital business in Banyumas, Central Java, Indonesia. A sample size of 100 respondents, data collection using questionnaires shared online. The sampling technique is carried out accidentally. To measure a person's response or response to a social object The construct measurement scale uses five Likert scales (E. T. Suliyanto, 2011), because the Likert scale is simple and easy to use (S. Suliyanto, 2011). Instruments for measuring digital literacy use ten items (Nurhajati, 2018; Raharjo & Winarko, 2021), to measure subjective norms using three items (Krueger et al., 2000; Engle et al., 2010), while to measure the intention of online entrepreneurship using four items adapted from (Engle et al., 2010; Kolvereid & Isaksen, 2006). Hypothesis testing of relationships between constructs was tested using Partial Least Square (PLS) bootstrapping technique as a tool (Chin, 1998). There are two stages in analyzing and interpreting the PLS model, namely testing of measurement and testing of the structural model (Hulland, 1999). Loading factor and Average Variance Extracted (AVE) are used in convergent validity tests as their internal validity (Hair Jr et al., 2014) and cross loading is used in validity discriminant tests. Internal consistency analysis using Cronbach's alpha (Cronbach, 1951; Nunnally, 1978) and composite reliability (CR) (Fornell & Larcker, 1981).



3. Results and Discussion

Respondent profiles are needed to obtain information about respondents' characteristics (Rachmawati et al., 2020). The respondents in this study numbered 100 people with a percentage of 41 percent of men and 59 percent of women, the respondents who answered the most questionnaires aged 20-25 years at 69 percent, then ≤ 20 years at 23 percent, and the rest ≥ 26 years at 8 percent, the majority of entrepreneurs selling their products at 42 percent, followed by becoming resellers at 23 percent, others 23 percent, being a social media admin at 5 percent, and graphic design services at 3 percent, while the most frequently used media is Instagram at 48 percent.

Table 1 Validity and Reliability of Research Instrument Test

Variable	Indicator	Loading	Cross	Cronbach	Composite	AVE
		Factor	Loading	Alpha	Reliability	
Subjective norm	SN_1	0.844	0.843	0.798	0.880	0.710
	SN_2	0.871				
	SN_3	0.812				
Digital literacy	DL_1	0.747	0.724 0.897	0.897	0.915	0.524
	DL_2	0.582				
	DL_3	0.706				
	DL_4	0.741				
	DL_5	0.815				
	DL_6	0.793				
	DL_7	0.756				
	DL_8	0.751				
	DL_9	0.692				
	DL_10	0.582				
Online	OEI_1	0.755	0.781	0.787	0.862	0.610
entrepreneurial	OEI _2	0.802				
intention	OEI _3	0.775				
	OEI _4	0.790				

Based on the test results, the outer model shows the level of validity and reliability of the loading factor > 0.5 and the cross loading > 0.7, thus all indicators of each variable are declared valid (Hair Jr et al., 2014). The value of Cronbach's Alpha is > 0.6 and the Composite Reliability > 0.7, thus all variables are declared reliable (Hair Jr et al., 2014), while the Average Variance Extract (AVE) value is > 0.5, so the consistency level of all variables is declared very well (Hair Jr et al., 2014).

Table 2 R-Square, R-Adjusted, and O-Square

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Variable	R Squares	R	Q-Square
		Adjusted	$=1-(1-R_I^2)$



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Online entrepreneurial intention	0.707	0.698	0.414	
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The Goodness of Fit Model test was used in the Q-Square Predictive Relevance (Chin, 1998). Table 3 shows the Q-square value of 0.798 greater than 33% so that it falls into the medium category (Chin, 1998). Figure 1 shows the results of the causality test between structural equation modeling constructs and SmartPLS:

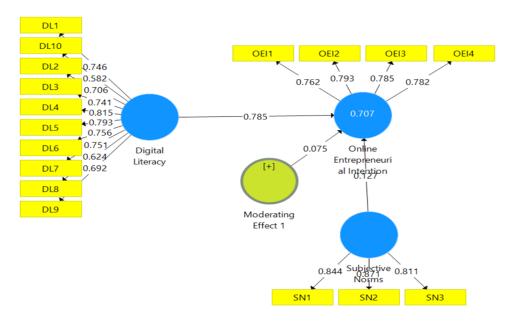


Figure 1 Result of Structural Equation Modelling

The hypothesis in this study was tested with PLS bootstrapping technique. The test used bootstrapping which obtained the beta parameter coefficient in the original sample, t-statistic value, and p-value. Based on the tests shown in table 4, it shows that achievement needs (β =0.178; t=2.550; p=0.011), digital literacy (β =0.395; t=2.875; p=0.004), self literacy (β =0.398; t=3.709; p=0.000) have a positive effect on online entrepreneurial intention, but subjective norms show values (β =0.031; t=0.561; p=0.575) which have negative implications for online entrepreneurial intention.

Table 3 Hypothesis Test Result

Hypoth esis	Independent variable	Dependent variable	Original Sample (O)	T Statistic	P value	Result
H_1	Digital literacy	Online entrepreneurial intention	0.785	8.897	0.000	Supported
H_2	Subjective norm	Online entrepreneurial intention	0.127	1.440	0.151	Not
H ₃	Moderating effect	Online entrepreneurial intention	0.075	0.072	0.299	supported Not Supported

4. Conclusion

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Based on the results of the analysis, shows that digital literacy has a positive effect on online entrepreneurial intention, but subjective norms have not moderated the relationship between digital literacy and online entrepreneurial intention. Digital literacy can increase online entrepreneurial intention, this is because the more digital literacy a person has, the better his ability to digest and store information, so his critical thinking ability will also increase and have implications for online entrepreneurial intention. This finding is also in line with the results of research that has been carried out by (Bayrakdaroğlu & Bayrakdaroğlu, 2017; Islami, 2019; James & Sahid, 2022; Mudasih & Subroto, 2021; Mugiono et al., 2021; Primahendra et al., 2021; Sariwulan et al., 2020).

Subjective norms surprisingly have no significant influence on online entrepreneurial intention. The findings are different from the majority of previous studies such as (Aditya, 2020; Bhuyan & Pathak, 2017; Cheng et al., 2011; Karimi et al., 2016; Kristanto & Pratama, 2020; Rastini et al., 2013; Saraih et al., 2018; Tong et al., 2011; Yang, 2013).

Thus, this research provides clues about the intentions of online entrepreneurship generation Z determined by the level of digital literacy it has alone, without any intervention from subjective norms, so there is a need for encouragement to improve their digital literacy and readiness to accept technology due to the development of the times that have not yet ended. On the other hand, subjective norms at this time are no longer things that burden generation Z to decide the career they will pursue.

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References

- Aditya, S. (2020). The Influence of Attitude, Subjective Norms, Perception of Self-Control And Entrepreneurship Education on Entrepreneurial Intentions. *Journal of Business and Behavioural Entrepreneurship*, 4(2), 66–83.
- Bayrakdaroğlu, F., & Bayrakdaroğlu, A. (2017). A comparative analysis regarding the effects of financial literacy and digital literacy on internet entrepreneurship intention. *Girişimcilik ve Kalkınma Dergisi*.
- Bhuyan, M., & Pathak, P. (2017). Understanding entrepreneurial intention of university students in Uttarakhand: An empirical study. *Indian Journal of Commerce and Management Studies*, 8(2), 93–100.
- Byabashaija, W., & Katono, I. (2011). The impact of college entrepreneurial education on entrepreneurial attitudes and intention to start a business in Uganda. *Journal of Developmental Entrepreneurship*, 16(01), 127–144.
- Cheng, S.-I., Fu, H.-H., & Tu, L. T. C. (2011). Examining customer purchase intentions for counterfeit products based on a modified theory of planned behavior. *International Journal of Humanities and Social Science*, 1(10), 278–284.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. In *MIS quarterly* (pp. vii–xvi). JSTOR.

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International Conference on Sustainable Competitive Advantage 2022

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- Engle, R. L., Dimitriadi, N., Gavidia, J. V, Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. Sage Publications Sage CA: Los Angeles, CA.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.
- Ibrahim, M. D., Mamun, A. Al, Othman, N., Yusoff, M. N. H., Samy, N. K., Baba, S., Ismail, A. S. J., Mahmood, T. M. A. T., & Abdullah, N. N. H. N. (2019). The development of an entrepreneurship index for low-income households. *Business Perspectives and Research*, 7(1), 16–29.
- Islami, N. N. (2019). The effect of digital literacy toward enterpreneur behaviors through students' intention enterpreneurship on Economics Education Study Program at Jember. *IOP Conference Series: Earth and Environmental Science*, 243(1), 12084.
- James, E., & Sahid, S. (2022). Entrepreneurial Literacy and Social Entrepreneurship Intentions among Youth.
- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., & Mulder, M. (2016). The impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification. *Journal of Small Business Management*, 54(1), 187–209.
- Kerr, S. P., Kerr, W. R., & Xu, T. (2018). Personality traits of entrepreneurs: A review of recent literature. *Foundations and Trends*® *in Entrepreneurship*, *14*(3), 279–356.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, 21(6), 866–885.
- Kristanto, H., & Pratama, R. W. (2020). Effects of the neuroticism and agreeableness personality types on entrepreneurial intention with subjective norm as moderator. *Expert Journal of Business and Management*, 8(1).
- Mudasih, I., & Subroto, W. T. (2021). The effect of financial literacy, digital literacy, and entrepreneurial learning outcome on entrepreneur behavior of students at SMK Negeri 1 Surabaya. *Technium Soc. Sci. J.*, 15, 303.
- Mugiono, M., Prajanti, S. D. W., & Wahyono, W. (2021). The Effect of Digital Literacy and Entrepreneurship Education towards Online Entrepreneurship Intention through Online Business Learning and Creativity at Marketing Department in Batang Regency. *Journal of Economic Education*, 10(1), 21–27.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy:

SCA 12

International Conference on Sustainable Competitive Advantage 2022

- A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior*, 110, 403–419.
- Nunnally, J. C. (1978). Psychometric Theory 2nd edition (New York: McGraw).
- Nurhajati, N. (2018). Dampak Pengembangan Desa Wisata Terhadap Peningkatan Kesejahteraan Masyarakat (Studi di Desa Mulyosari Kecamatan Pagerwojo Kabupaten Tulungagung). *Publiciana*, 11(1), 1–13.
- Omar, N. A., Shah, N. U., Hasan, N. A., & Ali, M. H. (2019). THE INFLUENCE OF SELF-EFFICACY, MOTIVATION, AND INDEPENDENCE ON STUDENTS'ENTREPRENEURIAL INTENTIONS. *Journal of Nusantara Studies (JONUS)*, 4(2), 1–28.
- Otieno, J. O., & Nyambegera, S. M. (2019). Millennials and Generation Z Employees are here: Is your Organization ready? *Journal of Language, Technology & Entrepreneurship in Africa*, 10(2), 68–85.
- Pérez-Fernández, H., Cacciotti, G., Martín-Cruz, N., & Delgado-García, J. B. (2022). Are interactions between need for achievement and social networks the driving force behind entrepreneurial Intention? A trait activation story. *Journal of Business Research*, 149, 65–76.
- Primahendra, R., Purba, J. T., Ugut, G. S. S., & Budiono, S. (2021). Do Digital Literacy and Digital Entrepreneurship among University Students Contribute to Digital Economy? *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(3), 7387–7394.
- Rachmawati, E., Suliyanto, & Suroso, A. (2020). A moderating role of halal brand awareness to purchase decision making. *Journal of Islamic Marketing*, 13(2), 542–563. https://doi.org/10.1108/JIMA-05-2020-0145
- Raharjo, N. P., & Winarko, B. (2021). Analisis Tingkat Literasi Digital Generasi Milenial Kota Surabaya dalam Menanggulangi Penyebaran Hoaks. *Jurnal Komunika: Jurnal Komunikasi, Media Dan Informatika*, 10(1), 33–43.
- Rastini, N. M., Seminari, N. K., & Sulistyawati, E. (2013). Pengaruh Sikap dan Norma Subyektif Masyarakat Kota Denpasar terhadap Niat Belanja Pada Pasar Tradisional. *Jurnal Manajemen, Strategi Bisnis, Dan Kewirausahaan, 7 (2) Pp: 107, 115*.
- Saraih, U. N., Aris, A. Z. Z., Mutalib, S. A., Ahmad, T. S. T., & Amlus, M. H. (2018). Examining the relationships between attitude towards behaviour, subjective norms and entrepreneurial intention among engineering students. *MATEC Web of Conferences*, 150, 5011.
- Sariwulan, T., Suparno, S., Disman, D., Ahman, E., & Suwatno, S. (2020). Entrepreneurial performance: The role of literacy and skills. *The Journal of Asian Finance, Economics and Business*, 7(11), 269–280.
- Schwieger, D., & Ladwig, C. (2018). Reaching and retaining the next generation: Adapting to the expectations of Gen Z in the classroom. *Information Systems Education Journal*, 16(3), 45.
- Singh, A. P., & Dangmei, J. (2016). Understanding the generation Z: the future workforce. *South-Asian Journal of Multidisciplinary Studies*, 3(3), 1–5.
- Suliyanto, A. S., & Jati, D. P. (2013). Potential and Problems of Small Medium Enterprise (SMEs)-coconut-



International Conference on Sustainable Competitive Advantage 2022

- sugar: case study in Banyumas Regency, Central Java-Indonesia. *International Journal of Business and Management*, 8(3), 18–26.
- Suliyanto, E. T. (2011). Teori & Aplikasi dengan SPSS. Andi, Jakarta.
- Suliyanto, S. (2011). Perbedaan Pandangan Skala likert sebagai Skala Ordinal atau skala Interval. *Prosiding Seminar Nasional Statistika Universitas Diponegoro 2011*, 51–60.
- Tang, F. (2019). A critical review of research on the work-related attitudes of Generation Z in China. *Social Psychology and Society*, 10(2), 19–28.
- Titko, J., Svirina, A., Skvarciany, V., & Shina, I. (2020). Values of young employees: Z-generation perception. *Verslas: Teorija Ir Praktika/Business: Theory and Practice*, 21(1), 10–17.
- Tong, X. F., Tong, D. Y. K., & Loy, L. C. (2011). Factors influencing entrepreneurial intention among university students. *International Journal of Social Sciences and Humanity Studies*, *3*(1), 487–496.
- Yang, J. (2013). The theory of planned behavior and prediction of entrepreneurial intention among Chinese undergraduates. *Social Behavior and Personality: An International Journal*, 41(3), 367–376.