

Financial Sustainability of Msmes in the Market, Based on the Analysis of the Factors that Affect Their Liquidity and the Underlying Risks in Peru

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Abstract

The financial problem in MSMEs is not a novelty, however, knowing which are the real factors that affect the liquidity of these entrepreneurial organizations in a developing country like Peru is a help to guide their activities in this sense, that is why the research focused on discovering according to the perception and experience of the entrepreneurs themselves the real factors that directly affect liquidity. The research is of mixed approach, having conducted interviews with fifty entrepreneurs and applied a questionnaire to thirty-four entrepreneurs having worked in total with eighty-four (84). Having managed to formulate an ordinal logistic regression model that explains 50% of the possibilities that a variation of cash sales to liquidity increases with an Odds of 30.027 times, with a confidence level of 95%. In addition, it was found that factors such as credit sales, bank loans, financial knowledge and stock management are not direct determining factors of low or high liquidity. This information will allow SMEs to focus on sales-generating activities to a large extent to avoid the risk of financial instability.

Keywords: Finance, culture, liquidity, financial instability and factors.

1. Introduction

Economies in the world require sustainable companies that generate value and apply negotiation strategies that enhance financial profitability, and that guarantee sustained and balanced economic growth with the environment, improving the coexistence of people, family groups and members of their community, in short, being sustainable. Consequently, this article focuses on distinguishing the most relevant factors and describing how they affect liquidity in MSMEs, while liquidity and the risks that underlie it, limit their permanence and sustainability in markets such as Latin America that face economic cycles of stability and instability, making them unpredictable. Added to all of these is the political instability experienced by most Latin American countries. In this sense, uncertainty is greater for small organizations recognized in the global economy as entrepreneurial MSMEs (Perez et al., 2021).

The problems shown in this sense are a true reflection of reality, in which an analysis has been made of the determining factors that affect liquidity in organizations and in particular of MSMEs that in many cases due to their size have limitations that affect their growth, development and finally sustainability. (Sarwar et al., 2021) Thus, these small organizations that in many countries sustain a large part of the economy, run a serious risk of collapse to the extent that the obligations they face may be higher than their liquidity levels and in other cases very short-term.

In Latin America there are 12.9 million micro, small and medium-sized enterprises according to Maastricht University, Steadfast Networks and the Latin American and Caribbean Economic System (SELA), in addition to this type of organization due to its quantity and generator of jobs, although not abundant, employ a large number of the population in the country in which they operate. However, its contribution to regional GDP is worrying, representing only 25% in contrast to the European Union, which receives an average share of 56%.

In Peru, according to SELA, in 2021 there are 2,367,735 MSMEs, of which 96 percent are micro enterprises, their importance is measured by their contribution to social economic development, to reducing poverty, to improving employment indicators, and taxation, among others. However, they need to begin to adopt a culture of technical, agile management, especially in the financial

aspect that is their Achilles' heel, a change is urgent to guarantee their existence and sustainability. MSEs represent 21% of GDP and 99% of formal employment, contributing more than 60% to the EAP (El Peruano, May 5, 2023).

On the other hand, MSMEs, from time to time, suffer temporary shocks of lack of liquidity with various consequences that in extreme situations generate bankruptcies as happened during Covid 19, (Pérez, et al. 2021) forcing the intervention of financial support from the government in order to protect those small organizations that were viable in the long term. the lack of this is recognized as a serious obstacle to the growth of MSMEs, which suffer from limited access to working capital, restrictions on short- and long-term credit, growth in costs, weak and incomplete infrastructure, aggravated in many cases by technical financial inexperience and ineffective management. (Pissarides, F. 1999).

In Peru, in terms of state policy, economic reactivation measures are being taken with denominations such as: Productive Punche, Textile Punch and Tourism Punche, supporting with more than 400 million soles at low interest rates and that aim at greater productivity and profitability in MSMEs in these sectors. (El Peruano, May 5, 2023). In the reports of the Superintendence of Banking and Insurance and AFP (2023) "vulnerabilities and risks are reported in the consumer loan portfolio, closing 2023 with a growth of 11.2%. This behavior could be interpreted as a sign that potential risks have accumulated in this portfolio." (p 50). "The non-compliance ratio increased in all income quintiles, which shows that on average all families have been affected by the same situation."

On the other hand, according to the (INEI), in 2023, MSEs registered annual sales of more than S/ 297,000 million, which represents 30% of GDP and employed 12.5 million workers, that is, 72.8% of the employed EAP. It also recognizes that the growth of MSEs in the country has been driven by access to financing provided by institutions specializing in microfinance. As of February 2024, they provide financing to 94% of the total debtors in this segment.

From 2020 to the beginning of 2024, MSEs in our country have been affected in their income-generating capacity as an effect of national and international shocks (breakdown of supply chains -covid-, substantial price increase, Russia and Ukraine war effect, geopolitical tensions and increased financing costs) at the country level there were climatic anomalies due to the coastal El Niño phenomenon, droughts in the south, avian flu and social conflicts at the beginning of the year, (reports from the Superintendence of Banking and Insurance and AFP, 2023 p 54.) As a consequence, according to the same report, only 21% of MSEs consider that their economic situation is better than a year ago. Pessimistic perception of the economic environment.

Specialized Microfinance Institutions (IEMs) are those multi-operation companies whose loan portfolio to MSEs represents more than 50% of their total portfolio, and which in times of crisis such as the COVID-19 pandemic solved the liquidity of MSMEs, which were the ones that suffered the greatest illiquidity in their history due to the reduction of sales to "0". The IEMs are the most affected by the economic contraction that begins in 2020, since MSMEs currently do not yet experience a satisfactory reactivation that allows them liquidity capable of meeting their acquired obligations, even more so when their pessimistic perception of the economy does not allow them to take off.

Finally, for the above, this article tries to answer the question : What factors affect and are decisive in the lack of liquidity in MSMEs, and increase the risk of financial sustainability to stay in the market?

The research is justified in its practical application, as it allows us to identify at a given time situations of illiquidity and high risk in MSMEs that can be very well used to avoid high levels of risk of financial sustainability and permanence in the market.

The article aims to describe what factors affect the lack of liquidity in MSMEs that are determinants, and increase the risk of their financial sustainability to stay in the market. The specific objectives are: 1. to determine the level of incidence of the determining factors on the state of illiquidity in MSMEs. 2. Determine the level of risk to the financial sustainability of MSMEs in the market

2. State of the art

To understand and comprehend the importance of liquidity, its obtainment, use and management in the various business organizations and in particular of MSMEs, we approach its theoretical understanding from the point of view of finance and accounting, in this virtue, According to Ferrell et al. (2010) finance refers to the set of actions that have their relationship with obtaining money and the effective use of it, related to a series of knowledge that exposes how all the financial dynamics work in a company; whether it is large, medium or small. According to Haro and Rosario (2017), "Liquidity is the sufficiency of the financial asset so that it can be transformed into money, before the date on which it matures, without there being considerable losses in value." (p. 139). According to Morales et al (2014), "a company's liquidity measures the sufficiency to meet its current or short-term obligations in a timely manner, so the analysis focuses on current assets and liabilities." (p. 164)- "Therefore, it is necessary to carry out an evaluation to determine the potential of the company to meet its obligations in a time range of less than one year" (p.163), states that the liquidity ratio must be greater than 1, considering that it may be acceptable between 1.5 and 2. In some cases, this indicator reaches 3, indicating that there are non-productive resources that are affecting profitability. If it is less than 1.5 we are in the risk zone, payments must be suspended or decisions must be made according to the business and its context at that time. As can also be seen in what they argue (Sáenz & Sáenz, 2019).

In terms of theoretical understanding, the concept of liquidity arises with the economic thought of Keynesianism, which refers to the rational behavior of people because they have liquid and easily accessible assets (Missaglia & Sánchez, 2020). For Sáenz and Sáenz (2019), liquidity is an indicator, a ratio that measures the strength of the organization to meet its obligations in a short period of time, and within the maturity date. It is the economic solvency that he possesses; It also points out that liquid assets do not have an attractive return for organizations.

In real terms, especially in MSMEs in Latin America, they understand that liquidity is related only to income from sales and consequently this myopia to perceive the true value of the money in circulation leads the entrepreneurial entrepreneur to make a series of management errors. There will always be those who claim to have bad, regular and good income, therefore, The liquidity problem is described by the presence of the following factors:

1. Low levels of cash sales

This is a key factor, insofar as all organizations make sales with characteristics of their own reason for being. Customers stop buying, among other causes, because they do not see better offer options; neglect in loyalty and perhaps, because the business does not make a difference, the analysis becomes objective if we take average sales statistics and see that they show an increasingly significant decline. This phenomenon does not necessarily originate from internal causes, in many cases, it can be the expression of external causes such as a crisis in the economy or as happened in 2000 with the COVID 19 health emergency. (Pérez, et al. 2021), or perhaps; due to the increase in competitors, or the incidence of economic policies at the country level, among others. In this situation, the risk of illiquidity is evident and is aggravated, in the face of the inexperience or lack of preparation of the entrepreneur to assume a technical management of the MSME, constituting a serious limitation to react with various strategies with a tendency to increase sales. (Pizzán, et al 2021). The risk is undeniable if cash is not obtained in immediate periods and obligations such as covering debts or other expenses are faced. MSMEs can enter a process of "asphyxiation". If the impact is severe, and effective financial management decisions are not taken, the following; it will be bankruptcy (Salinas 2021). According to a report published by Muñoz, T (AGICAP April 16, 2024) in 2020 alone, the lack of liquidity of MSMEs grew by 13%, generating needs of 67 billion euros.

2. Excess sales on credit

This factor is very common, while MSMEs in the desire to have greater market penetration, expand sales and spread their image, adopt credit sales as a strategy; This decision generates a higher volume of sales, in exchange, it must expect a slow recovery staggered over time. In other words, cash flow also becomes slow, consequently low and scarce financial resources in the face of the likely requirement to cover increasing operating expenses (Castilla, et al. 2018)

The excess of credit sales places the organization in a risk zone, customers who are late in payment pass through it, or generate a temporary or definitive default that becomes a loss and logically, this situation will affect the value of its assets. It is noted that it is possible to maintain adequate control if we have effective financial management to evaluate, control, reduce or eliminate risks due to unpaid accounts receivable by the customer. Otherwise, if technical financial management criteria are lacking, the risk of illiquidity is more than certain.

3. Provisions for uncollectibles

This is a factor that is generated by extension and as a consequence of maintaining credit sales and inefficient financial control. When sales are on credit, a probable risk of non-payment is generated (Montoya & Benjumea, 2019) that can be prolonged over time, in this case it is required that accounting provisions for uncollectible accounts be generated, consequently, there is an impact on the financial statements. The provisions for uncollectibles, accounting, is a credit account that allows reducing accounts receivable at risk, generates administrative expenses because it is required to implement collection procedures, protests, legal actions, among others. The provision affects the Income Statement because it is considered as a sales expense. The estimated amount of uncollectible accounts is reflected in the Statement of Financial Position by reducing accounts receivable. Provisions that expect the obligation to be fulfilled in the year or before go to current liabilities and those that are fulfilled after 12 months to non-current liabilities. When accounts receivable are significant, they affect liquidity, increase financing costs and bring the organization closer to a risk of instability and possible bankruptcy or closure of the business in the future.

4. Purchases of goods on credit paying high interest, purchases without considering their selective rotation and purchase of volumes of merchandise linked to offers and promotions that ultimately contribute to inventories with high stock in warehouse with zero rotation

On many occasions, MSME entrepreneurs find themselves in the need to buy goods on credit, paying high interest. They affect liquidity to the extent that immediate payment obligations are generated and sometimes there is not time to convert the investment into liquid money.

When there is no effective financial management, purchasing decisions are likely to be made without considering the turnover ratio. Consequently, when you have inventories with high stock and low turnover, you face two risks: on the one hand, the deterioration or expiration of the product and on the other hand, the cost of money in its valuation or opportunity cost, in addition

to the costs represented by storage and labor, product losses and depreciation. In terms of liquidity, inventories are less liquid than accounts receivable. Maintaining high inventories generates high costs and even worse if you have very low turnover rates. Cost is an important factor to be taken into account by financial management to the extent that it affects the profit margin, consequently, also profits and profitability. A commercial organization is liquid to the extent that it can have sufficient cash or capacity to convert these resources into cash and successfully meet its liability obligations in a timely manner at a minimum cost. (Shapiro, 1990, p. 734), Kim, et al (1988).

5. Bank loans for high amounts in the short term with payment of installments and high interest.

When there are problems that affect liquidity, that is, spending more than income, it is necessary to resort to external financing (Chambers & Lacey, 2011, p. 489). As León and Saavedra (2018) point out, financing is related to the "contribution of funds and economic resources necessary for the development of a productive activity, as well as, in order to be able to undertake, also invest in innovative, technological and communication activities, the cost of which is represented by the interest or dividends that must be paid for their use" p.161. according to the World Bank, (2018) Financing makes it possible for organizations to rethink their long-term objectives, cover emergencies or initiate projects with investment or expansion credits to improve their competitiveness. In contrast, if there is no financing of the system, it is possible for organizations to resort to other unregulated alternatives with high costs and great risks (Ortiz & Vizueta, 2019). and if a bank or any financial intermediary is chosen, loans for high amounts should not be accepted to maintain in a certain way financial balance and ability to pay the installments that are generated. They affect liquidity, if the money obtained is not rationally invested; that is, we do not apply to generate value, increase profits, but; to growth investments that may not be profitable and end up seriously affecting the organization. The risk assumed is a lack of liquidity, and probable insolvency, as they have to face delayed payment installments to both the financing company and suppliers, contributing to their fragility by assuming high interest, therefore, more debt. Some researchers see access to credit as a limitation that affects decision-making and investments, slowing down the growth or development of organizations, restrictions that are reflected in a lack of collateral, high costs or interest rates (Castillo, et al. 2016). Likewise, access to and management of credits related to the processes and procedures for accepting the loan application and the management of risks involved constitute a serious limitation. (Majander, 2020). To keep the business organization alive and active, financing is often required, technically understood as the ratio of foreign financing and its total liabilities (Majander, 2020), i.e. payment obligations contracted by the organization with a third party, normally measured through the following indicators: debt capacity, rates and commissions.

6. Debt refinancing

It is clear that, when there is an imbalance between the structure of current assets and current liabilities, deducted from the values that make it up, to maintain that the company has or does not have liquidity; that is, if you have cash available or assets that can immediately be converted into cash, especially when they pressure obligations already agreed upon and in the face of this need you have to resort to requesting refinancing, therefore, generating a new payment schedule, you can extend the terms and even reduce the amount of the installments. Financial management must act with criteria of business sustainability by opting for a refinancing, which does not deteriorate its qualification as a business. The risk is inherent in whether or not refinancing or rescheduling is requested; Both situations will be recorded in the history of the lending entity that normally has to declare to supervisory bodies on the classification of credits, seriously affecting when a potential risk is assigned. In this sense, it is advisable for financial management to anticipate maturities and not wait until they are already due to negotiate. You should prioritize high-interest loan payments, among other financial management strategies (Vargas, et al. 2019)

7. They do not have a precise budget formulated for the payment of obligations

This is a key factor and the liquidity risk it represents is explained by the results of the following paradoxical or contradictory assumption: If an organization maintains a technically elaborate financial management, it has to plan a cash and liquidity position for when the situation requires it or is necessary and the difference or excess does not remain inactive and is generating income in profitable investments (Orellano, J., 2022), (Duque, et al. 2021) In other words, they have a precisely formulated budget for the payment of obligations. Propose and maintain in force what in finance is known as continuous liquidity and protective liquidity, the first that is generated by the dynamic flow of the operations of its mission and the second refers to the ability to adapt to obtain cash in unforeseen situations as related by Ebben and Johnson (2011) when explaining the cash conversion cycle. Nowadays, with technological advances, it is necessary to work with computer systems that allow us to be informed in real time (Banalieva & Dhanaraj, 2019). according to Siigo-Aspel, only 1.2 million MSMEs use accounting software, i.e., one in 10 MSMEs use an enterprise resource planning system (DPL News, 2023).

8. They are unaware of cash flow management and other financial aspects that affect the profitability and liquidity of MSMEs

Financial education or management knowledge is key to efficient business management (Picado & Golovina 2021). Cuesta and Váscones (2021) argue that the first liquidity benchmark is Cash Flow, on its analysis decision-making oscillates between probabilities of maintaining operations, investment or financing, consequently the accounting and financial information must be

clear and timely, on the one hand the statement of the financial situation expressed in the balance sheet, the financial behavior or performance that is visualized in the income statement and liquidity in cash flow (Armijos-Solorzano, et al. 2020). Therefore, having an efficient management of the inflows and outflows of cash flow is vital, likewise, setting payment terms to suppliers, being clear about the dates of credit recovery or collection, acting rationally to avoid purchases of merchandise that is not sold, this knowledge will always allow a balanced management of expenses, purchases, compliance with obligations, among others (Zambrano, et al. 2021)

For Afrifa and Tingbani (2018) in the conclusions of their research suggest that, in case of lack of availability of cash flow, managers should strive to decrease or increase investment in working capital to improve performance. On the other hand, Kontus (2018), from his study in the Republic of Croatia, does not provide empirical evidence that liquidity is negatively related to profitability. Maintaining an adequate balance between liquidity and profitability is important for the financial health of the company Lima, et al (2015), País y Gama (2015).

9. Tax penalties, fines, non-compliance with social laws, among others

In general, all organizations as economic entities have to pay salaries, buy supplies, cancel debts, comply with their tax obligations (Arroba, et al. 2018), (Quispe and Ayaviri 2021) and other business expenses. To meet these obligations you must have liquidity, therefore all liquid assets must be more than your expenses and short-term debts, otherwise they run the risk of being unviable, the economic situation and factors such as inflation in which having cash leads to situations of loss of purchasing power.

3. Research methodology

3.1. Sample size

The research work has been carried out with a set of data obtained from organizations classified as MSMEs that are organizations characterized by their levels of informality, although in the last two years this has been reduced post-pandemic COVID19, according to Comex Peru these organizations represent 96.4% of companies in Peru, of which 48.2% at least in 2022 had at least one formal financial product and a 24% use non-formal savings methods. The number of MSMEs in Peru according to a report by the Ministry of Production (Produce) cited by the newspaper El Peruano in 2023 there are 3,270, 303 micro and small enterprises. On the other hand, according to the business research center of Peru Chambers in Ancash there are 56,849 companies of which 0.2% are large companies, 0.1% are medium-sized, 3% are small companies and 96% are micro enterprises. In addition, a report by Enaho (2022) indicates Ancash as one of the departments with the highest rate of formality of MSMEs. All this meant indicators and criteria to calculate and select the sample for the study, having calculated a sample of 146 elements, with a confidence level of 95% with a permissible error of 0.08, of the total eligible sample, 48.2% of formal organizations were considered, of which only 50 companies have been selected between micro, small and medium-sized based on their location in the city of Chimbote. which have been stratified according to the category and percentage amount. (Comex Perú, 2022)(Diario Oficial el Peruano , 2024)

Table 1

Sample distribution and calculation

Population 56,849.00 MSMEs

Distribution according to activity:

DISTRIBUTION OF MSMEs BY CATEGORY	Activity	Quantity	%	Sample
	Services	27,856.01	49	25
	Production	7,958.86	14	7
	Commerce	19,328.66	34	17
	Production and trade	1,705.47	3	2
TOTAL		56,849.00	100	50

Note. Own elaboration.

The table shows the distribution of the sample in the different strata in which entrepreneurial MSMEs operate in the Ancash Region to apply them by similarity to Chimbote.

3.2. Description, dimension categories and sub categories of the variable

Table 2

VARIABLE	DESCRIPTION	CATEGORY	SUBCATEGORY
<u>Dependent variable</u>			
Financial sustainability of MSMEs	Understood as the sufficiency of inputs and resources that the company has to meet its liquid needs both in the medium and short term	Proper planning	Operational plans, tactical plans and strategic plans
		Cost control	Income and expenditure budget
		Sales Management	Plans, objectives, goals and sales control. Types of sales
		Competitiveness and collaboration	Differentiated offer, distinctive service, collaborative competition
		Responsible decisions	Investments, expenses, hiring, markets, indebtedness
<u>Variable predictor</u>			
Business liquidity of MSMEs	It is the ability of micro, small and medium-sized enterprises to meet their financial obligations in the short term effectively.	Current liquidity	Current assets, current liabilities AC/PC
		Severe liquidity	Current Assets, Inventories, Current Liabilities AC-Ex/PC
		Net Working Capital	Current Assets, Current Liabilities AC-PC

Note: Authors.

3.3. Type, design and research process.

The research was developed under the mixed approach, an interview was carried out with ten (50) micro, small and medium-sized entrepreneurs who operate in the shopping center "La Malvinas" located in the city of Chimbote in the department of Santa in the region of Ancash; Subsequently, to confirm the results obtained through the interviews, thirty-four (34) questionnaires were carried out from seventy (70) businessmen who work in the shopping center, because not all of them work constantly, since about twenty are absent from work indistinctly. Being a mixed approach research, for the qualitative part, the information has been collected and ordered in terms of categories that have been processed to present them as a report in tables that show characteristics with respect to the variables. For the quantitative part, tables of values have been formulated and hypothesis testing has been carried out.

3.4. Scientific rigor of the study

The scientific rigor of the research lies in the possibility of replicating it considering the same objects and subjects, since they are identifiable for any study to verify the results. On the other hand, there is a possibility of latent bias to the extent that the study subjects (entrepreneurs) maintain a prejudice of distrust related to regulatory and tax entities whom they consider a threat, so in some cases their answers are not entirely sincere or open. However, both in the Focus Group and in the application of the questionnaire, we have previously tried to apply the principle of informed consent in order to reduce biases.

3.5. Method of estimation and proof.

Given the nature of the research approach, two methods have been used to achieve results: the first has been the interview technique, having interviewed fifty entrepreneurs and achieved qualitative results that have been translated into percentages, and secondly, the survey technique has been used by applying a questionnaire to forty-seven entrepreneurs, achieving percentage results directly. For the questionnaire applied, considering that the data obtained fit the assumptions to formulate an ordinal logistic regression test.

3.6. Test formulas and models

To calculate the sample size, the following have been used:

Sample size

For a finite population, with a 90% confidence level and a permissible error of 16% with a value of $p = 50\%$

$$n = \frac{Z^2 * p * q * N}{e^2 * (N - 1) + Z^2 * p * q}$$

Where, **Z** is the 90% confidence level that according to the statistical table is 1.96, the value of **p** is the percentage value of formal MSMEs registered in the Chimbote Chamber of Commerce, which amounted to 50% of the total accessible population, **N**, is the population of formal entrepreneurs and finally **e** is the permissible error accepted for this research.

Test method used

Considering that the data meet the assumptions of a logistic regression test, given that the predictor variable is of the continuous categorical type and the dependent variable or results is of the ordinal categorical type (High, medium and low liquidity), in addition there is no multicollinearity > 0.70, likewise the predictor variable is constant with all categories. For this reason, the statistical method of *ordinal logistic regression* has been used, having adapted the data due to the requirements of the test.

4. Results and discussion

4.1 Qualitative analysis

In the first place, the qualitative results that correspond to the fifty interviews carried out with micro, small and medium-sized entrepreneurs in the city of Chimbote are presented, which yielded the results that are set out below:

Table 3

FINANCIAL CULTURE OF MSMES		
QUESTIONS	ANSWERS	%
Do you consider that you have good profits during the month in your business?	<i>Most MSMEs have cyclical sales with constant variations, which affects their liquidity and their profits are low, in few cases they go from less to more.</i>	50% good profits
What do you think is the best financing option to continue and improve your activities?	<i>The culture is oriented towards using the financial services of organizations that give them access to fast loans, without reflection on the interest and conditions of the credit obtained. They mostly use their own resources or informal sources.</i>	48% Municipal Savings Banks, 38% banks and 14% both sources
Do you think that financial institutions put obstacles in the way of granting them money?	<i>The financial paradigm focuses on the fact that banks are much more expensive, inaccessible and unfriendly to MSMEs, except for honorable meanings.</i>	90% put obstacles in the way

Note: Interview with MSMEs - Chimbote

It has been possible to perceive that MSMEs have a financial culture that is characterized by conformity with their profits, which in some cases are low, but are considered good, in the same way their sales are cyclical and tend to decline seasonally, they have a constant need for financing and maintain a paradigm of distrust with banks and large financial institutions. they consider having greater access to the microfinance institutions in which they make their loans, they do not have much care about interest rates and credit conditions, some are self-financing with savings and others go to informal lenders with exorbitant rates.

Table 4

FINANCIAL KNOWLEDGE AND TRAINING		
QUESTIONS	ANSWERS	%
What do you know about finances so you can run your business well?	<i>The vast majority of MSMEs have no financial knowledge, some indicate that they know little and others, all of this is entrusted to the accounting professional</i>	84% have no knowledge

Do you think that a basic knowledge of financial education, such as balance sheet, payment of taxes and others, is necessary to obtain greater economic benefits?	<i>Many see it as important, but most entrust it to accountants and some consider that it is not necessary to have financial knowledge.</i>	80% see it as necessary and 20% are not necessary
Do you set financial goals to achieve during each month?	<i>This aspect is consistent with their previous statements, they are reluctant to financial planning and believe in the accounting professional, the vast majority do not see it as important and less necessary.</i>	98% do not set goals

Note: Interview with MSMEs - Chimbote

It has been observed that the vast majority of the interviewees do not have knowledge about financial aspects, while 84% of them do not have any knowledge, this is consistent with the fact that 80% state that it is necessary to have knowledge, but most of these matters are entrusted to third parties and 98% indicate that they do not propose financial objectives or goals. all this does nothing more than highlight the cognitive deficiencies in finance that definitely greatly affect the liquidity of MSMEs.

4.2. Quantitative analysis

In the quantitative part, an ordinal logistic regression model was applied to test the effect of the variables, cash sales, credit sales, financial loans, inventory levels and financial knowledge on the probability of them occurring from the categories of the liquidity level scale such as high, medium and low. It was found that the model has been very significant $X^2 = 16.78$, $p < 0.001$ and explained 58.6% ($R^2 = 0.586$) of the categories of the dependent variable. The results of the prediction values and the ORs are in Table 5. Specifically, for each additional point on the cash sales scale

Table 5

Logistic Regression Model for the Effect of Financial Culture on the Liquidity of MSMEs in Chimbote-Peru.

Financial culture	B(ES)	p	95% IC para OR		
			Odds Ratio	Inferior	Superior
Cash Sales	3.40 (0.007)	<0.001	30.027	2.549	353.695
Credit sales	-0.41 (0.497)	0.497	0.644	0.181	2.293
Bank loans	-0.09 (0.836)	0.836	0.914	0.388	2.154
High inventories	-0.77 (0.320)	<0.001	0.462	0.101	2.119

Note. Own elaboration.

In the same way, it has been observed that cash sales are the only factor that directly affects liquidity, since for each unit of increase in cash sales there is a probability of 30,027 more that liquidity will have a high positive variation, than that it may fall into a low position. Likewise, the factors of credit sales, bank loans and high inventories did not have significant effects on liquidity ($p > 0.05$). However, it should be noted that when observing the B (ES) values for these three predictor variables, they are negative, which indicates that their directionality is inverse, indicating that in general terms there is a probability that for each value that these factors vary, liquidity would fall towards lower levels of liquidity. This can be seen in Table 6.

Table 6

Table of estimation of parameters for the logistic regression model for the effect of financial culture on the liquidity of MSMEs Chimbote-Peru.

Parameter	B	Desv. Error	95% IC de Wald		Hypothesis testing			Exp(B)		95% Wald IC for Exp(B)	
			Inferior	Superior	Wald's chi-square	Gl	Mr.	Inferior	Superior	Inferior	Superior
Threshold											
[Liquidate Level=1.00]	1.856	3.8548	-5.699	9.412	0.232	1	0.630	6.400	0.003	12228.861	
[Liquidate Level=2.00]	10.373	4.5313	1.492	19.254	5.240	1	0.022	31985.468	4.445	230151397.085	

[Financial Literacy=No]	-0.636	1.7597	-4.085	2.813	0.131	1	0.718	0.529	0.017	16.652
[Financial Knowledge=Yes]	0a							1		
Sales	3.402	1.2584	0.936	5.868	7.310	1	0.007	30.027	2.549	353.695
Credit sales	-0.440	0.6478	-1.709	0.830	0.461	1	0.497	0.644	0.181	2.293
Bank Loans	-0.090	0.4375	-0.948	0.767	0.043	1	0.836	0.914	0.388	2.154
High Inventories (Scale)	-0.772	0.7770	-2.295	0.751	0.987	1	0.320	0.462	0.101	2.119
	1b									

Dependent variable: Liquidity LevelModel: (Threshold), Financial Knowledge, Sales, Credit Sales, Bank Loans, High Inventories

to. Set to zero because this parameter is redundant.

b. Fixed on the displayed value.

The study highlights liquidity as an important element for the economic and financial stability of MSMEs in Peru, which is in line with what was stated by Ferrell et al. (2010) who state that finance entails the realization of actions aimed at searching, obtaining and optimal use of money, however, this in scientific jargon requires a whole set of technical knowledge to do so. in addition, for Haro and Rosario (2017) it goes further indicating that it is the sufficiency of the financial asset (we consider cash) to be transformed into additional money before maturity, this induces companies to convert other people's money into their own money, complying with all the obligations they have in a period. The study has confirmed that the liquidity of MSMEs is explained only by cash sales, in accordance with the assessments of various authors who state that sales not only affect liquidity, but also increase the risk of instability is immediate (Salinas 202; Muñoz 2024 AGICAO April 16); however, some of the ideas that are put forward do not agree with MSMEs in Peru, such as indicating that experience and preparation are a serious limitation to successfully assume sales to improve liquidity (Perez et al. 2021; Pizzán et al. 2021) although it is true that sales are the determining factor that sustains or explains liquidity, generating them and how to increase them, especially in competitive markets, are other factors that should belong to specific studies in this area, for in this study it has been established that cash sales constitute the determining factor that explains liquidity in MSMEs in Chimbote-Peru. On the other hand, credit sales Castillo et al. (2018) are right when they state that this type of sales decreases cash or slows down cash flows in organizations, this factor alone does not have that effect, because in two cases according to the study it does not have that effect, one is a solid economy in the country, and second, when cash sales are very high and sustained, being credit sales goes to second level in its effect and even in the study it is shown that although it is true that it has an inverse effect they are not relevant.

Another factor that was not taken into account in the study despite having been analyzed in theory, the nature of the accounting record and that in reality is dynamic in terms of cash, that is, especially in MSMEs, given that cash is not used and available at all times, this factor was not important and was not considered within the factors despite the fact that Montoya and Benjumea (2019) state that this factor generates an unpayable risk that can be prolonged over time, however in MSMEs it is not a determining factor. In the same way it happens with the purchase of credit merchandise paying high interest, or purchases of low-turnover merchandise these affect sales and finally these are the ones that affect liquidity, but in many cases they are not perceived because high sales cover good profits as shown in the study, only in the pandemic sales were very low even "0" but they have recovered and today they are in the big most are good and moderately good.

An important factor considered in the study is bank loans for high amounts in the short term because, according to León and Saavedra (2018), they affect liquidity because they allow liquidity to increase at the time the credit is obtained, however, if that investment does not have a reasonable return, it can also affect liquidity because the agreed installments must be paid without having generated more liquid money. but as can be seen, it is the product of poor management in the use and exploitation of borrowed money, since each credit must be repaid not only the principal but also the surplus (interest) in the overdue period (Ortiz & Visueta, 2019). The study has shown that for MSMEs in Chimbote-Peru, although it can affect liquidity inversely, it is not relevant or directly affects liquidity. Finally, in the study of the nine factors that affect liquidity, only four were considered and of these only sales directly affect liquidity, while technical knowledge in finance, bank loans, credit sales and high inventories are not factors that affect indirectly, they are also accompanied by other complementary variables.

5. Conclusions

Of all the factors that affect liquidity in MSMEs in Chimbote-Peru, only cash sales directly and significantly affect the liquidity of organizations considered entrepreneurship, increasing the risk of financial instability; factors such as: credit sales, bank loans, stock management, financial knowledge and bad debt reserves only affect indirectly and not in a relevant way the liquidity of MSMEs.

It is also important to know that most MSMEs manage their liquidity based entirely on their sales because their perception of banks is negative, considering them as having very little accessibility, therefore, they have microfinance as a source of cash and in many cases they use informal sources of financing paying high interest.

Finally, it has been observed that variables such as: bank loans with high rates, credit sales; are factors that affect liquidity

indirectly, that is, in the case of long-term loans and with high interest rates, the effect is reflected if and only if the money from bank loans has elapsed after the maturity period has not achieved a return on the principal plus the interest on that capital, generating that the payment reduces the liquidity in the rate and unreproduced capital as an effect of the investment made in the company.

Credit sales do directly affect the liquidity of any organization, however, for it to be visible or perceived, they must be: 1) High volumes of credit sales; 2) That credit sales are not collected at the agreed time; 3) That credit sales substantially reduce these of high turnover; 4) Finally, that the company does not have sufficient liquid capital to face the reduction. In these cases, the risk of financial instability increases.

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