
Economic intelligence at the service of banking risk management

-Case study of exchange risk at the Société Générale Algérie Tlemcen branch-

الذكاء الاقتصادي في خدمة تسيير المخاطر البنكية

-دراسة حالة مخاطر سعر الصرف في بنك سوسيتي جنرال وكالة تلمسان-

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Abstract:

Risk is in a way the daily bread of the banking business, which must evaluate it, select viable and profitable operations, take the safest guarantees to cover itself against the various risks: risk of non-repayment, operational risk, exchange rate risk, etc. This is where the art of the banker lies: exposing oneself to risks that one can control. Managing a risk requires useful information in order to solve a problem. Useful information is the information needed by the different levels of decision making in the banking organisation to develop and implement in a coherent way the strategy and tactics necessary to control and minimise the different risks that come to it. These actions, within financial institutions, mainly

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banks, are organised around an uninterrupted cycle, generating a shared vision of the latter's objectives. The results obtained show that economic intelligence plays a primordial role in the management of banking risks as illustrated in our case study by studying the exchange rate risk.

Keywords: Banks, Economic intelligence, Information, Risks.

الملخص:

الخطر هو بمثابة الزاد اليومي للأعمال المصرفية، الذي يجب أن تقوم بتقييمه، وكذا اختيار العمليات المربحة، واتخاذ الضمانات الأكثر أماناً لتغطية نفسها ضد المخاطر المختلفة مثل مخاطر عدم السداد، المخاطر التشغيلية، مخاطر سعر الصرف، وما إلى ذلك.

تتطلب إدارة المخاطر المعلومات المناسبة لحل مشكلة ما، والمعلومات المفيدة هي المعلومات التي تحتاجها المستويات المختلفة لصنع القرار في المؤسسة المصرفية لتطوير وتنفيذ الاستراتيجيات والتكتيكات اللازمة للسيطرة على المخاطر المختلفة التي تتعرض لها وتقليلها.

تنظم هذه الإجراءات، داخل المؤسسات المالية، وخاصة البنوك، عن طريق تنظيم دورة كاملة، تولد رؤية مشتركة لأهداف هذه الأخيرة. تظهر النتائج التي تم الحصول عليها في إطار هذه الدراسة أن الذكاء الاقتصادي يلعب دوراً أساسياً في إدارة المخاطر المصرفية كما هو موضح في دراسة الحالة التي قمنا بها من خلال دراسة مخاطر سعر الصرف.

الكلمات المفتاحية: البنوك، الذكاء الاقتصادي، المعلومات، المخاطر.

Introduction :

As economic actors, banks are exposed to a variety of risks from the moment they are created and throughout their existence. These risks are related to the activity and location of these financial institutions. The banking environment has become very unstable and vulnerable to the various fluctuations in the monetary sphere. Faced with these various disturbances, banks are increasingly threatened by a variety of risks that are detrimental to their activity and their position on the financial market.

Therefore, risk appears as one of the current challenges for managers to define, measure and manage it in order to improve performance. Furthermore, the growing importance of market operations has resulted in the appearance of new risks and the amplification of existing ones. This has gradually led banks to methodically organise their risk management in order to ensure greater control.

In this sense, our main problem in this paper is:

How can economic intelligence contribute to ensuring good management of exchange rate risk?

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The aim of this research is to provide a comprehensive overview of the analysis, assessment and management of banking risks, given that banks operate in a particularly outward-looking economic environment. Competitors are global and markets are constantly changing. Especially with the rise of information and communication technologies, providing the right information to the right person at the right time is becoming a strategic issue.

This paper is divided into two sections, the first section includes the theoretical side and the second section includes the practical study of the exchange rate risk within the Société Générale Tlemcen bank, relating to an import operation and we conclude by a brief conclusion as to the results obtained in this study.

In order to lay the foundations of research, we addressed through this paper the presentation of some review of literature highlighting the most important results reached.

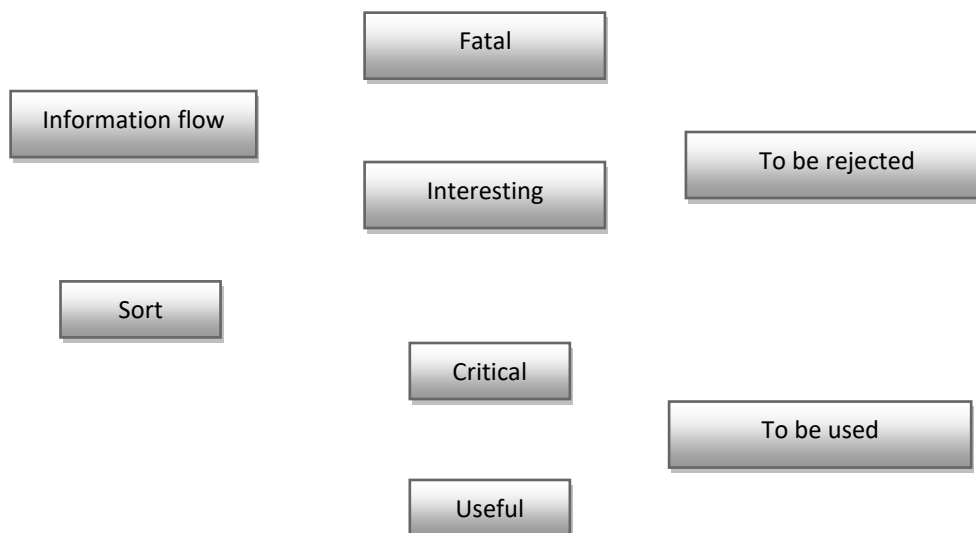
2. Theoretical framework

2.1. The concept of information:

Literature allows us to distinguish between three main perspectives of interpretation of the concept of information, against which we can relate all the uses made of it in the economics literature: statistical, symbolic and semantic.

1. In the statistical or mathematical approach, information is quantifiable data whose interest lies in the frequency of occurrence. A clear separation is made here between the content and the container of the information. In a way, information is dissociated from the knowledge it is likely to provide. The information is stripped of all semantic value.
2. The symbolic approach is based on the idea that decision-making in organisations is a field of application of authority. The ability to use information appropriately is seen as a demonstration of the competence and social probity of the person who proceeds and uses it. In this context, the possession and control of information and its sources are the basis for the competence and trust of an executive. Holding information is a good thing in itself. An executive or organisation that has more information is considered to be better, superior, compared to others.
3. In the semantic approach, the interest is in the descriptive and learning potential of information. Information is here synonymous with a signal involving a sender, receiver and medium; and whose value is context specific and attributed by the receiver. This new understanding, specific to the context of each organisation, provides a new basis for interpreting events, thus also making previously unperceived (not understood) facts perceptible.

Information is a process: that of exchange between a system and its environment. The environment is the medium in which the system evolves. This environment is itself a system¹.

Form 01**Classification by information category**

Source: Dionne, George. « Risk management: history, definition and critique ». (PHD. Montréal, Éd.) HEC Montréal- 2013. Page: 112.

To this classification we will add a final category, which is the information used. For information to be used, it must be usable by its user. This poses problems in terms of the forms of information, the skills needed to analyse it and to identify its use.

a. Collecting or selecting information:

Today the sources of information have become innumerable: newspapers, magazines, reports, staff knowledge and skills, internal know-how, past experience...The Internet has of course increased the possibilities of accessing information. The so-called memory of an organisation, i.e. all its knowledge and expertise, is a formidable source. It is estimated that half of the information collected externally is already within the company.

¹ MAZOUNI, Mohammed Habib – « For a better approach to risk management » -PHD to the National Polytechnic Institute of Lorraine -2008-page : 159.160.

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Table 01 **Typology of information**

Information	White	Grey	Black
Type	Scientific, technological, commercial, legal, financial, strategic, personal		
Level	Tactical, operational, strategic		
Operating area	Documentary, situation, warning		
Interest	Fatal, useful, relevant	Relevant, critical	critical
Access	Public	Restricted	Strictly limited
Classification	Unprotected	Restricted dissemination	Confidential, secret
Availability	80%	15%	05%
Forms	Formal (text) or informal (conversation, rumour)		
Sources	Open	Authorised-closed	clandestine
Legal qualification	No collection violations: ➤ Lawful collection ➤ Intellectual property ➤ Possible infringement of employment	Area of infringement : ➤ Competition litigation ➤ Executive poaching ➤ Breach of professional secrecy	Infringement of civil and commercial law : ➤ Offence against the administration ➤ Offences against personality ➤ Infringement of the company's interests ➤ Infringement of laws and regulations
Cost	Low	Low	High
Profitability	High	Very high	Low

Source: Guilhom, B., & Levet, J. « From economic intelligence to the growth economy ». Paris: Edition Economica. 2003. **Page:** 48.

Information selection is particularly problematic in strategic management, when it comes to monitoring turbulent environments, anticipating threats and opportunities by collecting anticipatory information and ambiguous facts. Even though empirical studies show that managers acquire information with the possibility that it will be important in the future, the information processing capacities of organisations are often unsatisfactory, especially when the information is ambiguous¹.

b. Information and knowledge:

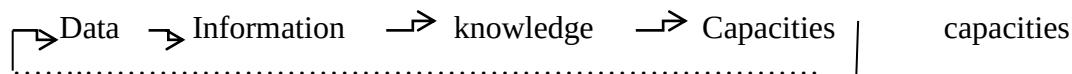
Information refers to a structured set of data conveying a meaning (or signal) whereas knowledge is a product generated by the processing (interpretation) of information. Thus, unlike information, which exists independently of individuals, knowledge is "attached" to individuals since it is based on their subjective faculties, which makes it a good more easily controlled by its holder. To illustrate this idea, we can think of the obvious difference between the information contained in a cooking recipe and the knowledge mobilised by the cook to make it.

If we admit that information contributes to the improvement of knowledge, it follows that we cannot conceptually consider these two notions as equivalent, since knowledge derives from a certain transformation of information. Unlike information which can be acquired, knowledge has to be developed. For Nonaka (1994), as is the case for Argyris (1993), information is a necessary input for the initiation and formalisation of learning. We find this idea of a superimposition of knowledge on information in the definition given by Nonaka (1994): "information is a message flow that feeds, changes or structures knowledge and a good that can produce knowledge. Knowledge is a verified belief about human action that is based on a flow of information." It follows from the definition formulated by Nonaka (1994), that all knowledge is based on a more or less complex information base. We complete the distinction between the two notions "information and knowledge" on the basis of the position defended by Nonaka (1994), by specifying that information relates to a fact (or a set of facts) of a greater or lesser complexity whereas knowledge relates to a process of activity. The information, initially external to the subject, is rejected or understood and integrated into his mental universe. It becomes knowledge. From the knowledge and experiences, the subject constructs (or deconstructs) meaning and acquires a certain knowledge².

¹ Abdelkrim, SADEG. « Algerian banking system: the regulation of banks and financial institutions ». Algeria: The printing presses A. 2005. page: 110.

² Massé, G., & Thibaut, F. « Business intelligence-a guide to the intelligence economy . editions de Boeck université-bruxelles.2001. Page: 95.

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Form 02**Information and knowledge**

Source: Massé, G., & Thibaut, F. « Business intelligence-a guide to the intelligence economy ».Page: 95.

2.2. Definition of economic intelligence :

The definition of the concept of "economic intelligence" has been carefully established by official reports, and numerous writings have been devoted to this subject. We could then have considered that this concept was sufficiently clear not to have to return to it, or at the most, to devote only brief reminders to it. But we felt that there was a certain amount of confusion surrounding this concept.

The term economic intelligence is an explicit takeover of American terms. It constitutes an anglicism around the term "business intelligence". Let us recall that "intelligence" in French never has the meaning of "intelligence" but refers to the idea of faculty of understanding; hence a certain confusion linked to this expression "economic intelligence" in French. It is useful to look at the French translation of the Anglo-Saxon word "intelligence". This term takes the meaning of the classical Latin "intelgentia": faculty or capacity to know, to understand, but the term also means a secret relationship between people, hence the old use, taken up in the English language, of information provided by a private intelligence service.

"Intelligence" is translated in the same way in French: "intelligence" in its most familiar sense, i.e. the "faculty of understanding". "Intelligence" was translated as "renseignement" in the French version of Porter's 1980 book¹.

At the end of the 1980s, the concept of EI was firmly established in countries such as Japan, Germany, Sweden and the United States, which had made it the strategic driver of their development and commercial success. The practice of EI thus appears to be an essential lever for the global performance of nations. The definition of EI to which many authors refer: "EI can be defined as all coordinated actions of research, processing and distribution, with a view to its exploitation, of information useful to economic actors". These various actions are carried out legally with all the protection guarantees necessary for the preservation of the company's assets, under the best conditions of quality, time and cost. Useful information is that which is needed by the different levels of decision-making in the company or the community to develop and implement in a coherent manner

¹ E.Said, Antoine." Role of economic intelligence in the strategy of the company". doctoral thesis in economic sciences. university Paris IX Dauphine, Paris. 2004. Page: 164.

the strategy and tactics necessary to achieve the objectives defined by the company in order to improve its position in a competitive environment".

Moreover, the Martre report specifies that the notion of EI goes beyond the partial actions designated by the terms documentation, monitoring (scientific, technological, competitive, financial, legal and regulatory, etc.), protection of competitive assets, influence" Martre report 1994, p.17.¹

2.3 The main foundations of Economic Intelligence:

From the definition of the Martre report, we retain two main orientations that underpin the concept of EI. The first concerns the object of analysis, the second the nature and behaviour of the actors. On the other hand, we consider that what is missing from this definition concerns rather the conception of its dynamics.

Concerning the object of analysis, the definition of the Martre report, which is the result of an in-depth collective work and of which each term has been carefully chosen, particularly underlines certain aspects of the EI activity:

1. The usefulness of information;
2. The competitiveness objective of EI for the company;
3. The interplay of EI with strategic decision making and strategic tactics;
4. The coordination of the different phases of the process (research, processing, dissemination and exploitation);
5. The legal framework within which the process must take place;
6. The security and protection of the company;
7. The efficiency of the process (quality, deadlines and costs)².

According to the Martre report, EI is based on a strategic intention and involves all the actors in the economy (companies, professional groups, local, national and transnational decision-making centres and States). It uses different levels of information from the most accessible to the grey or semi-open information. It facilitates the identification of links between factors (individuals, events, technologies, strategies, know-how) which allow, for example, the reconstruction of a competitor's intentions. It therefore saves time, improves the quality of strategic decision-making processes and influence practices³.

What Economic Intelligence is not :

- Espionage: EI cannot be espionage because companies cannot risk being taken to court or antagonising their shareholders;

¹ Planning Commission, Marten Report. "Business intelligence and corporate strategy", Paris, The French Documentation. 1994. P 65.

² Barthelemy, B., & Courreges, P. *Risk management. Organisational editions 2nd edition*. 2000. page120.

³ ELOUMARI, Ibrahim. « Risk management in the textile industry » . institute of applied engineering-financial engineering. 2011. Page 96.

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- A crystal ball: EI cannot tell what exactly will happen tomorrow. It gives companies good images of reality in the short and medium term.
 - A database research activity: databases offer nothing but data. The latter are very useful and valuable. However, EI cannot be reduced to the accumulation of data. It goes much further by analysing it and proposing scenarios. The activity requires experience, reflection and intuition.
 - Internet research or rumour hunting: the internet is primarily a means of communication, not a provider of intelligence. The data is raw and can only be interpreted after being analysed. You can find clues, leads on competitors, developments in the environment, but you have to be able to discern what is true and what is not.
 - Simply paper: the information collected is only useful if it is transmitted quickly, hence the important role of multimedia.
 - One person's work: One person cannot do all the work of EI. At best, he/she coordinates the whole activity. The notion of a network in which information circulates is also introduced. The EI manager must continually ensure that all members of the company are involved and have circulated the information.
 - A twentieth century invention: EI has always existed. Before its appearance in companies, the concept existed mainly in the military field.
 - A job done by software: as with databases, EI cannot be reduced to the simple use of software. They are essential tools for the activity but they cannot replace the analysis of the expert.
 - A newspaper story: information gathered from the media (press, radio, television) is not an effective way to do EI on its own¹.

2.4 Economic intelligence and the information system :

Information constitutes the heart of any economic intelligence system. However, it is no longer considered as a rare resource, and its strategic importance is therefore reduced. On the other hand, what becomes rare and can therefore constitute a source of competitive advantage for the company that masters this resource, are the skills necessary to use, interpret and even assimilate this information. In other words, a company's competitive advantage is no longer based solely on the fact that it has this or that specific piece of information, but on its ability to use the information at its disposal. Economic intelligence cannot be reduced to the management of information flows, but must be interested in the storage and use of this information, in other words its transformation into knowledge, skills, and therefore into a competitive advantage. In this perspective, economic intelligence can be called what allows the firm to correctly identify the problem 'with limited information', to make the 'right' decision, to implement it and to be able to evaluate the results².

¹ Antoine, E.Said. « Role of economic intelligence in the company's strategy ». Op.cit.Page: 167.

² Guilhom, B., & Levet, J." From economic intelligence to the growth economy" Op.cit.Page: 55.

There is a cycle of information use: preparation, analysis, use, which must be understood in order to master it:

Legitimise → Search → Select → Interpret
Secure → Disseminate → Destroy¹.

2.5 Risk management terminology:

Like any field, risk management has specific terms that allow it to put words to activities and principles of assessment. Thus, risk management starts with a proper interpretation of the combination of definitions:

- Management: which consists of administering (a business, interests) on behalf of others;
- Risks: which concern a possible danger, more or less foreseeable, inherent in a situation or an activity.
- Risk management therefore consists of administering an activity or interests in the face of a more or less foreseeable possible danger².

The purpose of risk management is to create a framework for companies to deal effectively with uncertainty. Risks are present in almost all economic and financial activities of companies. The process of identifying, assessing and managing risks is part of the strategic development of the company and should be designed and planned at the highest level, i.e. the board of directors³.

Risk-taking is a decision to carry out a transaction with a client or in a financial market. It is made on a basis and in an uncertain economic and financial environment⁴.

According to (Dionne, 2001) risk management: "is a set of activities (financial and operational) that maximises the value of a company or portfolio by reducing the costs associated with the volatility of its cash flows. The main activities are risk diversification and hedging through the use of various instruments including derivatives and structured products, market insurance, self-insurance and self-protection.

The main costs to be minimised for the company are the expected costs of financial failure, expected payments to stakeholders, expected tax payments and investment financing. The risk behaviour of managers (managerial risk appetite) and corporate governance also affect risk management choices.

¹ Massé, G., & Thibaut, F. « Economic intelligence » -op.cit-page :60.

² Barbezat, M.. The art of risk management. Retrieved from business intelligence unit on the internet: <http://b3b.info/2014/02/08/gestion-des-risques/>

³ Dionne, G. « Risk management: history, definition and critique ». PHD Montréal. HEC Montréal. 2013. Page: 73.

⁴ Desmicht, F. "Practice of the banking activity Accounting, commercial, IT and financial management-Risk management". Campus Dunod. 2010. page: 125.

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Thus, risk management aims to preserve the organisation's ability to pursue its mission and prosper, and to maintain its vitality and social responsibility to the community as a whole.

2.6 Definition of banking risks :

The bank is often presented as a portfolio of risks. The latter is an inevitable and natural dimension given the products offered and the "material" handled: money. Their main consequence is to cause a significant loss for the institution, either through a slowdown or even a decrease in NBI, or through an increase in expenses: cost of repairs, maintenance, compensation, financial penalties or provisions. They lead to a dangerous deterioration in the institution's capital base, leading to its bankruptcy and potentially jeopardising the stability of the banking system as a whole.

For the sake of simplicity, a distinction is made between non-financial risks and traditional financial risks.

2.6.1 Non-financial risks:

This term generally refers to risks that do not originate in the institution's positions (granting of financing, collection of financial resources, market activity) but in its daily operations and management processes. After having been treated in a secondary manner for a very long time, the current trend is towards a precise identification of this category of risks and the proposal of a common definition by the Basel Committee responsible for prudential regulation at the European level. They now fall into two families: operational risks and strategic risks.

1) Operational risk: for the Basel Committee, this is "the risk of direct or indirect loss from inadequacy or failure attributable to personal procedures, internal systems or external events". Legal risk is included in the scope of this definition, which since January 2007 sets capital requirements for operational risk.

Operational losses or losses generated by the realisation of an operational risk arise from many different causes. As a first step, it is therefore essential to identify those to which the bank is most likely to be exposed and the data that needs to be collected. Once the different operational risks have been identified and the associated data collected, it is possible to construct a true history of operational risk data, in most cases, by combining internal and external data¹.

2) Strategic risks: unlike the previous ones, they remain difficult to quantify and are excluded from the discussions of the Basel Committee. In other words, they cannot be covered by a specific capital allocation.

They are mainly linked to the decisions taken by bank managers in terms of business policy and development. The history of banking is regularly marked by

¹ Lamarque, E. (2008). Gestion bancaire « avec un cas d'entreprise ». Paris: -2eme édition-Dareios & Pearson Education. Page: 120.

crises of varying severity resulting from excessive positions taken in certain markets or activities.

2.6.2 Financial risks : these fall under three concerns:

- Counterparty risk;
- Liquidity risk;
- Price risk.

1) Counterparty or signature risk: this is the risk inherent in the traditional intermediation activity and corresponds to the default of the counterparty on which a claim or commitment is held. As a result, the bank suffers a loss of capital (unpaid claim) and income (unpaid interest) that is considerably greater than the profit made on the same non-defaulting counterparty. This risk, also referred to as credit risk or signature risk, includes country risk.

2) Liquidity risk: this is also a risk inherent to traditional intermediation activity since the term of assets is always longer than that of liabilities, especially when customer deposits are involved. A bank that is unable to meet a massive and unforeseen demand for funds from its customers or other credit institutions is said to be illiquid.

The financial analyst, who is external and takes the view of a given bank and not of the sector as a whole, is not in a position to measure liquidity risk exposure accurately because financial balance sheets do not break down assets and liabilities by maturity¹.

Liquidity risk is therefore what would lead a bank to be unable to repay short-term debts because the assets it holds are longer-term. However, the financing of long-term assets with shorter-term resources is the very basis of the banking business through the transformation risk².

Price risk:

These include interest rates, exchange rates, equity values and commodity values. They are generally referred to as market risk.

3. Theoretical and practical foundations of exchange rate risk management

3.1 Definition of the exchange rate:

The exchange rate is the value of a national currency in relation to that of another country. It represents the amount of a foreign currency that can be acquired with one unit of another currency.

¹ Coussergues, S. (2005). *Gestion de la banque « du diagnostic à la stratégie »*. (4. édition-DUNOD, Éd.) Paris. Page: 84.

² Jayanthi RANJAN, «business intelligence: concepts, components, techniques and benefits», *Journal of Theoretical and Applied Information Technology*. 2009. Page: 68.

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Synonyms for exchange rate:

Exchange parity or currency parity, conversion rate.

The exchange rate is expressed as a multiplier. Example: 1 euro = 1.25 US dollars, noted EUR/USD=1.25

The exchange rate can be: fixed or constant.

The exchange rate is determined by the government or central bank that issues the currency in relation to a reference currency, usually the dollar. It can only be changed by a devaluation or revaluation decision, to combat speculation. If the official rate is not realistic, a parallel market may appear.

It is then determined by the supply and demand of these currencies on the foreign exchange market (or Forex), which is the global interbank currency market. Since 1973, this system has been adopted for most currencies. Exchange rates are constantly changing, depending on the expected interest rates and inflation for each country, as well as purchasing power parity. In banks, foreign exchange transactions are carried out by foreign exchange dealers. A distinction is made between : Spot rates for purchases within 24 or 48 hours.

Forward rates for transactions with a future maturity, often monthly. The purpose of the forward exchange market is to manage the exchange rate risk by fixing today the price at which the currency will be paid in the future.

In a commercial transaction, a foreign exchange risk exists as soon as two conditions are met:

- The commercial contract provides for a forward payment;
- The payment must be made in a foreign currency (a currency other than the national currency).
- The risk incurred arises from a possible unfavourable evolution of the rate of the settlement currency:
 - Increase in the currency rate for an importer who will have to pay more for the currency needed for payment;
 - Decrease in the currency rate for an exporter who, at the time of payment, will negotiate the currency received at a less advantageous rate than that of the invoice.

It should be noted that the risk may result in a gain for the company if the settlement currency rate develops favourably:

- Decrease in the currency rate for an importer;
- Increase in the currency rate for an exporter.

Foreign exchange risk also exists for a number of other transactions such as:

- Investment in foreign currency;
- Repayment of foreign currency loans;

- Capital tied up in a foreign subsidiary;
- Dividends receivable in foreign currency;
- Etc.

3.2 Practical study of the exchange rate risk within the Société Générale Tlemcen bank (relating to an import operation):

3.2.1 The economic analysis:

It is a family business renamed Z which was created on 10/12/2008 by the three partners in this case the father Mr. Abdelhamid (associate manager) and his two sons Brahim and Amine (associate co-managers), with a share capital of 100 KDZD, the latter was modified upwards in 2013 for an amount of 2,050 KDZD, the social shares are distributed as follows: Mr. Abdelhamid (30%), Mr. Brahim (35%) and Mr. Amine (35%). This company is active in the import and transformation of paper and cardboard in different dimensions and according to orders: bag making (hamburger-sandwich-croissant), pastry paper tablecloth, large format paper for printers, photo and advertising paper, file folders. For information, Company Z benefited from a leasing agreement with APG to purchase bag making and printing machines.

Through this financing, the company was able to develop its activity by increasing its production rate, which enabled it to acquire a large share of the market despite the tough competition in the region.

It should also be noted that the managers of this business have a good commercial relationship with their foreign suppliers from whom they obtain their raw materials, and the most common methods of payment used with these suppliers are documentary credit and documentary remittance.¹

3.2.2 Financial analysis :

In order to better understand the management of foreign exchange risks, we will demonstrate below an import transaction concerning customer Z, which is a documentary credit on sight or against documents.

This international payment method has two main stages:

- Opening of a documentary credit:

After concluding the negotiations between the exporter (Supplier) and the importer (Customer Z), the latter submits a proforma invoice with an amount of 128 151,22 USD to his bank (APG) in order to proceed with a documentary credit opening.

The bank asks its client to complete the necessary forms, namely
-Application for opening a documentary credit.

¹ "The influence of the exchange rate variation on a foreign trade operation", (2022). An analysis carried out by a professional customer advisor - "S.G.A 402 Tlemcen agency".

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- Request for direct debit.
- Direct debit fee or commitment.

The banker checks the proforma invoice and the above-mentioned documents containing the instructions agreed between the two parties.

Before proceeding with the direct debit of this operation, the banker must ensure that the provision exists in the account of the customer Z (the equivalent of the amount of the proforma invoice with the current exchange rate) and then he proceeds to block this amount which represents the real guarantee of this operation.

- **Constitution of the provision:** the amount of the provision is calculated according to this formula: $\text{USD } 128\,151,22 \times 77,5647 = \text{DZD } 9\,949\,622,28$.

This step is carried out by sending a Swift (inter-bank message) to the exporter's bank advising it that the bank of client Z has agreed to enter into this documentary credit transaction.

- **Execution of the documentary credit:** after receiving the Swift, the exporter's bank notifies the documentary credit and notifies its client (exporter), who prepares and dispatches the goods by collecting the transport documents, once the following documents are collected: the final invoice, transport documents, annexed documents required by the importer, he hands them over to his bank according to the opening conditions for the realization of the documentary credit.

The supplier's bank forwards these documents to the bank of customer Z, which, once received, notifies its customer to collect the documents. Customer Z's bank issues the documents and returns the provision already blocked at the time of opening, then settles the final invoice at the current rate.

- **Restitution of the provision:** the banker proceeds to the restitution of the provision already blocked at the time of the opening of the documentary credit, which amounts to 9 949 622,28 DZD.

- **Settlement of the documentary credit:** once the provision has been returned, the bank will carry out the fund transfer operation in order to settle the file. The settlement is made on the basis of the current exchange rate and is calculated as follows $128\,151,22 \text{ USD} \times 79,1018 = 10\,043\,392,60 \text{ DZD}$.

- **Following the analysis of this operation, we have noted that:** the amount blocked at the time of the opening of the documentary credit is different from the amount transferred at the time of settlement.

-**The exchange rate has increased:** (Opening rate=77,5647/Settlement rate=79,1018)

Deduction: variation of the exchange rate which is +1,5371.

- This unfavourable change in the exchange rate, which is +1,5371 for this importer, will force him to pay more for the foreign currency needed for settlement.

Conclusion of the case study: given that the documentary credit operation is considered as a commitment made by the bank of company "Z" for the payment (transfer of funds abroad) of the supplier and this against the conformity of the documents transmitted by the latter. This means that the bank must imperatively settle this operation regardless of the exchange rate applied on the day of the settlement, so in order to avoid any loss generated by this operation, the bank must know how to manage this operation properly and in advance before any commitment. To do this, it must gather and make perfect use of the relevant information (knowledge of the customer, information on the supplier and the country of origin of the goods, etc.) necessary for making a decision.

Deduction: a perfect mastery of the information relating to this operation with a guarantee taken beforehand (an increase of 5 to 10% on the provision blocked at the time of the opening of the documentary credit) can avoid all risks encountered in this operation.

Conclusion:

Banking is different from other activities in that there is a permanent relationship between the bank and its customers. The branch in turn works with individual customers, and in the face of strong competition and the profound changes that affect it, it must satisfy the various ever-increasing demands.

Finally, what we have seen from our research is that risks are inherent to the banking activity and the objective of the management of its resources and jobs is not to eliminate them but to manage them through a study and selection of the clientele which is based on a logic and a plan of good management.

Therefore, through our research, we can conclude that in order to achieve performance objectives, decision-makers need to be able to understand the variables that influence their activities, measure their magnitudes, predict their evolution and control the results. This creates a permanent challenge for economic agents - operating in a dynamic and imperfectly predictable environment - who have to make decisions involving significant commitments (in human, financial and material resources) over varying periods of time. Business leaders must therefore seek to exploit opportunities with manageable risks. The concept of "risk" in financial analysis can be defined as: the volatility of the value of a share or equity, of an asset, of a portfolio of assets, of a unit of the company or of the company as a whole.

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