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### Analysis of Sustainability of Culinary MSMEs through Increasing Competitiveness as an Intervening Variable

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Business Motivation; Business Sustainability; Digital Literacy; Education; Entrepreneurship Literacy; Increasing Competitiveness

#### **Abstract**

This study aims to identify the influence of education, business motivation, entrepreneurial literacy and digital literacy on the sustainability of culinary MSMEs in Makassar City which is mediated by increasing competitiveness. This study was conducted with a quantitative approach. Data collection techniques through observation and questionnaires while sample determination using purposive sampling which is adjusted to the analysis requirements used with a sample size of 180 respondents. The data analysis technique is Structural Equation Modeling (SEM) with Partial Least Square (PLS). This study found that the variables of education, business motivation, entrepreneurial literacy and digital literacy have an effect on the sustainability of culinary MSMEs in Makassar City which is mediated by increasing competitiveness. The results of this study serve as a reference that education and business motivation are very necessary in entrepreneurship and business actors also need to increase their knowledge of entrepreneurial literacy and digital literacy for the sustainability of MSMEs, especially in the culinary sector.

### How to Cite

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#### INTRODUCTION

Culinary MSMEs make an important contribution to community income because these culinary MSMEs are used as a business opportunity that has the potential to create jobs for the local community (Bachtiar et al., 2023). One of them is in Makassar City. Makassar is a city that has business potential for MSMEs engaged in various (Sari, 2019). However, in the study Giantari et al. (2020) stated that the large number of business actors engaged in the culinary sector is evidence of the tight competition of MSMEs in this sector. Therefore, in order for culinary MSMEs to remain able to face increasingly tight business competition, business actors in this sector must be able to maintain their businesses so that they can continue to be sustainable.

In the last few decades, various researchers have conducted research related to education, business motivation, entrepreneurial literacy, digital literacy and business sustainability (Krstic, 2021; Chen et al., 2017; Seraj et al., 2022; Werber et al., 2015), in their respective studies found that there was a significant relationship between variables. In addition, the study Radovanovcet al. (2020) researching digital literacy on business sustainability in traditional markets, found that digital literacy does not affect business sustainability, but rather because of strategic location and competitive prices. However, there are still few researchers who have conducted research related to the use of competitiveness enhancement variables as mediating variables on business sustainability. Although several variables have been studied previously, this study attempts to identify the influence of education, business motivation, entrepreneurial literacy and digital literacy on the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. In general, various studies only examine the influence of one or two variables, such as education or business motivation, separately on the sustainability of MSMEs. However, the combined influence of education, business motivation, entrepreneurial literacy, and digital literacy is still rarely explored in depth, especially in the culinary sector. Although entrepreneurial literacy is often associated with the success of early businesses, there are still few studies on its impact on the sustainability of these businesses. This focus is important to understand whether entrepreneurial literacy helps culinary MSMEs remain competitive and competitive so that they can be sustainable in the future.

The purpose of this study is to identify how education, business motivation, entrepreneurial literacy and digital literacy influence the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. Thus, the results of MSMEs actors, especially the culinary sector in Makassar City, data on managing their businesses with the principle of sustainability. In order to be sustainable, culinary sector MSMEs need to be competitive. The results of this study can later be utilized both theoretically in the academic world and practically by business actors and by the government as decision makers.

### **METHODS**

The research used is quantitative descriptive. The population in this study is specifically culinary MSMEs actors in Makassar City with a population of 6009 (Ministry of Cooperatives and SMEs, 2021). Sampling using purposive sampling adjusted to the analysis requirements used with a sample size of 180 respondents. The indicators in this study were 18 indicators, so 10 x 18 or 180 samples of culinary MSME actors in Makassar City as respondents. The study was conducted in April-May 2024. In this study, questionnaires were distributed to culinary MSME actors in Makassar City. There were 59 questions from each variable measured using a Likert scale, namely a range of 1-5 with categories (1) Strongly Disagree; (2) Disagree; (3) Neutral; (4) Agree; (5) Strongly Agree. Furthermore, the results of the questionnaire were tested using

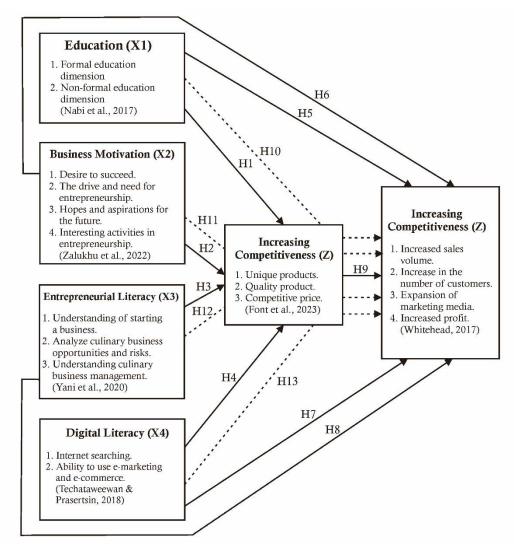


Figure 1. Research Framework

SEM (Structural Equation Modeling) using software Smart PLS and what is tested isdata quality (measurement model), SEM (inner model) and hypothesis testing.

#### **RESULTS AND DISCUSSION**

### **Respondent Characteristics**

The characteristics of respondents in this study are one of the descriptions that describe the personal data of the research respondents, in the form of data from the research sample which amounted to 180 people representing part of the population of culinary MSMEs actors in Makassar City. The characteristics of respondents in this study are various types of age, domicile and gender.

### **Data Analysis and Results**

Data Quality Test (Measurement Model)

Researchers conduct tests related to measurement models or data quality tests using various measurements such as validity tests andreliability.

Table 1. Respondent Data Description

No	Aspect	Fre-	Per-
		quency	centage
1	Gender		
	Man	107	59%
	Woman	73	41%
2	Age		
	15-24 years	18	10%
	25-34 years	32	18%
	35-44 years	58	32%
	45-54 years	49	27%
	55-64 years	23	13%
3	District of Origin		
	Biringkanaya	7	4%
	Bontoala	12	7%

		Ero	Don
No	Aspect	Fre-	Per-
	<b>.</b>	quency	centage
	Makassar	15	8%
	Mamajang	14	8%
	Manggala	11	6%
	Mariso	10	6%
	The Panakkukang	16	9%
	Rappocini	22	12%
	Sangkarrang Islands	5	3%
	Tallo	8	4%
	Tamalanrea	14	8%
	Tamalate	20	11%
	Point of View	9	5%
	Land's End	10	6%
	Wajo	7	4%

Source: Processed Primary Data, 2024

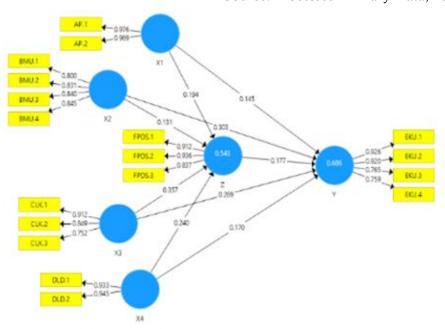


Figure 2. Measurement Model Test Results

Based on the Figure 2, it shows that the variables used in this study, namely education variables (X1), business motivation (X2), entrepreneurial literacy (X3), digital literacy

(X4), increasing competitiveness (Z), and business sustainability (Y) have a loading factor value of >70, so all variables are declared valid.

Table 2. Construct Reliability

Variables	Cronbach's Alpha	Composite Reliability	Caption
X1 (Education)	0.942	0.972	Reliable
X2 (Business Motivation)	0.849	0.898	Reliable
X3 (Entrepreneurial Literacy)	0.79	0.877	Reliable
X4 (Digital Literacy)	0.866	0.937	Reliable
Y (Business Continuity)	0.869	0.909	Reliable
Z (Increasing Competitiveness)	0.877	0.924	Reliable

Source: Processed Primary Data, 2024

Based on Table 2, construct reliability can be concluded that all variables of education (X1), business motivation (X2), entrepreneurial literacy (X3), digital literacy (X4), increasing competitiveness (Z), and business sustainability (Y) have reliable constructs, both Cronbach's alpha and composite reliability have values above 0.70. Thus, all variables are declared reliable in this research model.

### Structural Model Testing

Researchers conducted tests related to the structural model using various measurements such as R-Square and F-Square.

Table 3. R-Square Test Results

Variables	R Square	R Square Adjusted
Y (Business Continuity)	0.686	0.677
Z (Increasing Competitiveness)	0.543	0.533

Source: Processed Primary Data, 2024

Based on Table 3 of the R-Square test results above, it can be concluded that variable Y has an R-Square value of 0.686. This means that 68.6% is influenced by variable X, while 30.4% is influenced by other variables outside those studied and for variable Z it has an R-Square value of 0.543 meaning that 54.3% of entrepreneurial behavior variables are influenced by variable X while 45.7% are influenced

by other variables outside those studied.

Based on Table 4 of the f-Square test results above, it can be concluded that variable X1 has a small effect on variable Z (f2 = 0.127), variable X2 has a small effect on variable Z ( $f^2 = 0.050$ ), variable X3 has a moderate effect on variable Z ( $f^2 = 0.160$ ), the digital literacy variable has a small effect on variable Z ( $f^2 = 0.075$ ), variable X1 has a small effect on variable Y ( $f^2 = 0.139$ ), variable X2 has a moderate effect on variable Y ( $f^2 = 0.206$ ), variable X3 has a small effect on variable Y ( $f^2 = 0.114$ ), variable X4 has a small effect on variable Y ( $f^2 = 0.115$ ) and variable Z has a small effect on variable Y ( $f^2 = 0.115$ ) and variable Z has a small effect on variable Y ( $f^2 = 0.181$ ).

**Table 4.** F-square Test Results

Relationship	F-	
between Variables	square	Information
X1->Z	0.127	Little influence
X2->Z	0.050	Little influence
X3->7.	0.160	Moderate influ-
A5-> L	0.100	ence
X4->Z	0.075	Little influence
X1->Y	0.139	Little influence
X2->Y	0.206 Moderate influence	
<i>X2-&gt;</i> 1		
X3->Y	0.144	Little influence
X4->Y	0.115	Little influence
Z->Y	0.081	Little influence

Source: Processed Primary Data, 2024

Hypothesis Testing

Researchers conducted tests related to hypothesis testing using measurements such as direct effect analysis (path coefficient) and indirect effect analysis (mediation effect).

Hypothesis testing is based on a t-statistic value greater than 1.96. Likewise, the Pvalue (0.000) < (0.05). Likewise, the Original Sample value is positive. Table 5 illustrates that H1 states that it is suspected that X1 influences Z has been proven. This can be seen from the t-statistic value of 2.625, H2 states that it is suspected that X2 influences Z has been proven. This can be seen from the t-statistic value of 1.994, H3 states that it is suspected that X3 influences Z and is proven. This can be seen from the t-statistic value of 4.558, H4 states that it is suspected that X4 influences Z and is proven. This can be seen from the t-statistic value of 3.651,H5 states that it is suspected that X1 influences Y and is proven, H6 states that it is suspected that X2 influences Y and is proven. This can be seen from the t-statistic value of 5.759, H7 states that it is suspected that X3 influences Y, proven. This can be seen from the t-statistic value of 3.488, H8 states that it is suspected that X4 influences Y, proven. This can be seen from the t-statistic value of 2.581, H9 states that it is suspected that Z influences Y, proven. This can be seen from the t-statistic value of 2.230.

The basis used in hypothesis testing is the value obtained fromindirect effect analysiswith the condition of P-Value (0.000) < (0.05) which shows the significance andshows that intervening acts as a mediator. Based on Table 6, H10 which states that it is suspected that X1 has an effect on Y through Z is proven. This can be seen from the t-statistic value of 2.705,H11, which states that it is suspected that X2 has an effect on Y through Z, is proven. This can be seen from the t-statistic value of 1.994,H12, which states that it is suspected that X3 has an effect on Y through Z, is pro-

Table 5. Direct Effect Analysis Test Results

Hypothesis	Standard Deviation	TStatistics ( O/STDEV )	P Values	Caption
X1 -> Z	0.074	2.625	0.005	Sig.
$X2 \rightarrow Z$	0.066	1.994	0.030	Sig.
X3 -> Z	0.078	4.558	0.000	Sig.
X4 -> Z	0.066	3.651	0.000	Sig.
X1 -> Y	0.063	2.405	0.007	Sig.
X2 -> Y	0.056	5.759	0.000	Sig.
X3 -> Y	0.068	3.488	0.000	Sig.
X4 -> Y	0.061	2.581	0.006	Sig.
Z -> Y	0.079	2.230	0.015	Sig.

Source: Processed Primary Data, 2024

Table 6. Indirect Effect Test Results

Hypothesis	Standard Deviation	T Statistics ( O/STDEV )	P Values	Caption
$\frac{3T}{X1 \rightarrow Z \rightarrow Y}$	0.020	2.705	0.005	Sig.
X2 -> Z -> Y	0.015	1.994	0.030	Ü
112 4 2 4 1	515-5	21,7,2		Sig.
X3 -> Z -> Y	0.037	4.873	0.000	Sig.
X4 -> Z -> Y	0.024	2.801	0.004	Sig.

Source: Processed Primary Data, 2024

ven. This can be seen from the t-statistic value of 4.873 and H13 which states that it is suspected that X4 has an effect on Y through Z is proven. This can be seen from the t-statistic value 2.801.

## The Influence of Education (X1) on Increasing Competitiveness (Z) in Culinary MSMEs in Makassar City

From an economic perspective, education is an investment that produces a workforce that is highly knowledgeable and more skilled (Gesthuizen et al., 2017). In increasing this competitiveness, adequate education is needed so that business actors can be more skilled and trained, able to increase innovation and efficiency in entrepreneurship and form businesses that can grow and be sustainable. The first hypothesis test shows that there is an influence of education on increasing the competitiveness of culinary MSMEs in Makassar City. This is in line with research conducted by (Bileviciute et al, 2019; Bhat et al, 2021) explains that the quality of competitiveness is determined by the extent to which a person receives education and training. Education plays a very important role in improving the competence, skills and knowledge needed by business owners to run a business, one of which is increasing business competitiveness through the creation of unique, quality and competitively priced products. This explains that education has an influence on increasing the competitiveness of MSMEs.

## Business motivation (X2) directly affects increasing competitiveness (Z) in culinary MSMEs

A business actor needs business motivation to develop his company in order to compete more effectively with existing competition (Sinyuk et al. 2022). The lack of business motivation of culinary MSME actors affects business development, therefore business motivation is needed in order to create increased business competitiveness so that the business can grow. The results of the second hypothe-

sis show that there is an influence of business motivation on increasing competitiveness in culinary MSMEs in Makassar City. This is in line with research by Chen et al., (2017) Showing that company motivation is positively and significantly related to sustainable competitiveness because with motivation it will form a company that is able to be encouraged to innovate and bring out all the creative ideas it has in order to create sustainable competitiveness. Therefore, business motivation encourages MSME actors to innovate and be creative so that the culinary business they run can survive amidst the many competitions.

## Entrepreneurial literacy (X3) towards increasing competitiveness (Z) in culinary MSMEs

Entrepreneurial literacy is very important in entrepreneurship because business actors need an understanding of entrepreneurship with various constructive, imaginative, and inventive qualities in building business opportunities that are beneficial and profitable for themselves, society, or customers (Culebro et al., 2024). So that later business actors will be able to make themselves have high competitiveness and sensitivity to existing social problems. In increasing competitiveness, business actors need to strengthen the role of innovation in its development, this innovation is obtained from an understanding of entrepreneurship (Hurda et al, 2024). The third hypothesis shows that there is an influence of entrepreneurial literacy on increasing competitiveness. This is in line with the research of Alhadihaq & Ansori, (2022) with the results of the study that entrepreneurial literacy and sustainable business competitiveness influence each other and cannot be separated because entrepreneurs who have low literacy will also have low competitiveness, both in terms of product prices and the uniqueness of the products offered. Therefore, it is important to have entrepreneurial literacy which is used as a guideline in increasing sustainable business competitiveness. Therefore, entrepreneurial literacy is very necessary for business actors to be able to face competition and be able to solve problems in entrepreneurship.

### Digital literacy (X4) towards increasing competitiveness (Z) in culinary MSMEs

Understanding technology can be used as a source of insight obtained from data analysis so that business actors can make smarter decisions (Angel, 2022). Digital literacy is important for business actors in increasing competitiveness that is increasingly digitally connected. The fourth hypothesis states that there is an influence of digital literacy on increasing the competitiveness of culinary MSMEs in Makassar City. This is in line with research (Rizqi Amelia et al., 2022; Ifah, 2023; Diptyana et al, 2022) showing that digital literacy plays an important role in the development of online businesses in the digital era. This contributes to increasing competitiveness because digital literacy allows businesses to use various online platforms. The ability to understand and utilize search algorithms and data analysis allows businesses to increase visibility and attractiveness in the digital market so that these businesses are able to compete. Therefore, digital literacy is very important for business actors, especially in finding and obtaining information that facilitates the formation of creativity and innovation so that businesses are able to compete.

### Education (X1) towards the sustainability of culinary MSMEs (Y)

In entrepreneurship, education is very much needed to encourage business sustainability. Education helps businesses to survive and thrive in a competitive and changing business environment (Maris et al., 2022). Therefore, education is a foundation for sustainable and continuous growth for various types of businesses, including culinary MSMEs. Based on the results of the fifth hypothesis, it states that education has an effect on the sustainability of culinary MSMEs in Makassar City. This is in line with research by Xu et al, (2020) which states that there is an influence between

higher education, economic growth and innovation capabilities that mutually enhance each other. The quality of high education must be improved so that innovation can also increase so that it can realize balanced and sustainable regional development. Therefore, the higher the education, the higher the knowledge will also be so that MSME actors will find it easy to manage their businesses so that they can survive and be sustainable.

### Business motivation (X2) towards the sustainability of culinary MSMEs (Y)

Business motivation is very much needed in entrepreneurship because entrepreneurial motivation is a person's strength in achieving certain goals. Entrepreneurs who have high motivation will tend to be more persistent in facing challenges, more creative in determining business solutions and more committed to long-term visions (Solesvik et al., 2019). Thus, business motivation is a key factor in influencing businesses to survive and continue. Based on the results of the sixth hypothesis, it states that education has an effect on the sustainability of culinary MSMEs in Makassar City. This is in line with Maheshwari's research, (2020); Ojone & Johnpaul, (2022) states that business motivation has a positive and significant influence on business sustainability because business actors who have high motivation will easily produce the best and innovative performance, conversely business actors who have low motivation will have low performance and productivity. Therefore, this business motivation encourages the formation of productivity and innovative entrepreneurship so that the goal of business sustainability can be achieved.

### Entrepreneurial literacy (X3) towards the sustainability of culinary MSMEs (Y)

Entrepreneurial literacy forms various skills needed in entrepreneurship because business owners in a company must have a way to attract buyers to shop at their place (Pauceanu et al., 2021). Therefore, with a good understanding of entrepreneurial litera-

cy, it will encourage business owners to create a structured business plan, complete with good financial calculations, which can be implemented and are appropriate in solving problems (Barrera et al. 2021). The seventh hypothesis shows that there is an influence of entrepreneurial literacy on the sustainability of culinary MSMEs in Makassar City. This is in line with the research of Seraj et al., (2022) that entrepreneurial competence has a significant positive influence on entrepreneurial resilience and sustainable performance of Saudi MSMEs because entrepreneurial resilience and sustainable business come from entrepreneurial competence and knowledge where this is because entrepreneurial competence or entrepreneurial literacy is a precursor to business success. Thus, entrepreneurial literacy plays an important role in providing mastery of the knowledge and skills needed by business actors to survive and thrive in the long term.

### Digital literacy (X4) towards the sustainability of culinary MSMEs (Y)

In entrepreneurship, digital literacy is needed to encourage business sustainability because business actors who have digital understanding will facilitate the application of technology in entrepreneurship will provide many beneficial impacts on the continuity and success of the company. Digital knowledge provides several advantages in running entrepreneurial operations, such as ease of obtaining information, developing networks, and communicating (Kilay et al. 2022). The use of social media can be an effective answer in running a technology-based company (Reddy et al. 2020). The eighth hypothesis shows that there is an influence of digital literacy on business sustainability. This is in line with the research of Werber et al., (2015) that computer literacy or digital literacy contributes to the success of a company because with adequate knowledge and skills in using computers or digital media can be used as a basis for healthy economic growth. Therefore, the understanding and digital skills possessed by entrepreneurs can improve business performance and contribute to business sustainability.

### Increasing competitiveness (Z) towards the sustainability of culinary MSMEs (Y)

In entrepreneurship, increasing competitiveness is very much needed because it is a strategic step in maintaining the existence of sustainable MSMEs. Competitiveness is closely related to productivity which determines the improvement of the standard of living of business actors. At the MSME level, productivity is very dependent on the ability to work together with large companies or other MSMEs to create competitive advantages, as well as proper management, appropriate technology, continuous innovation, attention to quality, value and uniqueness of products and how efficiently the products are produced so that businesses can compete healthily with their competitors (Lu & Bunc, 2020). The ninth hypothesis states that there is an influence of increasing competitiveness on the sustainability of culinary MSMEs in Makassar City. This is in line with researchJames, (2021) that competitiveness has a positive and significant effect on business sustainability because business sustainability will be created if there is an increase in competitiveness through increased knowledge, creativity, innovation and commitment in producing products so that they can become different and innovative solutions that are very important for dealing with problems and utilizing possibilities related to company sustainability. The need to strengthen the competitiveness of the MSME sector must be met while still paying attention to the conditions and business climate that support it to ensure the sustainability of its business in the long term.

# Education (X1) towards the sustainability of culinary MSMEs (Y) through increasing competitiveness (Z)

A person who has a high level of education will make it easier for him to absorb various sources of information and can implement it in everyday life (Sierzchula et al., 2014). Quality education can help create more

innovative and competitive human resources (Del-Aguila et al. 2022). Given the importance of education, it is clear that business owners need to have adequate education because without good education, these business actors will not be easy to manage their businesses. The tenth hypothesis shows that education has an effect on the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. This is in line with research Tien et al. (2020) that micro business owners who have higher education tend to have better business performance and are more competitive in the market. Training initiatives can improve micro business performance in terms of creativity, productivity, and overall performance.so that it can determine the sustainability of the business. In addition, research Aleksejeva et al., (2016) found that there was an influence education towards the Global Competitiveness Index 4.0 shows that improving the quality of skills can contribute to increasing the competitiveness of an economy and thus achieving sustainable development.

# Business motivation (X2) towards the sustainability of culinary MSMEs (Y) through increasing competitiveness (Z)

Entrepreneurial motivation is a drive to complete work, start and develop a company because it can be done with pleasure (Hermundsdottir et al., 2021). Motivation and ambition in a company can have an impact on increasing competitiveness, resource allocation, and overall responsibility management (Tan et al., 2022). So that entrepreneurs who want to realize their entrepreneurial goals can be motivated and increase their competitiveness which is oriented towards business sustainability and long-term business success. The eleventh hypothesis shows that business motivation influences the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. This is in line with research Munteanu et al. (2020) found that business motivation, entrepreneurial interest and MSME performance are determining factors for business sustainability because motivation is one of the driving factors for perseverance, creativity and innovation in determining business sustainability. In addition, the study Streimikiene et al. (2021) explains that business motivation is an important thing in competitiveness because motivation drives business actors to achieve higher levels of performance, innovate and continuously strive to increase the competitive advantage of the business.

# Entrepreneurial literacy (X3) towards the sustainability of culinary MSMEs (Y) through increasing competitiveness (Z)

Today's business competition is quite tight, therefore, it requires every company to compete with each other in a healthy way so that they can maintain their business (Lopes et al., 2022). Therefore, in entrepreneurship, an understanding of entrepreneurship is needed in order to be able to create good competitive capabilities so that businesses can develop and be sustainable. In this entrepreneurial literacy, it stimulates the creation of increased competitiveness, namely by producing products that are unique or different from others, quality products and products that have competitive prices (Font et al., 2023). The twelfth hypothesis shows that business motivation influences the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. This is in line with research Orobia et al. (2020) found that entrepreneurial literacy has a positive effect on business competitiveness because entrepreneurial literacy forms a creative and innovative mindset so that it is highly competitive. In addition, the research Achievement, (2024) explains that by increasing entrepreneurial literacy, entrepreneurs can optimize their business operations and create long-term business value so that they can survive and continue. Therefore, entrepreneurial literacy has the potential to form increased competitiveness so that businesses can achieve competitive advantage in determining business development and sustainability.

# Digital literacy (X4) towards the sustainability of culinary MSMEs (Y) through increasing competitiveness (Z)

In facing an ever-changing environment and increasing competition, business actors must understand digital literacy (Anatan, 2023). MSMEs that digitize their products or goods can, among other things, increase their marketing reach and simplify the transaction process so that the use of time and costs becomes more effective and efficient (Aditya, 2021). This will have an impact on increasing the competitiveness and sustainability of MSME businesses. The thirteenth hypothesis shows that digital literacy has an effect on the sustainability of culinary MSMEs in Makassar City which is mediated by increased competitiveness. This is in line with researchK-MAithal, (2023) found that entrepreneurs have carried out digitalization of their businesses which is useful for adapting to current market conditions and also maintaining their existence in business competition. In addition, research Muh (2024) explains the need for digital literacy in developing MSMEs in the digital era, so that the understanding and skills of MSME actors can support increased business competitiveness and contribute to business resilience. Therefore, it is very important for business actors to have an understanding, ability and digital literacy in order to be able to maintain business sustainability.

#### **CONCLUSION**

Based on the results of the analysis and discussion above, it can be concluded that the variables of education, business motivation, entrepreneurial literacy and digital literacy have an effect on the sustainability of culinary MSMEs in Makassar City, both directly and mediated by increasing competitiveness. Through the findings of this study, in practice, special education and training for culinary MSMEs need to be improved so that they are better prepared and have good knowledge to run a business sustainably. From the government aspect, it is necessarydevelop programs that can increase the motivation of culinary

MSME entrepreneurs. This can be in the form of access to capital, awards for outstanding MSMEs, and mentoring networks. Given the importance of entrepreneurial and digital literacy for competitiveness, the city government or related institutions can facilitate training to help MSMEs adapt to technology, such as digital marketing, online order management, and sales data analysis.

The limitations of the study are limited to only culinary sector MSMEs. Of course, further research is needed on other MSME sectors such as fashion, service sector, tourism and others.

#### REFERENCES

Angeles, I. T. (2022). The Moderating effect of Digital and Financial Literacy on the Digital Financial Services and Financial Behavior of MSMEs. *Review of Economics and Finance*, 20(January), 505–515. https://doi.org/10.55365/1923.X2022.20.57

Bachtiar, I. H., Gafur, G., Supiati, S., Bachtiar, A. D., & Hasan, A. (2023). Pemberdayaan Masyarakat Pemula UMKM Mie Basah Kelurahan Paccerakkang Kota Makassar Melalui Digitalisasi. *Jurdimas (Jurnal Pengabdian Kepada Masyarakat) Royal*, 6(4), 583–589. https://doi.org/10.33330/jurdimas.v6i4.2722

Barrera Verdugo, G., & Villarroel Villarroel, A. (2021). Measuring the association between students' exposure to social media and their valuation of sustainability in entrepreneurship. *Heliyon*, 7(6), e07272. https://doi.org/10.1016/j.heliyon.2021.e07272

Bhat, S., Gijo, E. V., Rego, A. M., & Bhat, V. S. (2021). Lean Six Sigma competitiveness for micro, small and medium enterprises (MSME): an action research in the Indian context. *TQM Journal*, 33(2), 379–406. https://doi.org/10.1108/TQM-04-2020-0079

Bileviciute, E., Draksas, R., Nevera, A., & Vainiute, M. (2019). Competitiveness in higher education: The case of university management. *Journal of Competitiveness*, 11(4), 5–21. https://doi.org/10.7441/joc.2019.04.01

- Born Green via Digital: Increasing MSME's Competitiveness and Sustainability A Facilitators' Reflection on the G20 Policy Toolkit James Zhan and Massimo Meloni 1 25. (2021). October, 1–10.
- Del-Aguila-Arcentales, S., Alvarez-Risco, A., Jaramillo-Arévalo, M., De-La-cruz-diaz, M., & Anderson-Seminario, M. de las M. (2022). Influence of Social, Environmental and Economic Sustainable Development Goals (SDGs) over Continuation of Entrepreneurship and Competitiveness. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 73. https://doi.org/10.3390/joitmc8020073
- Dinas Koperasi dan UMKM, K. M. (2021). Dokumen Rancangan Renstra Tahun 2021 2026.
- Gesthuizen, M., Solga, H., & Künster, R. (2011). Context matters: Economic marginalization of low-educated workers in cross-national perspective. *European Sociological Review*, 27(2), 264–280. https://doi.org/10.1093/esr/jcq006
- Giantari, G. A. K., Setini, M., & Rekarti, E. (2020). The Business Performance of Culinary Sector: A Study of SMEs Sector in Bali. VIII(4), 184–196.
- Hurdawaty, R., & Tukiran, M. (2024). Strategies to Increase the Competitiveness of Micro, Small and Medium Enterprises (MSMEs):

  A Narrative Literature Review. South Asian Journal of Social Studies and Economics, 21(1), 112–125. https://doi.org/10.9734/sajsse/2024/v21i1768
- K. M., M., Aithal, P. S., & K. R. S., S. (2023). Government initiatives and digital Innovation for Atma Nirbhar MSMEs/SMEs: To Achieve Sustainable and Inclusive Economic Growth. *International Journal of Management, Technology, and Social Sciences*, January, 68–82. https://doi.org/10.47992/ijmts.2581.6012.0256
- Kilay, A. L., Simamora, B. H., & Putra, D. P. (2022). The Influence of E-Payment and E-Commerce Services on Supply Chain Performance: Implications of Open Inno-

- vation and Solutions for the Digitalization of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 119. https://doi.org/10.3390/joitmc8030119
- Lopes, J. M., Gomes, S., Pacheco, R., Monteiro, E., & Santos, C. (2022). Drivers of Sustainable Innovation Strategies for Increased Competition among Companies. *Sustainability (Switzerland)*, 14(9), 1–18. https://doi.org/10.3390/su14095471
- Lu, S., & Bunchapattanasaakda, C. (2020). Influence of Entrepreneurial Social Network on the Competitiveness and the Growth of MSMEs Based on the Theory of Structural Hole. *International Journal of Development Research*, January. https://doi.org/10.37118/ijdr.19046.07.2020
- Maris, H., Kusumastuti, R., Mursidin, M., Railis, H., Suhaida, D., & Yuliana, Y. (2022). Improving Financial Literacy in Msmes Through Bookkeeping Training and Literacy Education. *International Journal of Engagement and Empowerment (IJE2)*, 2(1), 109–115. https://doi.org/10.53067/ije2.v2i1.53
- Muhammad Dairobi, & Anisah, H. U. (2024). Influence of Digital Literacy, Customer Intimacy, and Brand Image on Competitive Advantage. *Open Access Indonesia Journal of Social Sciences*, 7(3), 1506–1516. https://doi.org/10.37275/oaijss.v7i3.243
- Munteanu, A. I., Bibu, N., Nastase, M., Cristache, N., & Matis, C. (2020). Analysis of practices to increase the workforce agility and to develop a sustainable and competitive business. *Sustainability (Switzerland)*, 12(9). https://doi.org/10.3390/SU12093545
- Ojone, J., & Johnpaul, E. (2022). Entrepreneurial passion and business sustainability of micro, small and medium enterprises (MSMEs) in Plateau State. *International Journal of Advanced Academic Research* |, ISSN(4), 2488–9849.
- Orobia, L. A., Tusiime, I., Mwesigwa, R., & Ssekiziyivu, B. (2020). Entrepreneurial

- framework conditions and business sustainability among the youth and women entrepreneurs. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(1), 60–75. https://doi.org/10.1108/APJIE-07-2019-0059
- Pauceanu, A. M., Rabie, N., Moustafa, A., & Jiroveanu, D. C. (2021). Entrepreneurial leadership and sustainable development— a systematic literature review. *Sustainability (Switzerland)*, 13(21). https://doi.org/10.3390/su132111695
- Radovanovic, D., Holst, C., Banerjee Belur, S., Srivastava, R., Vivien Houngbonon, G., Le Quentrec, E., Miliza, J., Winkler, A. S., & Noll, J. (2020). Digital literacy key performance indicators for sustainable development. *Social Inclusion*, 8(2), 151–167. https://doi.org/10.17645/si.v8i2.2587
- Raihan, A. (2024). A review of the digitalization of the small and medium enterprises (SMEs) toward sustainability. *Global Sustainability Research*, 3(2), 1–16. https://doi.org/10.56556/gssr.v3i2.695
- Reddy, P., Sharma, B., & Chaudhary, K. (2020). Digital literacy: A review of literature. *Inter-*

- national Journal of Technoethics, 11(2), 65–94. https://doi.org/10.4018/IJT.20200701.oa1
- Sari, N. A. (2019). Pengaruh Perkembangan Ekonomi Digital Terhadap Pendapatan Pelaku Usaha Umkm Di Kota Makassar. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Solesvik, M., Iakovleva, T., & Trifilova, A. (2019).

  Motivation of female entrepreneurs: a cross-national study. *Journal of Small Business and Enterprise Development*, 26(5), 684–705. https://doi.org/10.1108/JS-BED-10-2018-0306
- Streimikiene, D., Svagzdiene, B., Jasinskas, E., & Simanavicius, A. (2021). Sustainable tourism development and competitiveness: The systematic literature review. *Sustainable Development*, 29(1), 259–271. https://doi.org/10.1002/sd.2133
- Tien, N. H., Anh, D. T., Luong, M. Van, Ngoc, N. M., Doan, L., & Duc, M. (2020). Sustainable Development of Higher Education: A Case of Business Universities in Vietnam. *Journal of Hunan University (Natural Sciences)*, 47(12).