

Ecological and Financial Economic Aspects of Precious Metals

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Abstract: This article presents specific aspects of ecological, financial-economic and management models for precious metals. Thus, we present the main types of financial-economic analysis: financial-economic statistical analysis, financial-economic dynamic analysis, financial-economic static analysis, financial-economic mathematical analysis, financial-economic psychological analysis. Also we present the main object of the Financial-Economic-Ecological (FEE) analysis: the financial-economic technological activity analysis of a company, the financial-economic analysis of the production costs, the financial-economic analysis of equipment, the financial-economic analysis of labor productivity, the financial-economic analysis of the goods flow. Also, this paper presents an algorithmic analysis of the marketing mix for precious metals. It also analyzes the main correlations and their optimizing possibilities through an efficient management. Thus, both the effect and the importance of the marketing mix, for components (the four "P-s") are analyzed for precious metals, but their correlations as well, with the goal to optimize the specific management. There are briefly presented the main correlations between the four marketing mix components. We also present and analyze in our article new concepts such as: Level of Precious Metals Product Completion (LPMPC), Precious Metals Quality Control Activity (PMQCA), Precious Metals Cost Control Activity (PMCCA), Precious Metals Profit Planning (PMPP).

Key words: Ecological • Financial-Economic Analysis • Management Models • Precious Metal Product

INTRODUCTION

Ecology must have the basic concept of sustainable development, [1, 2]. The concept of Sustainable Development would include a critical analysis of a quantitative measure of the Gross Domestic Product (GDP) and a different vision of the qualitative transformation. The goals of sustainable development include the harmonization of the economic, social and environmental targets. Sustainable Development involves achieving this need without compromising the ability of future generations to meet their own needs [3-14].

Bank regulators have paid close attention to risk concentration by banks, the objective being to prevent banks from relying excessively on a large borrower or group of borrowers. Modern prudential regulations usually stipulate that a bank should not make

investments, grant large loans, or extend other credit facilities to any individual entity or related group of entities in excess of an amount that represents a prescribed percentage of the bank's capital and reserves.

According [15] finance notion has three meanings, namely:

- The practice of manipulating and managing money.
- The capital involved in a project, especially the capital that has to be raised to start a new business.
- A loan of money for a particular purpose, especially by a finance house.

A Finance Company (FC) is a company that provides finance, normally in the form of loans. As it tends to finance ventures with a high risk factor, the cost of borrowing is likely to be higher than that made by a clearing bank.

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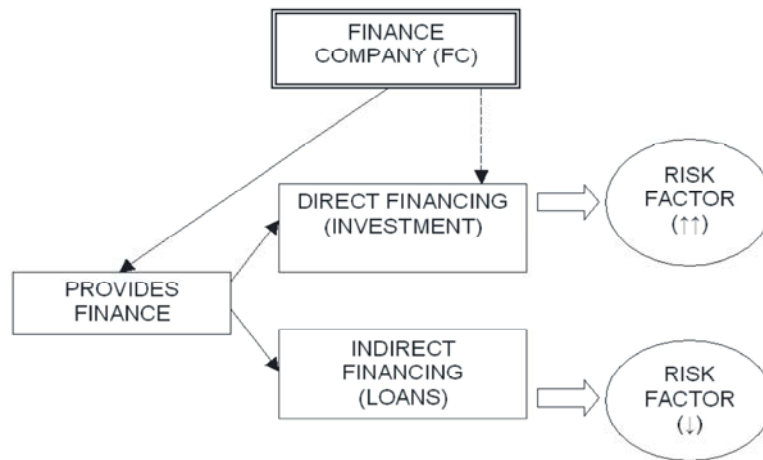


Fig 1: Scheme of a Finance Company (FC) and correlations with risks factors

In Figure 1 we present the scheme of a Finance Company (FC) and correlations with risk factors.

Not coincidentally it is said that the bank gives you an umbrella when is a good weather (when you can have arisen only from the sun) that asks you back when is bad weather ("Financial Storm").

The economic analysis is a research method, based on decomposing and dismantling an object or a phenomenon in its components or its basic elements [13].

The etymology of the term "economic analysis" is Greek word "analisi", [14]. The term "analysis" is from Medieval Latin "analysis", from Ancient Greek: "ἀνάλυσις" (analusi), ἀναλύω (analuô, "I unravel, investigate"), ἀνα (ana, "on, up") + λύω (luô, "I loosen").

The economic analysis examines the activities or phenomena from the economic point of view. The essential issue when performing economic analysis is that it observes the structural relationships, including functional relationships and the cause and effect relationships, [2, 5, 7].

The Economic Analysis May Be:

- Financial analysis
- Psychological analysis
- Diagnostic analysis
- Statistical analysis
- Mathematical analysis
- Dynamic analysis

The Object of the Financial Analysis May Be:

- The financial-economic activity analysis of a company

- The financial-economic analysis of equipment
- The financial-economic analysis of the production costs
- The financial-economic analysis of labor productivity
- The financial-economic analysis of the goods flow
- The technological activity analysis of a company

The financial-economic synthesis is an important component of the financial-economic analysis, which recomposes the parts or elements of an object or phenomenon as a whole.

Whilst the analysis process involves the decomposition of a phenomenon, the synthesis process examines the elements of an object, studies together as a whole.

MATERIALS AND METHODS

Adoption of innovation [6, 8, 9] has been suggested that those consumers who eventually accept an innovation can fall into five groups shown in figure 2-Innovation Groups Adoption (IGA).

The consumers who eventually accept an innovation can fall into the five groups (figure 1). The main characteristics of the five groups of consumers are:

- Innovators-the first to buy and use new products.
- The innovators are clearly critical to the process of adoption, including financial-economic adoption.
- They are likely to communicate with and persuade others to try the product, including financial-economic product.
- They put the innovation on show to create the image of being venturesome.

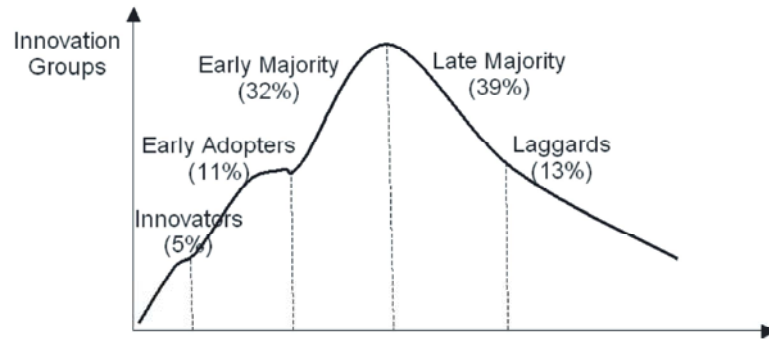


Fig 2: Innovation Groups Adoption (IGA)

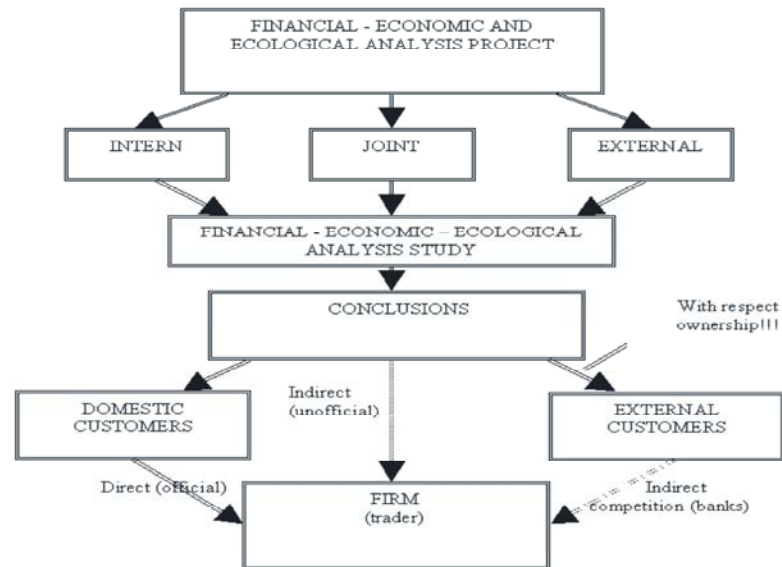


Fig 3: Model of Financial-Economic-Ecological (FEE) analysis

- Without their support an innovation is unlikely to be successful.
- This group is defined as the first 5% to adopt the new product.
- Early adopters-tend to the opinion leaders and to adopt new ideas early but carefully.
- This group is defined as the next 11% of the adopting consumers.
- Early majority-people regards as being deliberate in their decisions, who are rarely leaders.
- These form the next 32% of the adopting consumers.
- Late majority-sceptics who only adopt an innovation after most other people have tried it.
- These form the next 39% of the adopting consumers.
- Laggards-the most tradition-bound.
- Laggards are suspicious of changes and innovation.
- They tend only to adopt the innovation when it has become widely accepted.
- Laggards are about 13%.

Figure 3 presents a model of Financial-Economic-Ecological (FEE) analysis.

The model of Financial-Economic-Ecological (FEE) analysis presented has as its starting point the 3 categories of performers [10, 11]:

- Intern performers
- Joint performers
- External performers

Information (including conclusions) of economic analysis conducted can be passed to the three distinct pathways:

- Domestic Customers _ Direct (Official) _ Company (trader)
- Indirect (unofficial) _ Company (trader)
- External Customers (with respect ownership) _ Indirect Competition (banks) _ Company (trader)

The four components of the marketing mix (the four “P-s”):

- Product (P1);
- Price (P2);
- Promoting (P3);
- Placement-Distribution (P4).

and their correlation is very important for an efficient management in materials’ industry.

The analysis of the correlations between the 4 “P-s” (the four components of the marketing mix) and their management in metallurgy are also very important.

The Main Correlations Between the Marketing Mix Components for Precious Metals: In figure no. 3 there are briefly presented the main correlations between the 4 marketing mix components (the 4 “P-s”) for a product within the materials’ industry, including precious metals industry.

Aspects Regarding Management:

- The biunivocal correlation Product (P1)-Promoting (P2) is based on assuring the quality of the product.
- An important role in optimizing the correlation (1) is held by advertising directly correlated with the product’ s quality level.
- The Product (P1) needs and determines technological development for assuring the quality technical requirements.
- The biunivocal correlation Product (P1)-and Price (P3) is based on cutting of production costs.

- The level of technological optimization is directly correlated with the product’s quality.
- A good (low) price of the product assures good placement condition of it.
- A good placement of the product can lead to a good price (optimal in direct correlation with the sales level).

The lower the price (P3) is (which is facilitated by a high level of technological optimization), the higher the profit (benefit) is, which allows investing it in research-development.

The analysis of the main correlation between the 4 marketing mix components in a case of a product from the materials’ industry (presented in figure 3) highlights the importance of management in order to optimize that product.

Figure 4 presents the main correlations between the functional and constructive betterments regarding a product of precious metals.

It is to be noticed that in order to obtain an optimal marketing mix for a product from the materials’ industry, the technological optimization management must focus on both functional and constructive betterments.

The functional betterments need constructive betterments and constructive betterments generate functional betterments.

An important component of the marketing mix for precious metals product is the quality and the cost control activity.

The main steps of the quality and cost control activity management for precious metals product are:

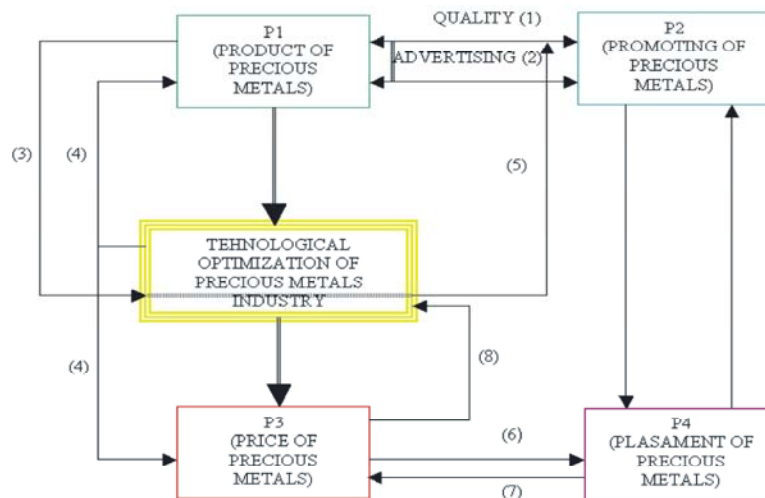


Fig 3: The main correlations between the four marketing mix components for precious metals product

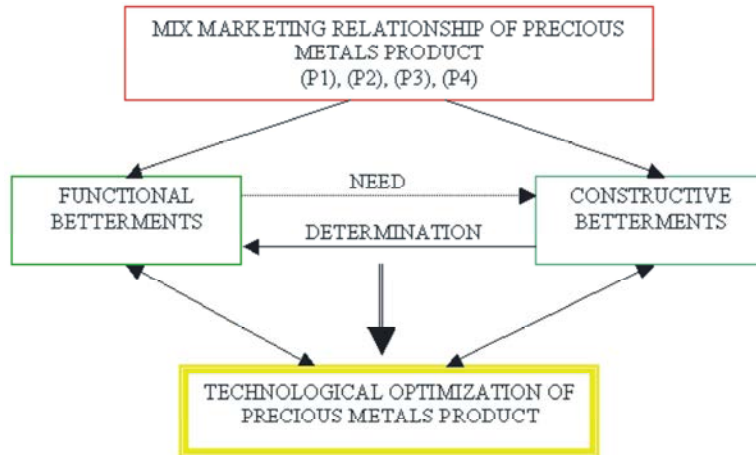


Fig 4: The main correlation between the functional and constructive betterments in the technology of precious metals product

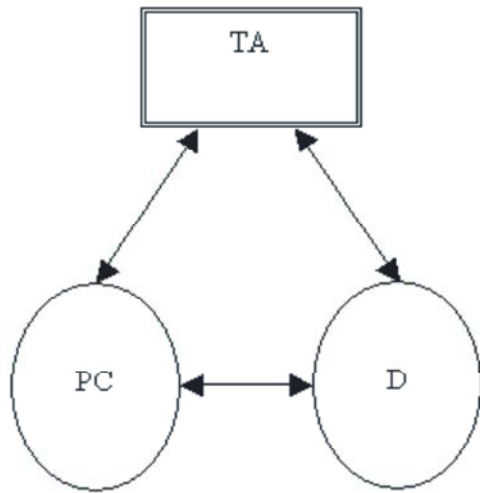


Fig 5: Model of Turnover Analysis (TA) in conjunction with the Production Capacity (PC) and demand (D)

For Level of Precious Metals Product Completion (LPMPC), with the Following Components:

- Precious Metals Product Planning (PMPP)
- Precious Metals Product Conceiving (PMPC)
- Precious Metals Preparing Production (PMPP)
- Precious Metals Production (PMP)
- Precious Metals Marketing (PMM)

For Precious Metals Quality Control Activity (PMQCA), with the Following Components:

- Planning the Overall Precious Metals Product Quality (POPMPQ)

- Planning the Actual Precious Metals Product Quality (PAPMPQ)
- Conceiving the Actual Precious Metals Product Quality (CAPMPQ)
- Prescribing the Precious Metals Quality Control Elements (PPMQCE)
- QC Process Control (QCPC)
- Researches Regarding Quality in the Market (RRQM)

For Precious Metals Cost Control Activity (Pmcca), with the Following Components:

- Precious Metals Profit Planning (PMPP)
- Precious Metals Planning Raw Materials (PMPRM)
- Precious Metals Cost Cut of Program (PMCCP)
- Precious Metals Raw Materials Cost Evaluation (PMRMCE)
- Precious Metals Real Cost Evaluated of Cost Components (PMRCECC)
- Activity of Raw Materials Cost Cutting (ARMCC)
- Present Situation Evaluation and Analysis of the Disparity (PSEAD)

The level of the product's completion is to be noticed. This based on the following activities: planning the product, conceiving the product, preparing production and marketing.

Another management and economic analysis model for precious metals product is Turnover Analysis (TA) in conjunction with the Production Capacity (PC) and demand (D). Figure 5 shows the schematic of this model.

For turnover analysis (T) in conjunction with the production capacity (PC) and demand (D) I define the following indicators:

- Utilization of Production Capacity (UPC) = $\{[\text{Production Made (PM)}] / [\text{Production Capacity (PC)}]\} \times 100 [\%]$
- Meet Demand (MD) = $\{[\text{Turnover from Core Business (TCB)}] / [\text{Demand (D)}]\} \times 100 [\%]$
- Relationship between Turnover and Production Made (T/PM) = $\text{Turnover from Core Business (TCB)} / \text{Production Made (PM)}$

CONCLUSION

Financial-Economic Analysis (FEA) is very important for business activity efficiency, including for precious metals product.

The correct choice of the object of financial-economic analysis (the technological activity analysis of a company, the analysis of equipment, the analysis of the production costs, the analysis of labor productivity, the analysis of the goods flow etc) is also very important.

The synthesis is an important component of the financial-economic analysis.

Analysis of five consumer groups (Innovators, Early Adopters, Early Majority, Late Majority, Laggards) highlighted:

- Innovators put the innovation on show to create the image of being venturesome. They are likely to communicate with and persuade others to try the product, including for precious metals product. The innovators are clearly critical to the process of adoption.
- Early adopters-tend to the opinion leaders and to adopt new ideas early but carefully.
- Early majority-people regards as being deliberate in their decision, who are rarely leaders.
- Late majority-sceptics who only adopt an innovation after most other people have tried it.
- Laggards are suspicious of changes and innovation. They tend only to adopt the innovation when it has become widely accepted.

Model of financial-economic analysis presented has as its starting point the three categories of performers: intern performers, joint performers, external performers.

The marketing mix analysis for precious metals product highlights the importance of the technological optimization in order to obtain an optimum in the field.

The technological optimization in the precious metals product is based on functional and constructive betterments. The optimization of the biunivocal correlation between them (need-determination) assures the efficiency of the marketing mix of precious metals product.

The main correlations between the four marketing mix components for precious metals product mainly highlights: an important role in optimizing the correlation Product-Promoting is held by advertising directly correlated with the product's quality level; the level of technological optimization is directly correlated with the product's quality; the precious metals product needs and determines technological development for assuring the quality technical requirements; a good placement of precious metals product can lead to a good price (optimal in direct correlation with the sales level).

The quality and the cost control activity are very important components of the marketing mix for precious metals product.

We have presented and analyzed new concepts such as: Level of Precious Metals Product Completion (LPPMC), Precious Metals Quality Control Activity (PMQCA), Precious Metals Cost Control Activity (PMCCA).

An important management and economic analysis model is Turnover Analysis (TA) in conjunction with the production capacity (PC) and demand (D).

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