Analysis of digital financial literacy and social environment on the interest in using e-money among college students

Yuniman Zebua, Sukma Hoviva Rambe[*]

Faculty of Economics and Business, Labuhanbatu University, North Sumatra, Indonesia

ARTICLE INFORMATION	ABSTRACT
	Most of the use of e-money for Indonesians is a legal tender for the primary transactions in Indonesian business activities. The purpose of the study was to determine the partial and simultaneous effects of whether digital financial literacy and social environment variables are the most successful variables affecting interest in using e-money. The sample in the study of students in Semesters II and IV of the Management Study Program, Faculty of Economics and Business, Labuhanbatu University, amounted to 81 people after being calculated by the Slovin formula. This study adopts multiple linear regression analysis. The results of this study, partially and simultaneously, show that the variables of digital financial literacy and social environment affect the interest in using e-money among Semester II and IV students of the Management Study Program of the Faculty of Economics and Business, Labuhanbatu University.

INTRODUCTION

The presence of e-money in human life is not fully understood wisely by every human being on this earth, this statement was made by (Vlasov, 2017) that the concept of electronic money is somewhat ambiguous, meaning that the ambiguity is the difficulty of someone often understanding the accounting system for public and private rights to electronic currency. However, this statement does not threaten the decline of e-money users in the world. According to Statista data (Buchholz, 2024) India is the country in the world with the highest e-money transaction value (real-time) reaching $25.5 followed by China and South Korea. Although Indonesia is not included in the e-money transactions of 10 countries in the world, the data on e-money transactions from the same source in 2022 the value of e-money transactions reached 1.177 trillion. The data illustrates that Indonesian people seem to be accustomed to and familiar with the use of e-money.

According to (Brimantyo et al., 2021) the results show that the e-money era has a significant effect on business growth in Indonesia. Most Indonesians use e-money as legal tender for the main transactions in Indonesian business activities. Likewise, e-money is not only used by those who are involved in business but e-money is used as a tool for fulfilling needs as according to (Prayoga & Rakhmaddian, 2022) that the factors of trust, convenience, security and features are the reasons students use e-money. Contrary studies according to (Viviana & Mulyono, 2022) that perceived convenience, usefulness and trust have a negative effect on students using e-money. Although there are two different views from the results of the studies referred to regarding the existence of e-money, the results are actually a comparison of views to explore the real phenomenon beyond these factors.

As a phenomenon of research on the development of e-money in the world, India as the country with the largest e-money transaction value illustrates that Indian society is very literate with the existence of e-money. This means that there is a good understanding in the minds of the public regarding e-money so that e-money is easily accepted by the public. The same thing also happened in Indonesia where in 2022 the value of e-money transactions reached Rp 1.177 trillion and in 2023 the value of e-money reached Rp 58.47 trillion. From this data, it further illustrates that Indonesian people have similarities with those experienced by the world community, who are literate in changes and developments, especially the Z generation using e-money. According to (Sanny et al., 2023) that e-money can be a useful tool for the greater good of global financial inclusion.

The author finds several strong indications from previous research that the factors of convenience, benefits, trust, real time and so on are the main factors for the use of e-money. However, the author has a different view that before generation Z decides or uses e-money there are several other reasons that need to be developed and studied into focused and accurate research. From this analysis, the author finds that generation Z uses e-money because digital financial literacy or knowledge is quite good as according to (Hong Shan et al., 2014). (Hong Shan et al., 2023) there is a growing awareness of the importance of education and financial literacy will affect a person's personal economy. He emphasized the importance of financial education to help them set clear financial usage goals in the future. Research (Pramawati et al., 2023) This literacy education is a very important enrichment for students amid the rapid innovations that occur regarding digital financial trends.

The existence of ambiguous indications or confusion regarding the important implementation of e-money for gen Z is a necessity for the author to conduct an empirical study, where the trend of digital finance by gen Z is still dominated not based on motivation and purpose but a mere consumptive. Therefore, the purpose of this research is to find out the digital financial literacy and social environment among gen Z in using e-money. The expected finding of this research is that the author hopes to find crucial factors or phenomenal reasons for gen Z to use e-money as a necessity or consumptive. Therefore, this study took a sample of students from the Faculty of Economics and Business, Labuhanbatu University, who are also intellectuals who are expected to help provide information to researchers to solve research problems.

LITERATURE REVIEW
Digital Financial Literacy

Financial literacy is needed by everyone because financial literacy should be the basic knowledge of everyone to avoid financial problems. Financial difficulties are not caused by low levels of income, but financial difficulties can occur if the allocation is wrong such as not having a financial planner, financial management, using credit incorrectly, and not having savings. According to (Selvan et al., 2018) Digital financial literacy is direct knowledge related to online purchases, online payments of various means, and online banking systems. According to (Ratnawati et al., 2018) Financial literacy is the ability to understand to achieve a good level of understanding, so that behavioral understanding, and expertise are things that affect financial literacy. According to (Sugiharti & Maula, 2019) the first and basic thing that needs to be understood in financial literacy is knowing financial products such as banking, insurance, capital markets and various other financial institutions. Indicators of digital financial literacy according to (Al-barokah & Hamim, 2023) namely general financial knowledge, financial management knowledge, knowledge of value and knowledge of risk.

Social Environment

Social environment according to (Ariyanti & Fitriana, 2017) is defined as the physical conditions and social atmosphere in which humans live and something that happens and develops. The social environment can be a cultural form of teaching or personal experience or can be an institution that interacts with individuals. The social environment as a form of attitude or behavior relationship between humans and the relationship between humans and surrounding humans. The social environment is all individuals, groups, organizations and systems with which a person comes into contact. (Zaltron et al., 2022). According to (Ariyanti & Fitriana, 2017) The social environment is other people or humans who influence us. Direct influences such as daily interactions with other people, with our family, our friends, school friends, or work colleagues. While influences that cannot be through radio and television, by reading books, magazines, newspapers, and so on in other ways. The following are indicators of the social environment according to (Sugiharti & Maula, 2019) namely family, reference group and social role and status.

User Interests

Interest is described as a person's situation before taking action which can be used as a basis for predicting this behavior or action, it can be said that interest is a mental statement from the user that reflects a plan to use a number of products with a certain brand. According to (Ningsih et al., 2016) that interest is a person's desire for something, interest is an aspect of personality that describes a person's willingness to take action. According to (Sapara, 2016) states that behavioral interest is defined as the level of how strong a person's interest is in doing certain behaviors. Meanwhile, according to (Kotler & Keller, 2012) found that interest is an impulse that arises, the ease of being interested in trying, eventually wanting to buy or use it. Interest, namely as a person's situation before taking action which can be used as a basis for knowing the action or behavior that will be carried out. The following are indicators of user interest according to (Ferdinand, 2006) namely: transactional interest, referential interest, preferential interest and exploratory interest.

Research Framework

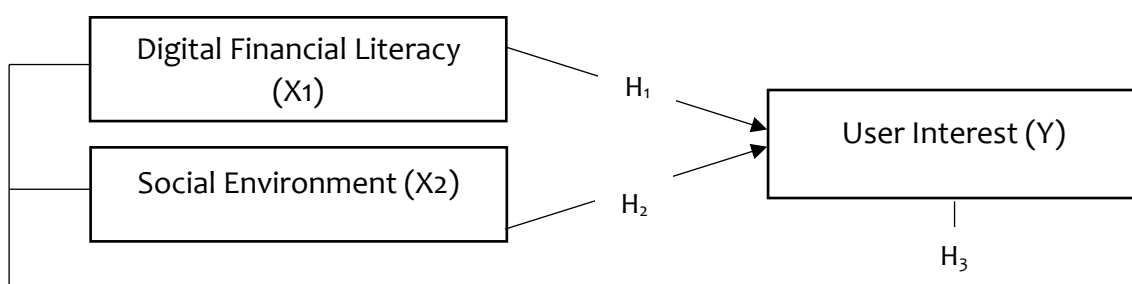Based on the theory described above, the research model can be described as follows:

Figure 1. Conceptual Framework

RESEARCH HYPOTHESIS

The hypotheses proposed in this study based on the framework include:

H_1 : Digital financial literacy partially affects interest in using e-money.

H_2 : The social environment partially affects the interest in using e-money.

H_3 : Digital financial literacy and social environment simultaneously affect the interest in using e-money.

RESEARCH METHODS

This research uses a type of quantitative research with descriptive methods. And the approach used in this research is survey research. Because the information contained in this study was collected by taking a sample from one population, and the data collection tool used a questionnaire. Quantitative research is research by obtaining data in the form of numbers. The descriptive method is a systematic problem-solving process by describing a study in accordance with the reality of a sign of subjectivity. Population According to (Sihotang et al., 2022) is the entire research subject. If the research wants to examine all its elements in the research area, the research is population research. The population used is students in semester II and IV of the Management Study Program, Faculty of Economics and Business, Labuhanbatu University, totaling 437 people.

This study uses the Slovin formula used to find the minimum number of samples from a limited population or also known as a finite population survey.

$$n = \frac{N}{1 + N(e)^2}$$

Description
n = Number of Samples required
N = Total population
e = Desired error rate (10%)
If the desired error rate (e) is 10%
N = 437 then the number of samples studied are:

$$n = \frac{N}{1+N\,(e)^2}$$

$$n = \frac{437}{1+437\,(0,1)^2}$$

$$n = \frac{437}{1+4,37}$$

$$n = \frac{437}{5,37}$$
s
n = 81.3780260708 rounded to 81

From these calculations it can be seen that the number of samples used in this study was 81 people. More specifically, this study uses purposive sampling technique, which is a sampling technique based on certain considerations. (Sari, 2018) such as students of the Management Study Program, Faculty of Economics and Business, Labuhanbatu University who use e-money. The data collection technique used in this research is primary data (Questionnaire). Primary data is data obtained directly through distributing questionnaires using google from which is distributed online. This research data analysis technique uses primary data (questionnaire) and data analysis techniques using multiple linear regression analysis, validity and reliability tests and classical assumption tests.

RESULTS AND DISCUSSION
Data Instrument Test

The purpose of the instrument test is to prove that the instrument meets the validity and reliability requirements. The results of the validity instrument test are as follows:

Table 1. Validity Test

Variables	Indicator	Validity Test	
		R tabel Value	Interpretation
Digital Financial Literacy (X1)	General financial knowledge	0,360	Valid
	Financial management knowledge	0,360	Valid
	Knowledge of value	0,360	Valid
	Knowledge of risk	0,360	Valid
Social Environment (X2)	Family	0,360	Valid
	Reference group	0,360	Valid
	Social role and status	0,360	Valid
User Interests (Y)	Transactional interest	0,360	Valid
	Referential interest,	0,360	Valid
	Preferential interest	0,360	Valid
	Explorative interest	0,360	Valid

Source: Primary Data 2024

Based on Table 1, it is known that all indicators have a value of r-count (*Corrected Item-Total Correlation*)> r-table of 0.360 so that they can be declared valid.

Table 2. Reliability Test

Variables	Cronbach's Alpha (CA)	Alpha Value	Status
Digital Financial Literacy (X)$_1$	0,666	0,6	Reliable
Social Environment (X)$_2$	0,675	0,6	Reliable
User interest (Y)	0,706	0,6	Reliable

Source: Primary Data 2024

Based on Table 1 and Table 2 above, it is known that the reliability test results have a value of r-count (*Cronbach's Alpha*)> r-table of 0.600 so that it can be declared reliable and used in research.

Classical Assumption Test

After testing the data instrument, what is done is to carry out a classical assumption test consisting of normality test, multicollinearity test, and heteroscedasticity test as follows:

Normality Test

The normality test aims to test whether the residuals in the regression model follow a normal distribution or not, a good regression model is a model where the residuals follow a normal distribution. The method used to test normality in this study is the normal probability plot.
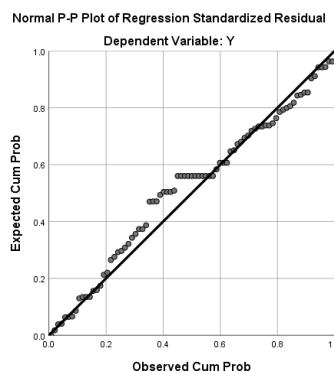

Figure 2. Normal P-Plot

Based on the normality test with the Normal probability plot, it can be seen that the points follow the line, which is an indication that the data in this study is normal.

Multicollinearity Test

Table 3. Multicollinearity Test
Coefficientsª

		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Digital Financial Literacy	.885	1.130
	Social Environment	.885	1.130

a. Dependent Variable: User-interest
Source: Primary Data 2024

Based on the output of the Tolerance value owned by the Digital Financial Literacy and Social Environment variables of 0.855> 0.10, while the VIF value on the Digital Financial Literacy and Social Environment variables is 1.130 < than 10, it can be concluded that there are no multicollinearity symptoms in the regression model.

Heteroscedasticity Test

The method that can be used to detect symptoms of heteroscedasticity in this study is the graph method. Heteroscedasticity in the regression model can be seen from the plot graph between the predicted value of the dependent variable (ZPRED) and its residuals (SRESID), The presence or absence of heteroscedasticity symptoms can be known in two ways, including:
a. If the scatter of data in the form of dots forms a certain and regular pattern, then there is a heteroscedasticity problem,
b. If the data scatter in the form of dots does not form a certain pattern and spreads above and below the Y axis, then there is no heteroscedasticity problem.
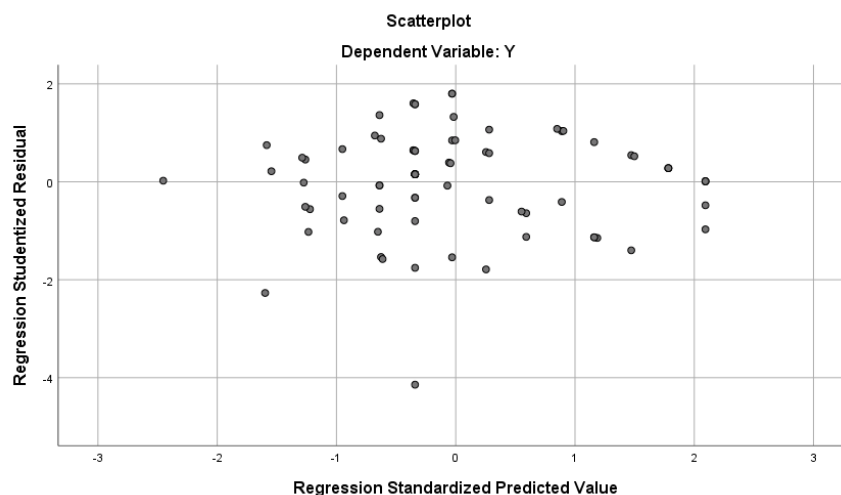

Figure 3. Scatterplot Graph
Source: Primary Data 2024

Based on the picture above, it can be seen that the black dots spread and do not form a certain pattern, which means that there are no symptoms of heteroscedasticity.

Multiple Linear Analysis Test

The multiple linear equation in this study can be seen in the *Unstandardized Coefficients* column or precisely in column B (*betha*) as follows:

Table 4. Multiple Linear Regression Equation Results
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1 (Constant)	1.509	2.392	
Digital Financial Literacy	.526	.122	.397
Social Environment	.549	.128	.393

a. Dependent Variable: User-interest

Source: Primary Data 2024

Based on Table 4 above, the multiple linear regression analysis output obtained above the equation value obtained is:

$$Y= 1.509+0.526X_1 +0.549X_2$$

Then the equation can be explained as follows:

1. The constant value obtained is 1.509 with a positive sign, this states that if the variables of Digital Financial Literacy (X_1), Social Environment (X_2) can be said to be constant, the value of Y is 1.509.
2. The acquisition of the value of the Digital Financial Literacy variable (X_1) of 0.526 is positive, this states that if the Digital Financial Literacy variable (X_1) increases by one unit with the presumption that other variables are constant so that User Interest (Y) will increase.
3. The acquisition of the value of the Social Environment (X_2) of 0.549 is positive, this states that if the Social Environment variable (X_2) increases by one unit with the presumption that the other variables are constant so that User Interest (Y) will increase.

Hypothesis Test

The hypothesis testing consists of t test, simultaneous test and coefficient of determination which will be described as follows:

Table 5. Partial Test (T Test)
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.509	2.392		-.631	.530
Digital Financial Literacy	.526	.122	.397	4.319	.000
Social Environment	.549	.128	.393	4.280	.000

a. Dependent Variable: User-interest

Source: Primary Data 2024

Based on the partial regression test output table (T test) above, the calculated T value of each variable is as follows:

1. In the digital financial literacy variable (X_1), the calculated T value is 4.319 < T table 1.985 and the sig value is 0.000 < 0.05. So it can be said that the digital financial literacy variable has a positive and significant effect on user interest (Y).

2. In the social environment variable (X_2), the calculated T value is 4.280 < T table 1.985 and the sig value is 0.000 < 0.05. So it can be said that the social environment variable (X_2) has a positive and significant effect on user interest (Y).

Simultaneous Test

Table 6. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	249.193	2	124.597	27.985	.000[b]
Residuals	347.276	78	4.452		
Total	596.469	80			

a. Dependent Variable: User-interest
b. Predictors: (Constant), Social Environment, Digital Financial Literacy
Source: Primary Data 2024

Based on the output table of the simultaneous regression test (F test), the calculated F value is 27.985> F table 3.94 and the significance value is 0.000 <0.05, it can be said that Digital Financial Literacy (X_1) and Social Environment (X_2) simultaneously have a significant positive effect on User Interest (Y).

Discussion

From the hypothesis testing conducted that digital financial literacy affects the interest in using e-money among students / Semester II and IV of the Management Study Program of the Faculty of Economics and Business, Labuhanbatu University. The results of this study strongly support research (Anggriani, A., Rosmiati, R., & Yaldi, 2023) that financial literacy affects the interest in using e-money among Jambi University students. This means that students in various universities already have good digital financial literacy as a millennial generation in the future, these students are the consumers or users of e-money. This event certainly provides a tendency that in the future non-cash payments or transactions will increasingly dominate because it provides convenience.

From the hypothesis testing carried out that the social environment affects the interest in using e-money among students / Semester II and IV of the Management Study Program of the Faculty of Economics and Business, Labuhanbatu University. The results of this study strongly support research (Christyorini, 2018) that the social environment is a good variable that affects interest in using e-banking, he added that a person's interest is basically the acceptance of a relationship between oneself and something outside oneself and the closer the relationship, the greater the interest and the social environment factor is one of the determinants. This means that students in Semester II and IV of the Management Study Program, in addition to having good literacy, also have social associations that support activities.

From the hypothesis testing carried out that digital financial literacy and the social environment simultaneously influence the request to use e-money among students / Semester II and IV of the Management Study Program of the Faculty of Economics and Business, Labuhanbatu University. The results of this study strongly support research (Satoto & Putra, 2021) that the two independent variables are the variables that most often provide support for interest in using e-money and e-banking at this time not only among students but the wider community both urban and regional have recognized the concept of digital payments such as e-money.

CONCLUSIONS

The conclusion of this study has successfully tested the hypothesis that partially and simultaneously digital financial literacy and social environment variables are the most successful variables in influencing interest in using e-money. In addition, the indicators used in this study also allow a great influence. The suggestion from this research is of course that sampling among students is too frequent so that broad and even sampling can be considered as a research development.

LITERATURE

Al-barokah, P., & Hamim, A. (2023). *Hamin.A 2023-(The effect of digital financial literacy and trust on impulsive buying with religiosity as a variable)*.

Anggriani, A., Rosmiati, R., & Yaldi, D. (2023). The Effect of Financial Literacy and Advertising on Interest in Using E-Money on Jambi University PIPS Students Class of 2020. *Journal of Economic Education, 2*(1), 54-60. https://repository.unja.ac.id/

Ariyanti, A., & Fitriana, R. (2017). EFL students' difficulties and needs in essay writing. *International Conference on Teacher Training and Education 2017 (ICTTE 2017)*, 32-42.

Brimantyo, H., Suwandaru, A., Ratri, A. M., Nugraha, G. I. K., & Firdaus, M. R. (2021). The Role of E-money on Business Growth in Indonesia. *Journal of Business and Management, 8*(2), 405-411. https://doi.org/10.26905/jbm.v8i2.7091

Buchholz, A. (2024). *Chart_ Moving Money Faster_ World Leaders in Real-Time Payments_ Statista*.

Christyorini, K. A. (2018). The effect of parents' income level and social environment on interest in using electronic banking. *Journal of Economic Education, 7*(5), 430-438.

Ferdinand, A. (2006). *Management Research Methods: Research Guidelines for Writing Thesis and Desrtasi of Management Science*.

Hong Shan, L., Cheah, K. S. L., & Leong, S. (2023). Leading Generation Z's Financial Literacy Through Financial Education: Contemporary Bibliometric and Content Analysis in China. *SAGE Open, 13*(3), 1-18. https://doi.org/10.1177/21582440231188308

Kotler, P., & Keller, K. L. (2012). *Marketing management 14th edition*. Pearson education.

Ningsih, S., Aly, A., & Wibowo, A. (2016). *Efforts of Islamic Religious Education Teachers in Applying the Role Playing Method to Form Akhlakul Karimah in Students of SMP Muhammadiyah 10 Surakarta in the 2014/2015 Academic Year*. University of Muhammadiyah Surakarta.

Pramawati, I., Putri, K. M. D., & Mulyawan, I. P. A. (2023). Financial Education on the Benefits and Risks of Using Fintech for Generation Z at Instiki. *Journal of Scientia, 12*(3), 2629-2635. http://infor.seaninstitute.org/index.php/pendidikan/article/view/1596%0Ahttp://infor.sea ninstitute.org/index.php/pendidikan/article/download/1596/1297

Ratnawati, T., Mujanah, S., & Lokajaya, N. (2018). *Program design and Financial Literacy Action Plan towards Financial Intelligence Household small industries of the tourist district of East Java Crunch*.

Sanny, L., Chandra, G. R., Chelles, K., & Santoso, L. A. (2023). the Impulse Buying of Gen Z When Using E-Wallet in Indonesia. *Journal of Applied Engineering and Technological Science, 5*(1), 88-100. https://doi.org/10.37385/jaets.v5i1.2600

Sapara, T. U. (2016). Antibacterial effectiveness of water henna (impatiens balsamina l.) leaf extract against porphyromonas gingivalis growth. *Pharmacon, 5*(4).

Sari, A. W. (2018). INFLUENCE OF TELLER SERVICE QUALITY ON LOYALTY OF IB HASANAH SAVINGS AT BNI SYARIAH KANTOR KAS JATINANGOR. *Journal of Maps (Sharia Banking Management), 1*(2), 1-11.

Satoto, S. H., & Putra, H. N. K. (2021). The Effect of Financial Literacy and other Determinants on the Intention to Use Electronic Money: Consumer Behavior as a Mediation Variable. *International Journal of Applied Business and International Management, 6*(3), 23-34.

https://doi.org/10.32535/ijabim.v6i3.1326

Selvan, L. D. N., Danda, R., Madugundu, A. K., Puttamallesh, V. N., Sathe, G. J., Krishnan, U. M., Khetan, V., Rishi, P., Prasad, T. S. K., & Pandey, A. (2018). Phosphoproteomics of retinoblastoma: a pilot study identifies aberrant kinases. *Molecules*, *23*(6), 1454.

Setyo Prayoga, R. A., & Nicko Nur Rakhmaddian. (2022). Development of Factors Affecting the Use of E-Money (Case Study of Students in Ponorogo Regency). *Jae (Journal of Accounting and Economics)*, *7*(1), 1-10. https://doi.org/10.29407/jae.v7i1.17110

Sihotang, H., Ahiruddin, A., & Mustakim, S. (2022). Work Motivation and Work Discipline Influence on Employee Performance (Case study: At the Regional Development Planning Agency of Tulang Bawang Regency). *Proceedings of the National Seminar on Economics and Business*, *2*(1), 288-293.

Sugiharti, H., & Maula, K. A. (2019). The effect of financial literacy on student financial management behavior. *Accounthink: Journal of Accounting and Finance*, *4*(2).

Viviana, N., & Mulyono, K. B. (2022). Determinants of students e-money intention empirical studies of Semarang State University students. *Proceedings of the 2nd International Conference of Strategic Issues on Economics, Business and, Education (ICoSIEBE 2021)*, *204*(ICoSIEBE 2021), 315-320.

Vlasov, A. V. (2017). The Evolution of E-Money. *European Research Studies*, *XX*(1), 215-224.

Zaltron, A., Ferraro, D., Meggiolaro, A., Cremaschini, S., Carneri, M., Chiarello, E., Sartori, P., Pierno, M., Sada, C., & Mistura, G. (2022). Optofluidic platform for the manipulation of water droplets on engineered LiNbO3 surfaces. *Advanced Materials Interfaces*, *9*(22), 2200345.