Digital Marketing Literacy as A Mediation of Online Business Readiness Influenced by Entrepreneurship Education (Study on Business Operators in Malang Raya)

Brian Wicaksono Ardiansyah[1], F. Danardana Murwani[2] , Ludi Wishnu Wardana[3] , Farij Ibadil Maula[4]

[1*,2,3]Universitas Negeri Malang,Indonesia
[4]Sekolah Tinggi Ilmu Ekonomi Artha Bodhi Iswara Surabaya, Indonesia

Corresponding Author: brian.wicaksono.2004158@students.um.ac.id[1*)]

Abstract:
The current post-pandemic situation of COVID-19 presents challenges for business actors as well as challenges for the state to maintain the existence of the economy. There are many sectors of the domestic and global economy that are affected. The impact of the pandemic has been most felt in the micro, small and medium enterprise (MSMEs) sector. This is what makes the condition of MSMEs and micro and small entrepreneurs, especially in Malang Raya, paralyzed and decreased. If the country wants its economy to progress, it is important to increase businesspeople. Currently, one of the most popular forms of business in Indonesia is making purchases online. This research has implications for the development of the Unified Theory of Acceptance and Use of Technology (UTAUT) theory, a technology acceptance model that was developed based on the amalgamation of other existing technology acceptance models. As described above, this research has a novelty by completing the gaps of previous studies, conducting a comprehensive study of the online business readiness of MSMEs in Malang Raya with digital marketing literacy as a mediating variable. This research uses quantitative methods. The research population of business actors in Malang Raya with a sample of 260. Data analysis used SEM PLS. Based on the research results, it is stated that entrepreneurship education can increase the online business readiness of MSMEs in Malang Raya. Entrepreneurship education can increase digital marketing literacy of MSMEs in Malang Raya. Digital marketing literacy can improve online business readiness for MSME actors in Malang Raya. Entrepreneurship education can improve online business readiness through digital marketing literacy for MSMEs in Malang Raya. Online business readiness can be increased with good quality entrepreneurship education supported by good digital marketing literacy.

Introduction

The current post-pandemic situation of COVID-19 presents a challenge for business actors as well as a challenge for the state to maintain the existence of the economy (Dong et al., 2020; Jena, 2020; Kaushik, 2020; Rita Amelinda, 2020). There are many sectors of the domestic and global economy that are affected. The impact of the pandemic has been most felt in the micro, small and medium enterprise (MSMEs) sector. The last impact is significantly influenced by the effects of government policies. Decreased income and even several hundred MSME business actors have closed their businesses after the government officially announced that people should work from home, closed public service agencies, and required people to wear masks and social distance (Hidayat, 2020; Kaushik, 2020; Mardhia et al., 2020).

Entrepreneurship is the right choice for individuals who are challenged to create work, not look for work (Mutanda & Moyo, 2021). Doing business is still an effective strategy for the State of Indonesia in reducing economic problems (Al-Kwifi et al., 2020; Bernárdez, 2008; Jasra et al., 2010; Kozielski, 2019). Of course, in the current era, business actors must be able to adapt to the times. Currently, one of the most popular forms of business in Indonesia is making purchases online. Online shopping is the only way to do business using electronics or social media to transact business; customers only need to browse the internet for the items they want to buy, send the money needed for the transaction, then wait for the goods to be received and processed by the particular online store in question. (da Silveira et al., 2021; Kandpal & Mehrotra, 2019; Lestari & Saifuddin, 2020; Sopiyan, 2022). According to Saura, (2021) the online business is actually a third party that will bridge the two actors buying and selling products online.

Becker & Schmid, (2020); Bejaković & Mrnjavac, (2020) convey that in the era of modern society as it is today, the internet / online is used as an alternative source of information that can be accessed by someone to fulfill a need for certain information. Based on current developments, researchers can conclude that information and communication technology has helped a lot in increasing social and economic activities, one of which is using online business, which has an important role as a media or supporting facility to search for information and communicate precisely and accurately.

Now online shopping has become a way for users because it is considered more practical. With the development of browsing, online shopping has become an alternative way of purchasing goods because the internet can certainly be classified as something new in the form of shopping. Aulia, (2021); Kurdi et al., (2022); and Verma, (2018) stated that the internet has now developed in terms of service range, efficiency, security and popularity. That's why the emergence of an online business can be an effective solution for running technology-based businesses, such as Facebook, Instagram, Shopee, Lazada, OLX, Bukalapak, etc.

In order for business actors to expand their market from the conventional to the online era and to be adaptive in entrepreneurship, it is mandatory to improve the soft skills of entrepreneurship skills through entrepreneurship education (Bazkiaei et al., 2020; Chaffey & Bosomworth, 2013; Lynch et al., 2021; Mishra et al. ., 2017; Mutanda & Moyo, 2021; O'Connor, 2013; Prabhu, 2019; Ritz et al., 2019). Mutanda & Moyo, (2021) Entrepreneurship

education is a person's understanding of entrepreneurs with various positive, creative and innovative characters in developing business opportunities into business opportunities that benefit themselves and society or consumers (Cho & Lee, 2018; Kisubi & Korir, 2021). Basic entrepreneurial knowledge of entrepreneurial resources contained within individuals while (Cho & Lee, 2018; Hasan et al., 2020; Hernández-Sánchez et al., 2019; Kisubi & Korir, 2021) provides a statement that entrepreneurial knowledge is knowledge that owned by someone who is needed especially to produce new products or services, generate new added value, start new businesses, implement new processes/techniques, develop new organizations. Entrepreneurial knowledge is obtained and owned by an individual through entrepreneurship education which can later help an individual innovate and survive in the entrepreneurial field (Agarwal et al., 2020; Henrekson & Sanandaji, 2017; Honig, 1998; Prabhu, 2019; Wardana et al. , 2020; Yang & Kim, 2020)

Reviewed from several studies (Bazkiaei et al., 2020; Hägg & Gabrielsson, 2020; Hernández-Sánchez et al., 2019; Machali et al., 2021; Pérez-Bustamante, 2014; Sang & Lin, 2019; Wardana et al. , 2020) states that there are several factors that affect one's entrepreneurship education, namely: (1) basic knowledge of entrepreneurship, interest in doing business needs to be realized by having information to find or create business opportunities so as to help realize their business. (2) knowledge of business ideas and opportunities, the formation of interest in trying to produce a business requires the presence of structured thoughts or new things. (3) knowledge about business aspects, existing information will create a process through various obstacles and risks that will be passed to realize their business.

Based on the definitions put forward by experts about what is meant by entrepreneurship education, it can be concluded that entrepreneurship education is a person's ability to produce something new through creative thinking and innovative actions, so as to create ideas or business opportunities and can used by themselves and others. Furthermore, Nisa & Pramesti, (2020); Omar & Atteya, (2020); Purbasari et al., (2021); Redjeki & Affandi, (2021) explain the factors that can increase online business readiness, namely through awareness of the community/technology users so that they can use it productively and no longer consumptive. Because in the current era, people rarely use old school cellphones, almost everyone has sophisticated cellphones, with this sophistication it is hoped that they can optimize it into a business. Therefore, today's society must be prepared to transition from consumption to production. Not only consuming anything in the digital world, but also producing it, which requires a sharp complexity.

Cueto et al., (2022); Olson et al., (2021) regarding digital marketing literacy is a highly adaptable ability that allows people to take advantage of technical skills and navigate a variety of information that exists in internet networks. Technical ability in accessing current technology may change in the future, but digital literacy forms a person to be ready in the present and the future, whatever form of technology will exist later. Various questions regarding digital marketing literacy, one of which is Appio et al., (2021); Kitsios & Kamariotou, (2021) argues that humans basically live in three domains, namely: the natural world of

everything on the surface of the earth that exists without human intervention and invention, the social world of all systems created by humans for their collective life, and the designed world results of human modification of the natural world and social world. One form of designed world is information and communication technology created by humans to collect, manipulate, classify, store, and distribute information.

In relation to the behavior of accepting responses to technological developments, researchers involve Vankatesh's theory about the Unified Theory of Acceptance and Use of Technology (UTAUT) that researchers use in interpreting responses to technological developments in the entrepreneurial world Blut et al., (2021); Venkatesh, (2022) describes a technology acceptance model that was developed based on the amalgamation of other existing technology acceptance models. The UTAUT model was developed based on several models such as Theory of Reasoned Action (TRA) Model Theory of Reasoned Action (TRA) is used to study human behavior (Venkatesh et al., 2003). Nur Nabihah Mohd Nizari et al., (2019) and Vyas & Vyas, (2019) also explained that research in social psychologists shows that a person's behavior towards certain behaviors is a determining factor whether or not an individual does this behavior. TRA explains that beliefs can affect attitudes and social norms which will change the shape of the desire to behave either guided or just happen in an individual's behavior. This theory emphasizes the role of a person's intention in determining whether a behavior will occur. TRA has two main constructs of intention: (1) attitude towards behavior and (2) subjective norms associated with this behavior. In the results of the TRA research, the construct of attitudes towards behavior can determine the success of MSME businesses, entrepreneurs who have a positive attitude willing to accept new things, have an open mindset will further increase business opportunities that are more innovative and adaptive (Venkatesh et al., 2003; Technology, 2014 ; Nizari et al., 2019; Venkatesh, 2022; Vyas & Vyas, 2019).

The urgency of this research is proposed because business actors, especially in the Greater Malang area, have a considerable opportunity to participate in building the regional economic system. Through the expansion of Online Business, business people not only provide jobs for themselves but also for others. Moreover, the location of Malang is that there are many universities, both public and private, and many various tourist attractions, so that it will create a good business cycle, so that it is not homogeneous in one area. Knowledge of Entrepreneurship Education really needs to be continuously improved for business actors throughout Malang Raya, added with digital marketing insights that are kept up to date, and must be able to adapt to change.

This research contributes to Educational Institutions to keep up to date in providing entrepreneurship education, as well as adopting digital marketing insights: Social Media, Place Mockups, E-Commerce, and Websites in entrepreneurial practice. Based on the background and state of the art as described, this research is novelty by completing the gaps in previous studies, conducting a comprehensive study of the development of UTAUT theory at the practitioner level in Malang Raya as measured by entrepreneurship education with

digital marketing literacy as a determinant for online business readiness for business actors throughout Malang Raya.

Research Method

This research is a research with a quantitative approach that aims to describe and analyze the influence between variables. There are three types of variables used including one predictor variable for Entrepreneurship Education (X1), one intervening variable namely Digital Marketing Literacy (Z), and one criterion variable namely Online Business Readiness (Y). researchers make business actors throughout Malang Raya as a population. The reason is that the location of Malang is that there are many universities, both public and private, and there are many tourist attractions, so that it will create a good business cycle, so that it is not homogeneous in one area. This study used proportionate stratified random sampling with reference to the model developed by Cresswell (2013). The sample criteria used in this study are: (1) business actors who have been running their business for ≥ 2 (two) years (2) business actors who own cellphones / use technology. Based on the criteria described previously, the determination of the number of samples in this study was 260 samples.

In this study the assessment instrument used was a questionnaire. The instrument in this study was developed based on a review of various previous literature related to the variables of Entrepreneurship Education (X1), Digital Marketing Literacy (Z), and online business readiness (Y) for MSME entrepreneurs in Malang Raya. The measurement of each statement is using a Likert scale with a score ranging from 1-5. In accordance with the formulation of the problem and research objectives, as well as the hypotheses tested in this study, the data analysis technique used in this research is Structual Equation Modeling (SEM), Before the analyzed data will be tested for SEM assumptions, namely: a) normality, b) outliers and c) multicollinearity

Result and Discussion

Description of the Research Object

Malang is the second largest city in East Java after Surabaya, geographically located at 112.06 -112.07° East Longitude and 7.06° - 8.02° South Latitude covering an area of 11,006 ha. Malang City is in the middle of the administrative area of Malang Regency with the following administrative boundaries: (1) To the north: bordering Singosari District and Karangploso District, Malang Regency; (2) South side: bordering Tajinan District and Pakisaji District, Malang Regency; (3) West side: bordering Wagir District, Malang Regency and Dau District, Malang Regency; (4) East side: bordering with Pakis District and Overlapping District, Malang Regency. In its decree regarding the division of the Malang City area, administratively it is divided into 5 (five) sub-districts with a total of 57 (fifty seven) sub-districts.

The natural potential of Malang City is its relatively high location, which is 440 – 667 meters above sea level. One of the highest locations is the Buring Mountains which are located east of Malang City. Malang City climate conditions are relatively comfortable. The average air temperature ranges from 22.2oC to 24.5oC. Meanwhile, the maximum

temperature reaches 32.3oC and the minimum temperature is 17.8oC. The average humidity ranges from 74% - 82%, with a maximum humidity of 97% and a minimum of 37%. Like most other areas in Indonesia, Malang City follows the changes in the 2nd round of climate change, the rainy season and the dry season. From the observations of the Karangploso Climatology Station, relatively high rainfall occurs in January, February, March, April and December. While in June, August and November rainfall is relatively low.

Malang City Government continuously strives to develop the regional economy. One of them is in the field of SMEs, moving from Law no. 20 of 2008 concerning Small, Micro and Medium Enterprises is the implementer of the Malang City Government policy in developing the regional economy through empowering SMEs based on creative economy which aims to overcome poverty. With this policy, the quality of human resources will increase and will foster an entrepreneurial spirit. Development progress that has been achieved so far has indicated an increase in the economy and a decrease in the poverty rate. The quality of community human resources can be seen, one of them, from the number of SMEs in Malang City in 2015 which reached 76,290 SMEs spread across five sub-districts.

Table 1.
Characteristics of Respondents Based on Years of Entrepreneurship

Length of Entrepreneurship	Frequency	Percentage
< 5 Year	52	20
5 - 10 Year	130	50
> 10 Year	78	30
Total	260	100

Source: Primary Data Processed by researchers, 2023

Based on the table above, it shows that the majority of MSME actors in Malang Raya have been entrepreneurship for 5-10 years with a total of 130 respondents (50.0%) of all respondents, followed by MSME actors in Greater Malang with a length of entrepreneurship of more than 10 years totaling 78 respondents (30.0%) of the total respondents, and at least 52 respondents (20%) were entrepreneurs for < 5 years.

Table 2. Characteristics of Respondents by Business Field

Business fields	Frequency	Percentage
F&B	114	43.8
Fashion	104	40
Management Industry	10	3.8
Jasa Finance	12	4.6
Konstruksi	10	3.8
Tourism	10	3.8
Total	260	100

Source: Primary Data Processed, 2023

Based on the table above, it shows that the majority of MSMEs in Malang Raya are engaged in the F&B business with a total of 114 respondents (43.8%) of all respondents, followed by the Fashion business sector with 104 respondents (40.0%) of the total respondent. There were 12 respondents (4.6%) in the financial services business sector of the total respondents, and at least 10 respondents (3.8%) in the construction, management and tourism industries.

Table 3.
Characteristics of Respondents Based on the Number of Business Applications

Number of Business Applications	Frequency	Percentage
1	16	6.2
2	75	28.8
3	101	38.8
4	68	26.2
Total	260	100

Source: Primary Data Processed by researchers, 2023

Based on Table 4.6 above, it shows that the majority of MSMEs in Malang Raya have 3 Business Applications with a total of 101 respondents (38.8%) of all respondents, followed by MSMEs in Greater Malang with a total of 75 Business Applications 2. (28.8%) of the total respondents, the number of Business Applications 4 was 68 respondents (26.2%) and the least number of Business Applications 1 year was 16 respondents (6.2%).

Table 4.
Frequency Distribution for Entrepreneurship Education Variables

Item	1 F	1 %	2 F	2 %	3 F	3 %	4 F	4 %	5 F	5 %	Average
X1.1	0	0.00	29	11.15	41	15.77	109	41.92	81	31.15	3.93
X1.2	0	0.00	33	12.69	43	16.54	100	38.46	84	32.31	3.90
X1.3	0	0.00	19	7.31	44	16.92	119	45.77	78	30.00	3.98
X1.4	0	0.00	63	24.23	6	2.31	92	35.38	99	38.08	3.87
X1.5	0	0.00	18	6.92	49	18.85	120	46.15	73	28.08	3.95
X1.6	0	0.00	21	8.08	71	27.31	120	46.15	48	18.46	3.75
Rata-rata											3.90

Source: Primary Data Processed by researchers, 2023

Table 5.
Frequency Distribution for Digital Marketing Literacy Variables

Item	1 F	1 %	2 F	2 %	3 F	3 %	4 F	4 %	5 F	5 %	Average
Z1	0	0.00	48	18.46	24	9.23	99	38.08	89	34.23	3.88
Z2	0	0.00	13	5.00	69	26.54	106	40.77	72	27.69	3.91
Z3	0	0.00	13	5.00	64	24.62	108	41.54	75	28.85	3.94

Item	1		2		3		4		5		Average
	F	%	F	%	F	%	F	%	F	%	
Z4	0	0.00	29	11.15	37	14.23	85	32.69	109	41.92	4.05
Z5	0	0.00	11	4.23	69	26.54	106	40.77	74	28.46	3.93
Z6	0	0.00	10	3.85	49	18.85	128	49.23	73	28.08	4.02
Z7	0	0.00	21	8.08	49	18.85	111	42.69	79	30.38	3.95
Z8	0	0.00	16	6.15	70	26.92	113	43.46	61	23.46	3.84
Rata-rata											3.94

Source: Primary Data Processed, 2023

Table 6.
Frequency Distribution for Online Business Readiness Variables

Item	1		2		3		4		5		Average
	F	%	F	%	F	%	F	%	F	%	
Y1	0	0.00	35	13.46	22	8.46	101	38.85	102	39.23	4.04
Y2	0	0.00	13	5.00	63	24.23	105	40.38	79	30.38	3.96
Y3	0	0.00	7	2.69	48	18.46	121	46.54	84	32.31	4.08
Y4	0	0.00	39	15.00	27	10.38	118	45.38	76	29.23	3.89
Y5	0	0.00	14	5.38	48	18.46	112	43.08	86	33.08	4.04
Y6	0	0.00	15	5.77	53	20.38	120	46.15	72	27.69	3.96
Y7	0	0.00	25	9.62	41	15.77	109	41.92	85	32.69	3.98
Y8	0	0.00	26	10.00	44	16.92	96	36.92	94	36.15	3.99
Y9	0	0.00	12	4.62	44	16.92	125	48.08	79	30.38	4.04
Y10	0	0.00	13	5.00	51	19.62	126	48.46	70	26.92	3.97
Y11	0	0.00	13	5.00	60	23.08	130	50.00	57	21.92	3.89
Y12	0	0.00	22	8.46	39	15.00	105	40.38	94	36.15	4.04
Rata-rata											3.99

Source: Primary Data Processed, 2023

The lowest average is found in the statement "I can understand trend development traffic in social media marketing and e-commerce" with an average of 3.89. Out of a total of 260 respondents, 130 respondents (50.00%) agreed, 57 respondents (21.92%) strongly agreed, 60 respondents (23.08%) answered neutral, 13 respondents (5.00%) disagreed and no respondents (0.0 %) who answered strongly disagree. This shows that the understanding of trend development traffic in social media marketing and e-commerce for the majority of respondents is still lacking compared to other aspects of Online Business Readiness. The conclusion obtained from all statement items can be obtained that the average value of all statements regarding the Online Business Readiness variable (X) is 3.99. This value means that the respondent agrees with the statements in Online Business Readiness.

Results of Data Analysis
Convergent Validity

The convergent validity value is the loading factor value on the latent variable with its indicators. The individual reflexive measure is said to be high if it correlates more than 0.70 with the construct you want to measure. However, a loading value of 0.50 to 0.60 can be considered sufficient (Chin, 1998) in Ghozali (2011). In Table 4.9, the results of the outer loading for each indicator are presented.

Table 7.
Validity Test Results Using Loading Factor Values

Variable	Indicator	Outer Loadings	Decision
Entrepreneurship Education (X)	X1	0,814	Valid
	X2	0,815	Valid
	X3	0,808	Valid
	X4	0,811	Valid
	X5	0,739	Valid
	X6	0,782	Valid
Online Business (Y)	Y1	0,817	Valid
	Y10	0,765	Valid
	Y11	0,751	Valid
	Y12	0,771	Valid
	Y2	0,741	Valid
	Y3	0,744	Valid
	Y4	0,747	Valid
	Y5	0,771	Valid
	Y6	0,728	Valid
	Y7	0,714	Valid
	Y8	0,803	Valid
	Y9	0,723	Valid
Digital Marketing Literacy (Z)	Z1	0,818	Valid
	Z2	0,758	Valid
	Z3	0,808	Valid
	Z4	0,842	Valid
	Z5	0,754	Valid
	Z6	0,733	Valid
	Z7	0,790	Valid
	Z8	0,733	Valid

Source: Data Processor With SmartPLS 3.3.3, 2023

Table 7 describes the value of the loading factor (convergent validity) of each indicator. The loading factor value > 0.7 can be said to be valid. This shows that all loading factor values

from the Entrepreneurship Education (X) indicators, Online Business Readiness and Digital Marketing Literacy (Z) are greater than 0.7. This shows that the indicators are valid.

Discriminant validity

It is a cross loading factor value that is useful for knowing whether the construct variable has adequate discriminant, namely by comparing the loading value on the intended construct variable, it must be greater than the loading value with other constructs (Hussein, 2015; Ghozali and Latnan, 2015). The following shows the results of cross loading of each variable

Table 8.
Validity Test Results for Entrepreneurship Education Using Cross Loading

	Online Business (Y)	Digital Marketing Literacy (Z)	Entrepreneurship Education (X)
X1	0,551	0,460	0,814
X2	0,542	0,394	0,815
X3	0,516	0,366	0,808
X4	0,524	0,424	0,811
X5	0,493	0,363	0,739
X6	0,465	0,348	0,782

Source: Data Processing With PLS, 2023

Based on Table 8 above, Entrepreneurship Education has a higher loading factor value than Digital Marketing Literacy and Online Business Readiness so that it can be said that each indicator on the Entrepreneurship Education variable is discriminantly valid, i.e. each construct indicator is not highly correlated with other constructs (Digital Literacy Marketing and Online Business Readiness) used in measuring in this study.

Table 9.
Validity Test Results for Online Business Readiness Using Cross Loading

	Online Business (Y)	Digital Marketing Literacy (Z)	Entrepreneurship Education (X)
Y1	0,817	0,577	0,574
Y10	0,765	0,590	0,407
Y11	0,751	0,540	0,544
Y12	0,771	0,571	0,532
Y2	0,741	0,605	0,541
Y3	0,744	0,546	0,420
Y4	0,747	0,551	0,448
Y5	0,771	0,523	0,367
Y6	0,728	0,492	0,508
Y7	0,714	0,539	0,457
Y8	0,803	0,591	0,539
Y9	0,723	0,627	0,515

Based on Table 9 above, Online Business Readiness has a higher loading factor value than Entrepreneurship Education and Digital Marketing Literacy so that it can be said that each indicator in the Online Business Readiness variable is discriminantly valid, i.e. each construct indicator is not highly correlated with other constructs (Education Entrepreneurship and Digital Marketing Literacy) are used in measuring in this study.

Tabel 10.
Digital Marketing Literacy Validity Test Results Using Cross Loading

	Online Business (Y)	Digital Marketing Literacy (Z)	Entrepreneurship Education (X)
Z1	0,640	0,818	0,436
Z2	0,565	0,758	0,401
Z3	0,596	0,808	0,362
Z4	0,670	0,842	0,459
Z5	0,562	0,754	0,468
Z6	0,544	0,733	0,353
Z7	0,586	0,790	0,307
Z8	0,455	0,733	0,261

Based on the table above, Digital Marketing Literacy has a higher loading factor value than Entrepreneurship Education and Online Business Readiness so that it can be said that each indicator in the Digital Marketing Literacy variable is discriminantly valid, that is, each construct indicator is not highly correlated with other constructs (Entrepreneurship Education and Online Business Readiness) which are used in measuring in this study.

Reliability Test

An instrument is said to be reliable if it has Average Variance Extracted (AVE) > 0.5, Composite Reliability > 0.7 and Cronbach Alpha > 0.7 for each construct (Ghozali and Latan, 2015). The following in the table is the result of reliability testing.

Table 11.
Reliability Test Results

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	Information
Online Business (Y)	0.932	0.933	0.941	0.573	Reliabel
Digital Marketing Literacy (Z)	0.908	0.913	0.925	0.609	Reliabel
Entrepreneurship Education (X)	0.884	0.886	0.912	0.632	Reliabel

Evaluation of the measurement model with the square root of average variance extracted is to compare the AVE root value with the correlation between constructs. If the

AVE root value is higher than the correlation value between the constructs, then good discriminant validity is achieved. In addition, an AVE value greater than 0.5 is highly recommended. Based on the values in Table 4.14, all values have fulfilled the Average Variance Extracted (AVE) requirements > 0.5 so that it can be said that the variables of Entrepreneurship Education, Online Business Readiness and Digital Marketing Literacy in the evaluation of model measurements have good discriminant validity.

Hypothesis Testing

Based on the results of the outer model and inner model tests that have been carried out, the outer model and inner model have met the requirements for hypothesis testing. Through calculations with SmartPLS 3.0 software. the following model is obtained.

Figure 1. Path Diagram of The Theoretical Research Model
Source: Data Processing With PLS, 2023

Based on the results of the direct and indirect influence tests that have been carried out in this study. The following is a summary of the overall hypothesis test results presented in Table 12.

Table 12.
Hypothesis Test Results

	Path Coefficient	t-Statistics	P-Value	Information	Significancei	Mediation Type
H1	0.562	8.612	0.000	Accepted	Signifikan	-
H2	0.370	5.587	0.000	Accepted	Signifikan	-
H3	0.496	8.417	0.000	Accepted	Signifikan	-
H4	0.279	6.521	0.000	Accepted	Signifikan	Partial Mediation

Source: Data Processing With PLS, 2023

Information:

H1: Entrepreneurship Education (X) has a significant effect on Online Business Readiness (Y).

H2: Entrepreneurship Education (X) has a significant effect on Digital Marketing Literacy (Z).

H3: Digital Marketing Literacy (Z) has a significant effect on Online Business Readiness (Y).

H4: Entrepreneurship Education (X) has a significant effect on Online Business Readiness (Y) which is mediated by Digital Marketing Literacy (Z).

Discussion

The Influence of Entrepreneurship Education (X) on Online Business Readiness (Y) of MSMEs in Malang Raya

The results of path analysis using the SmartPLS software in testing the first hypothesis show that the Entrepreneurship Education variable has a significant positive effect on Online Business Readiness. These results are in line with previous research by Prabhu, (2019) and Oo et al., (2018) who found that there were differences between those who only attended entrepreneurship education theoretically, and those who attended entrepreneurship education with a practical orientation. Those who attend entrepreneurship education are theoretically more often shocked by the real world, unprepared to compete and unprepared for failure. While those who follow entrepreneurship education with a practical orientation, even though they lack theory, are accustomed to failure, are not afraid to try and are ready to start over after failing.

The results of this study indicate that the better the entrepreneurship education, the higher the online business readiness of MSMEs in Malang Raya. The indicator of entrepreneurship education that plays the most role is that MSME actors in Malang Raya have businesses from their own experience/self-taught. The more MSMEs in Malang Raya who have businesses by learning from their own experience/self-taught, the better the readiness to run a business online. Self-employment experience is an entrepreneurship education with a practical orientation that makes business actors ready to compete and ready for failure and not afraid to try and ready to start over after failure.

The Influence of Entrepreneurship Education (X) on Digital Marketing Literacy (Z) for MSMEs in Malang Raya

The results of path analysis using the SmartPLS software in testing the second hypothesis show that the entrepreneurship education variable has a significant positive effect on digital marketing literacy. The better the entrepreneurship education, the higher the digital marketing literacy. By increasing entrepreneurship education, business actors will be able to develop their business, be able to apply the theories obtained to the reality of the business they are undertaking. Business actors are also able to analyze risks, can read broader business opportunities and understand market needs.

Gunawan & Sulaeman, (2020); Mishra et al., (2017); K. T. Smith, (2011); and Vieira et al., (2019) emphasized that digital literacy is the ability to understand and use various information from digital devices effectively and efficiently in various contexts such as

academics, careers, and everyday life. Digital literacy according to (Zhu, 2019) is the ability to use information and communication technology to discover (ICT), evaluate, utilize, create, and communicate content or information with cognitive, ethical, social, emotional, and technical or technological aspects. Then in research (da Silveira et al., 2021; Ritz et al., 2019; Ryan & Jones, 2009) confirms that digital literacy can also be interpreted as a form of interest, attitude and individual ability to use digital technology and communication tools to access, manage , integrate, analyze and evaluate information, build new knowledge, create and communicate with others in order to participate effectively in society.

The Effect of Digital Marketing Literacy (Z) on Online Business Readiness (Y) in MSMEs in Malang Raya

The results of path analysis using the SmartPLS software in testing the third hypothesis show that the digital marketing literacy variable has a significant positive effect on online business readiness. The higher digital marketing literacy, the higher the online business readiness of MSMEs in Malang Raya. The digital marketing literacy indicator that plays the most role is a business idea without capital. Most business actors have business ideas without capital or small capital. Digital marketing allows businesses to have businesses without capital, such as becoming resellers, affiliate programs, article writers and so on. Increasing digital marketing capabilities will further increase the readiness of MSMEs in Malang Raya to do business online.

The digital marketing literacy skills of MSMEs in Malang Raya in terms of creating content on social media still need to be improved, because this indicator has the lowest role. Most business people don't really understand how to create content on effective social media. By increasing understanding of how to create content on effective social media, the readiness to run a business online will be even better. In line with the statement above Becker & Schmid, (2020); Bejaković & Mrnjavac, (2020) stated that the internet is a physical network of globally connected computer devices. In the era of modern society like now, the internet is used as the first alternative source of information that can be accessed by someone to meet the need for certain information. Based on current developments, researchers can conclude that information and communication technology has helped a lot in increasing social and economic activities, one of which is using online business, which has an important role as a media or supporting facility to search for information and communicate precisely and accurately. 4.4 The Effect of Entrepreneurship Education (X) on Online Business Readiness (Y) Through Digital Marketing Literacy (Z) for MSMEs in Malang Raya

Based on the results of the hypothesis testing that has been carried out, it shows that there is a significant influence between entrepreneurship education which can create positive digital marketing literacy so that it is able to create online business readiness for MSME actors in Malang Raya. This means that good entrepreneurship education can increase digital marketing literacy and can create online business readiness.

Hernández-Sánchez et al., (2019) Entrepreneurial education makes humans have the capacity to carry out creative activities, create their own businesses, or work with companies

in the context of meeting their life needs which include primary, social, and so on. This means that education must make individuals have entrepreneurial capacity or competence. As (Cho & Lee, 2018) states that entrepreneurial capacity can be built with education. In other words, entrepreneurship education will become a means or tool for creating human resources to develop economic systems and business success (Bazkiaei et al., 2020; Hasan et al., 2020; Vyas & Vyas, 2019; Yang & Kim, 2020) .

Conclusion

This research was conducted with the aim of knowing the effect of entrepreneurship education on online business readiness through digital marketing literacy for MSMEs in Malang Raya. Based on the research that has been done, the following conclusions are obtained: It is known that entrepreneurship education can increase the online business readiness of MSME players in Malang Raya, so that the better the entrepreneurship education, the greater the online business readiness. It is known that entrepreneurship education can increase the digital marketing literacy of MSMEs in Malang Raya, so that the better entrepreneurship education can increase digital marketing literacy.It is known that digital marketing literacy can increase the online business readiness of MSMEs in Malang Raya, so that higher digital marketing literacy can increase online business readiness. It is known that entrepreneurship education can improve online business readiness through digital marketing literacy of MSMEs in Malang Raya. Online business readiness can be increased with good quality entrepreneurship education supported by good digital marketing literacy.

References

Agarwal, S., Ramadani, V., Gerguri-Rashiti, S., Agrawal, V., & Dixit, J. K. (2020). Inclusivity of entrepreneurship education on entrepreneurial attitude among young community: evidence from India. *Journal of Enterprising Communities*, *14*(2), 299–319. https://doi.org/10.1108/JEC-03-2020-0024

Al-Kwifi, O. S., Tien Khoa, T., Ongsakul, V., & Ahmed, Z. U. (2020). Determinants of female entrepreneurship success across Saudi Arabia. *Journal of Transnational Management*, *25*(1), 3–29. https://doi.org/10.1080/15475778.2019.1682769

Appio, F. P., Frattini, F., Petruzzelli, A. M., & Neirotti, P. (2021). Digital Transformation and Innovation Management: A Synthesis of Existing Research and an Agenda for Future Studies. *Journal of Product Innovation Management*, *38*(1), 4–20. https://doi.org/10.1111/jpim.12562

Aulia, N. A. (2021). *Enterpreneurship literacy, Digital literacy, Business continuity*.

Bazkiaei, H. A., Heng, L. H., Khan, N. U., Saufi, R. B. A., & Kasim, R. S. R. (2020). Do entrepreneurial education and big-five personality traits predict entrepreneurial intention among universities students? *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1801217

Becker, W., & Schmid, O. (2020). The right digital strategy for your business: an empirical analysis of the design and implementation of digital strategies in SMEs and LSEs. *Business Research*, *13*(3), 985–1005. https://doi.org/10.1007/s40685-020-00124-y

Bejaković, P., & Mrnjavac, Ž. (2020). The importance of digital literacy on the labour market.

Employee Relations, *42*(4), 921–932. https://doi.org/10.1108/ER-07-2019-0274

Bernárdez, M. (2008). Achieving Business Success by Developing Clients and Community: Lessons from Leading Companies, Emerging Economies and a Nine Year Case Study. *Performance Improvement Quarterly*, *18*(3), 37–55. https://doi.org/10.1111/j.1937-8327.2005.tb00340.x

Blut, M., Yee, A. Y. L., Chong, L., Tsigna, Z., & Venkatesh, V. (2021). Meta-analysis of the unified theory of acceptance and use of technology. *Journal of the Association for Information Systems, Forthcoming*, *23*(1), 13–95. https://aisel.aisnet.org/jais/vol23/iss1/10

Chaffey, A. D., & Bosomworth, D. (2013). *Digital marketing strategy Planning Template Digital marketing strategy Planning Template*. *January*.

Cho, Y. H., & Lee, J.-H. (2018). Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, *12*(2), 124–134. https://doi.org/10.1108/apjie-05-2018-0028

Cueto, L. J., Frisnedi, A. F. D., Collera, R. B., Batac, K. I. T., & Agaton, C. B. (2022). Digital Innovations in MSMEs during Economic Disruptions: Experiences and Challenges of Young Entrepreneurs. *Administrative Sciences*, *12*(1). https://doi.org/10.3390/admsci12010008

da Silveira, A. B., Levrini, G. R. D., & Ertz, M. (2021). How Digital Platforms Materialize Sustainable Collaborative Consumption: A Brazilian and Canadian Bike-Sharing Case Study. *Journal of International Consumer Marketing*, *0*(0), 1–21. https://doi.org/10.1080/08961530.2021.1907828

Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *The Lancet Infectious Diseases*, *20*(5), 533–534. https://doi.org/10.1016/S1473-3099(20)30120-1

Gianiodis, P. T., & Meek, W. R. (2020). Entrepreneurial education for the entrepreneurial university: a stakeholder perspective. *Journal of Technology TransferGianiodis, P. T., & Meek, W. R. (2020). Entrepreneurial Education for the Entrepreneurial University: A Stakeholder Perspective. Journal of Technology Transfer, 45(4), 1167–1195. Https://Doi.Org/10.1007/S10961-019-09742-Z*, *45*(4), 1167–1195. https://doi.org/10.1007/s10961-019-09742-z

Gunawan, G. G., & Sulaeman, M. (2020). Determining Factors in the Use of Digital Marketing and Its Effect on Marketing Performance in the Creative Industries in Tasikmalaya. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *3*(3), 2543–2550. https://doi.org/10.33258/birci.v3i3.1239

Hägg, G., & Gabrielsson, J. (2020). A systematic literature review of the evolution of pedagogy in entrepreneurial education research. *International Journal of Entrepreneurial Behaviour and Research*, *26*(5), 829–861. https://doi.org/10.1108/IJEBR-04-2018-0272

Hasan, M., Musa, C. I., Arismunandar, Tahir, T., Azis, M., Rijal, S., Mustari, & Ahmad, M. I. S. (2020). How does Entrepreneurial Literacy and Financial Literacy Influence Entrepreneurial Intention in Perspective of Economic Education. *International Research Association for Talent Development and Excellence*, *12*(1), 5569–5575.

Henrekson, M., & Sanandaji, T. (2017). Schumpeterian Entrepreneurship in Europe Compared to Other Industrialized Regions. *IFN Working Paper*, *1170*.

Hernández-Sánchez, B. R., Sánchez-García, J. C., & Mayens, A. W. (2019). Impact of Entrepreneurial Education Programs on Total Entrepreneurial Activity: The Case of Spain. *Administrative Sciences*, *9*(1), 25. https://doi.org/10.3390/admsci9010025

Hidayat, R. H. (2020). Langkah-Langkah Strategis Untuk Mencegah Pandemi Covid-19 Di

Lembaga Pemassyarakatan Indonesia. *Jurnal Pendidikan Kesehatan*, *9*(1), 43–55.

Honig, B. (1998). What determines success? Examining the human, financial, and social capital of Jamaican microentrepreneurs. *Journal of Business Venturing*, *13*(5), 371–394. https://doi.org/10.1016/S0883-9026(97)00036-0

Jasra, J., Khan, M., Hunjra, A., Rehman, R., & Azam, R. (2010). Determinants of business success of small and medium enterprises. *International Journal of Business and Social Science*, *2*(20), 274–280.

Jena, P. K. (2020). Impact of Pandemic COVID-19 on Education in India. *International Journal of Current Research (IJCR)*, *August*. https://doi.org/10.31235/osf.io/2kasu

Kandpal, V., & Mehrotra, R. (2019). Financial inclusion: The role of fintech and digital financial services in India. *Indian Journal of Economics and Business*, *18*(1), 95–104.

Kaushik, M. (2020). The Impact of Pandemic COVID -19 in Workplace. *European Journal of Business and Management*, *June*, 8–18. https://doi.org/10.7176/ejbm/12-15-02

Kisubi, M. K., & Korir, M. (2021). Entrepreneurial Training and Entrepreneurial Intentions. *SEISENSE Journal of Management*, *4*(3), 73–84. https://doi.org/10.33215/sjom.v4i3.638

Kitsios, F., & Kamariotou, M. (2021). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability (Switzerland)*, *13*(4), 1–16. https://doi.org/10.3390/su13042025

Kozielski, R. (2019). Determinants of SMEs business success – emerging market perspective. *International Journal of Organizational Analysis*, *27*(2), 322–336. https://doi.org/10.1108/IJOA-02-2018-1343

Kurdi, B. Al, Alshurideh, M., Akour, I., Alzoubi, H. M., Obeidat, B., & Alhamad, A. (2022). The role of digital marketing channels on consumer buying decisions through eWOM in the Jordanian markets. *International Journal of Data and Network Science*, *6*(4), 1175–1185. https://doi.org/10.5267/j.ijdns.2022.7.002

Lestari, P., & Saifuddin, M. (2020). Implementasi Strategi Promosi Produk Dalam Proses Keputusan Pembelian Melalui Digital Marketing Saat Pandemi Covid'19. *Jurnal Manajemen Dan Inovasi (MANOVA)*, *3*(2), 23–31. https://doi.org/10.15642/manova.v3i2.301

Lynch, M., Kamovich, U., Longva, K. K., & Steinert, M. (2021). Combining technology and entrepreneurial education through design thinking: Students' reflections on the learning process. *Technological Forecasting and Social Change*, *164*(June 2019), 119689. https://doi.org/10.1016/j.techfore.2019.06.015

Machali, I., Wibowo, A., Murfi, A., & Narmaditya, B. S. (2021). From teachers to students creativity? the mediating role of entrepreneurial education. *Cogent Education*, *8*(1). https://doi.org/10.1080/2331186X.2021.1943151

Mardhia, D., Kautsari, N., Syaputra, L. I., Ramdhani, W., & Rasiardhi, C. O. (2020). Penerapan Protokol Kesehatan Dan Dampak Covid-19 Terhadap Harga Komoditas Perikanan Dan Aktivitas Penangkapan. *Indonesian Journal of Applied Science and Technology*, *1*(9), 80–87.

Mishra, K. E., Wilder, K., & Mishra, A. K. (2017). *Digital literacy in the marketing curriculum : Are female college students prepared for digital jobs ?* https://doi.org/10.1177/0950422217697838

Mutanda, M., & Moyo, S. (2021). a Lateral View on Entrepreneurial Literacy and the Role of Tertiary Institutions: a Case Study of South Africa. *Academy of Accounting and Financial Studies Journal*, *25*(4), 1–15.

Nisa, C., & Pramesti, D. A. (2020). *How Do Effective Digital Marketing and Brand Ambassador*

Stimulate Purchase Intention Today? *436*, 365–367. https://doi.org/10.2991/assehr.k.200529.075

Nur Nabihah Mohd Nizari, Mohd Khairezan Rahmat, Siti Zuraida Maaruf, & Siti Maftuhah Damio. (2019). Examining the use behaviour of augmented reality technology through Marlcardio: Adapting the UTAUT Model. *Asian Journal of University Education*, *15*(3), 198–210.

O'Connor, A. (2013). A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes. *Journal of Business Venturing*, *28*(4), 546–563. https://doi.org/10.1016/j.jbusvent.2012.07.003

Olson, E. M., Olson, K. M., Czaplewski, A. J., & Key, T. M. (2021). Business strategy and the management of digital marketing. *Business Horizons*, *64*(2), 285–293. https://doi.org/10.1016/j.bushor.2020.12.004

Omar, A. M., & Atteya, N. (2020). The Impact of Digital Marketing on Consumer Buying Decision Process in the Egyptian Market. *International Journal of Business and Management*, *15*(7), 120. https://doi.org/10.5539/ijbm.v15n7p120

Pérez-Bustamante, G. (2014). Developing Entrepreneurial Literacy at University : A Hands-on Approach. *International Journal of Multidisciplinary Comparative Studies*, *1*(2), 57–75.

Prabhu, J. J. (2019). A Study on Entrepreneurship Education and Entrepreneurial Attitude in Malaysia – The Relationship between Employment and Unemployment Analysis. *International Journal of Trend in Scientific Research and Development*, *Volume-3*(Issue-3), 840–842. https://doi.org/10.31142/ijtsrd23028

Purbasari, R., Muttaqin, Z., & Sari, D. S. (2021). Digital Entrepreneurship in Pandemic Covid 19 Era: The Digital Entrepreneurial Ecosystem Framework. *Review of Integrative Business and Economics Research*, *10*(S1), 114–135. https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-1077286

Redjeki, F., & Affandi, A. (2021). Utilization of Digital Marketing for MSME Players as Value Creation for Customers during the COVID-19 Pandemic. *International Journal of Science and Society*, *3*(1), 40–55. https://doi.org/10.54783/ijsoc.v3i1.264

Rita Amelinda, K. N. N. M. (2020). The Propensity for Social Entrepreneurship During the Coronavirus Outbreak. *Jurnal Manajemen*, *24*(2), 174. https://doi.org/10.24912/jm.v24i2.637

Ritz, W., Wolf, M., & McQuitty, S. (2019). Digital marketing adoption and success for small businesses: The application of the do-it-yourself and technology acceptance models. *Journal of Research in Interactive Marketing*, *13*(2), 179–203. https://doi.org/10.1108/JRIM-04-2018-0062

Ryan, D., & Jones, C. (2009). *Understanding Digital Marketing : Marketing Strategies for Engaging the Digital Generation*. *4*, 384–387.

Sang, D., & Lin, J. (2019). How does entrepreneurial education influence the entrepreneurial intention of college students: The moderating and mediating effects of entrepreneurial alertness. *International Journal of Emerging Technologies in Learning*, *14*(8), 139–157. https://doi.org/10.3991/ijet.v14i08.10408

Saura, J. R. (2021). Using Data Sciences in Digital Marketing: Framework, methods, and performance metrics. *Journal of Innovation and Knowledge*, *6*(2), 92–102. https://doi.org/10.1016/j.jik.2020.08.001

Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing*, *19*(6), 489–499. https://doi.org/10.1080/0965254X.2011.581383

Sopiyan, P. (2022). Pengaruh Digital Marketing dan Kualitas Pelayanan Terhadap Keputusan Pembelian. *Coopetition : Jurnal Ilmiah Manajemen*, *13*(2), 249–258. https://doi.org/10.32670/coopetition.v13i2.1057

Technology, C. (2014). *Using the UTAUT model to analyze students ' ICT adoption Samuel NiiBoi Attuquayefio Methodist University College , Ghana Hillar Addo University of Professional Studies , Ghana*. *10*(3), 75–86.

Venkatesh, V. (2022). Adoption and use of AI tools: a research agenda grounded in UTAUT. *Annals of Operations Research*, *308*(1–2), 641–652. https://doi.org/10.1007/s10479-020-03918-9

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). *Quarterly*. *27*(3), 425–478.

Verma, D. (2018). *A Critical Review of Digital Marketing Digital Marketing View project Financial Reforms View project*. *8*(10), 321–339.

Vieira, V. A., de Almeida, M. I. S., Agnihotri, R., da Silva, N. S. D. A. C., & Arunachalam, S. (2019). In pursuit of an effective B2B digital marketing strategy in an emerging market. *Journal of the Academy of Marketing Science*, *47*(6), 1085–1108. https://doi.org/10.1007/s11747-019-00687-1

Vyas, V., & Vyas, R. (2019). Human Capital, its Constituents and Entrepreneurial Innovation: A Multi-Level Modeling of Global Entrepreneurship Monitor Data. *Technology Innovation Management Review*, *9*(8), 5–17. https://doi.org/10.22215/timreview/1257

Wardana, L. W., Narmaditya, B. S., Wibowo, A., Mahendra, A. M., Wibowo, N. A., Harwida, G., & Rohman, A. N. (2020). The impact of entrepreneurship education and students' entrepreneurial mindset: the mediating role of attitude and self-efficacy. *Heliyon*, *6*(9), e04922. https://doi.org/10.1016/j.heliyon.2020.e04922

Yang, J.-H., & Kim, C. (2020). The Effect of Entrepreneurship Education on Entrepreneurial Intention. *The Korean Academic Association of Business Administration*, *33*(3), 443–461. https://doi.org/10.18032/kaaba.2020.33.3.443

Younis, A., Xiaobao, P., Nadeem, M. A., Kanwal, S., Pitafi, A. H., Qiong, G., & Yuzhen, D. (2021). Impact of positivity and empathy on social entrepreneurial intention: The moderating role of perceived social support. *Journal of Public Affairs*, *21*(1). https://doi.org/10.1002/pa.2124

Zhu, G. (2019). Precision Retail Marketing Strategy Based on Digital Marketing Model. *Science Journal of Business and Management*, *7*(1), 33. https://doi.org/10.11648/j.sjbm.20190701.15