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ARTIFICIAL INTELLIGENCE APPLIED IN THE PRE-CONTRACTUAL STAGE OF BANKING CREDIT CONTRACTS

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Abstract: *Lending quickly imposes precise and clear regulations. Banks in the EU member states must also be in this direction. In the pre-contractual stage, banks are obliged to provide their customers with information regarding bank lending conditions, alternatives, possibilities and simulations tailored to the situation of each individual customer. The role of these simulations is to support customers or potential customers of the bank in comparing bank lending offers in order to conclude bank lending contracts. The pre-contractual stage is the stage in which alternative simulations are carried out for bank customers under minimal risk conditions. This bank-customer relationship with the help of artificial intelligence can also be achieved remotely and enables customers to choose the credit offer in full knowledge of the matter. The intervention of artificial intelligence at this stage is found in: 1. knowing the client or potential client; 2. performing financial simulations for bidding; 3. analysis; 4. selection by reference to the banking criteria and conditions in terms of lending specific to each bank; 5. shortening the time for choosing the lending offer.*

Keywords: Pre-contractual stage, digitalization, artificial intelligence, credit offers, offer simulations

1. Introduction

The sphere of banking lending activities requires precise and clear regulations. Banks of the European Union member states must also move in this direction by harmonizing national regulations with European requirements. In the pre-contractual stage, from their position as creditors, banks are obliged to provide potential clients and their customers with information on bank lending conditions that will help bank clients and potential bank clients to know the type of loans, to build various offers in a personalized way, basically it is the pre-negotiation stage, in order to make a lending decision. At this stage, we are witnessing the possibility for bank customers and their potential customers to compare bank credit offers in order to decide on an offer with a view to concluding a bank credit contract. In the pre-contractual stage, the bank builds the financial offers, the bank proceeds to perform simulations that best suit its customers in relation to minimum risk conditions. Artificial intelligence provides real support in this pre-contractual stage. The bank-customer relationship can also take place remotely. As a result, this information must be transmitted by the bank within a reasonable time to allow customers to choose and to increase

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customer confidence. We appreciate the fact that the intervention of artificial intelligence through today's technology in knowing the bank's client or potential client and in performing simulations of financial offers is very important and useful for both, as it confers many advantages, both for banks and bank customers.

2. Stages of building the bank credit agreements

The technique of constructing bank credit contracts involves the successive passage through four levels which are specified as: the pre-contractual level, the contractual level, and the level of fulfillment of obligations as well as contractual rights.

The technique of constructing bank credit contracts involves the successive passage through four levels which materialize in: a) the pre-contractual level, b) the contractual level, c) the level of fulfilling contractual obligations, and d) the post-contracting level. The construction of bank credit contracts begins with the pre-contractual stage. It is a stage in which, following aspects must be taken into account, which are mandatory: confidentiality, correct information, good faith and other aspects of a contractual nature. The conditions for the validity of the offer in the light of the Civil Code are provided for in art. 1187. These conditions are embodied in the fact that: 1. the offer respects the legal form; 2. the offer must be firm and 3. the offer must be complete. The offer must be firm in the sense that it reflects the will of the parties. The offers are considered complete if the information contained in the offer is deemed sufficient for the analyzed elements. Practically, the contractual stage according to Art. 1182, entitled "Conclusion of the contract" specifies the following: The contract is based on a final offer, which in the sense of legal regulation is a firm offer and the negotiation of the contractual clauses between the contracting parties. The contract assumes the agreement of the parties on the main aspects with the mention that some secondary aspects can be agreed upon even after the conclusion of the contract. The secondary aspects may supplement the contract, taking into „account the circumstances, the nature of the contract, and the intentions of the parties.[2]

3. Conceptual framework

We present explanations of the meaning of certain terms for the clarification of their meaning.

Table 1. The meaning of some terms

No.	Selected terms	The meaning of the terms
1.	Commitment	1. Promise to achieve something. Synonyms: obligation promise 1.1. economy Payment commitment = obligation assumed in writing by a company to the bank, when contracting a loan, regarding the use and repayment of the respective loan. 1.2. Contract-commitment. [7]
2.	Good faith in negotiations	"(1) Good faith in the case of negotiations implies the freedom to initiate. (2) It is a condition to respect the principle of good faith. (3) Without the desire to negotiate, the interruption of these or the continuation of negotiations is not allowed. (4) The person who negotiates but does not want this is responsible for the damage caused to the other party." [2]
3.	Bank customer	A natural or legal person who has the status of a bank client obtained based on the current account contract.
4.	Potential	Possible customer for the bank.

	customer	
5.	Lending	Credit is an agreement by which certain goods, services, or a quantity of currency are provided in exchange for a promise of future payment. [6]
6.	Credit contract	means a contract whereby a creditor grants or promises to grant a consumer credit in the form of deferred payment, loan or other similar financial facilities and which is not a contract for the continuous provision of services or for the supply of goods of the same kind, where the consumer pays for them in instalments over the period of their supply; [4]
7.	Pre-contractual stage	The first stage of the construction of the credit contract, in which the correct, clear, complete and precise information of the credit applicant takes place.
8.	Pre-contractual information	These are the pieces of information that the bank client needs at the pre-contractual stage for analyzing offers and selecting the final offer. Basically, these are the pieces of information that will ensure a decision is made "with full knowledge of the facts," information that will also be included in the credit contract "regarding the conclusion of the credit contract.[4]
9.	Artificial intelligence	Artificial Intelligence (AI) is the ability of machines or computers to perform tasks and functions typically associated with human intelligence. [8]
10.	Offer	Act, written document by which such a proposal is made. [9] This is the proposal for the future contract. [1]
11.	Offer to contract	(1) An offer to contract is the proposal addressed to one or more persons, which contains all the essential clauses of the future contract and reflects the will of the offeror to be bound by the acceptance of the offer. (2) The offer produces effects only if it has reached the recipient before being revoked. (3) A proposal addressed to an indeterminate group of people (public offer) is a call to offer if this proposal does not contain any express manifestation of the intention to be bound by acceptance. (4) The offer must be firm, unequivocal, serious, and complete. [3]
12.	Offer to contract	(1) A proposal constitutes an offer to contract if it contains sufficient elements for the formation of the contract and expresses the intention of the offeror to undertake an obligation in the event of its acceptance by the offeree.(2) The offer may come from the person who initiates the conclusion of the contract, who determines its content, or, depending on the circumstances, who proposes the last essential element of the contract.(3) The provisions of articles 1.182-1.203 apply accordingly even when the circumstances under which the contract is concluded do not allow the identification of the offer or acceptance. [2]

Source: Author and sources indicated

4. Relevance of pre-contractual information

Pre-contractual information according to Directive (EU) 2023/2225 means "information that is provided before the consumer assumes obligations under a credit agreement or, where applicable, by sending a credit offer and that the consumer needs to be able to compare different credit offers and to take an informed decision on the conclusion of the credit agreement."

In this context, creditors can be banks, credit intermediaries, non-bank financial institutions that have the following obligations in the pre-contractual stage:

1. To provide credit applicants with pre-contractual information a reasonable period of time before assuming the responsibility of contracting;
2. Credit applicants to be well and correctly informed;
3. To provide clear and easy to understand pre-contractual information;
4. The pre-contractual information provided to enable credit applicants to compare different offers;
5. Comparing different offers to ensure that credit applicants can make a decision regarding the conclusion of a credit agreement;
6. The decision regarding to based by the credit applicant of the credit terms and conditions offered by the creditor;
7. The decision regarding to based on preferences expressed by the credit applicant;
8. The credit applicant shall be fully aware of the obligations he is about to assume under the credit agreement or a credit offer;
9. The credit applicant shall be fully aware of the obligations established in situations;
10. If the by the creditor credit applicant assumes obligations, the creditor shall be obliged to issue a warning regarding within period of from the transmission of the credit offer by the consumer.

Bank clients need "real protection in the area concerning the autonomy of will in consumer relationships, especially when entering into legal contracts" [5].

We present "Standard European consumer credit information", as follows in Table 2:

Table 2. "Standard European information on consumer credit"

No.	Standard information
1.	The name of the bank;
2.	Loan;
3.	Duration the agreement;
4.	Interest rate;
5.	Annual interest rate;
6.	For payment deferrals, it is necessary to present the cash equivalent of the price of the respective goods or services;
7.	Penalty costs associated with late payments
8.	The volume and amount of payments. Possible differences that may arise for different rates applied;
9.	Possible warnings;
10.	The absence or even the occurrence of a right in possible withdrawal situations in which the withdrawal period will be specified;

11.	Specific concrete specifications for situations of early repayment detailed and explicit in percentages;
12.	Detailed elements regarding the geographical address.

Source: Author

6. Conclusions

Artificial intelligence is relevant in the pre-contractual stage in creating simulations of personalized financial offers for loan applicants. Artificial intelligence manages and analyzes information and data based on algorithms in a very short time. The speed of work in creating simulations with the help of artificial intelligence presents advantages for both banks and bank loan applicants. It helps in selecting eligible customers for bank loans. Quickly present simulations for several offers in a very short time, allowing loan applicants to choose the offer based on which they will assume their obligations in the contractual stage and taking into account their options. Financial offer simulations are efficient and effective. The weight of the pre-contractual stage lies in the fact that the transition to the next contracting stage is only possible if the offer is accepted. Practically, in this stage, the information, verification and analysis of the placement of loan applicants (bank clients, potential bank clients) in the bank's conditions and scales are carried out. The pre-contractual stage is decisive and mandatory, with the mention that two types of results can be reached: one in which the applicant does not meet the criteria for contracting the loan and the second in which the applicant meets the criteria for contracting the loan. In the second situation, it is possible to proceed to the contracting stage, respectively to the conclusion of the contract, but this is not mandatory, unless the credit applicant demonstrates his firm will to conclude the bank credit contract. We appreciate that the final offer developed with the help of artificial intelligence and accepted by the client could be called: “intelligent contracting offer”.

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