

Implementation of International Accounting Standards in Multinational Corporations as a Factor of Competitiveness

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Abstract – This paper presents an investigation regarding the birth and implementation of international accounting standards and the companies that should adopt these standards, the difficulties they have to face in accounting, financial and fiscal matters, as well as the processes of change that sometimes they cannot be immediate, but must be gradual, as well as the benefits that the adoption of said regulations implies when it refers to companies that invade international markets and that move in diverse environments. It is also intended to provide information to the companies on the scope of the main accounting changes that could be generated by the adoption of International Financial Reporting Standards (IFRS) in the preparation of their financial information, as well as providing a practical overview with the description of the main differences between IFRS and Mexican Financial Reporting Standards (NIF)

Keywords – Harmonization, International Accounting, Multinational Corporation, Standard.

I. INTRODUCTION

In recent decades there has been a process of internationalization of relations of a social, political nature and, above all, of economic activity that has led to the projection of accounting information to an international environment.

Most of the studies on comparative accounting have been based on what can be called the technical aspects of financial information and not on the historical, political, cultural and economic context of the countries under study.

All this explains the existence of cultural values shared by a majority of developed and developing countries, without this implying the absence of cultural identities of a different order: regional or national.

This work presents the birth of international accounting as an inherent need to change the businesses that have invaded international markets, with different cultures, currencies and language, and that the need to carry out these businesses, leads to establish agreements in accounting and general rules that allow something that represents a core aspect of international accounting, this is Harmonization, which means that each country can have its own rules, as long as they do not conflict with those of another country, Business agreements can be made.

II. DESCRIPTION OF THE PROBLEM

International accounting, is understood as the globalization of practices, procedures, techniques and models in accounting, auditing, ethics, education and good governance and arises from the need of the market of financial capitalism, to control and report more effectively

their resources accumulated (Doupnik and Perera, 2007).

1st Stage It arises in the decade of the 60's:

It is characterized by the development of companies that project activities in 2 or more countries, then the growth of international business and the development of multinational companies, the internationalization of the capital market, the increase in foreign investments of companies operating in different countries and all This led to the need to obtain comparable financial information.

The International Accounting is the effect created by the economic opening, result of the globalization of the markets, this one has as purpose, to help to eliminate the accounting obstacles between the countries, allowing the free circulation of goods and services, where all the actors have equality of conditions, maintaining the balance between internal accounting practices given their particular characteristics and international accounting practices.

Mantilla (2013), has written several articles where he has analyzed the implications of International Accounting, studying the difficulties derived from this topic and proposing the possible paths to which International Accounting should be directed. So, it is convenient to consider these valuations to obtain the necessary instruments so that the accounting profession continues with a development that is not static, but mainly advances in the underdeveloped countries.

III. OBJECTIVES

3.1 General Objective:

Present the birth of international accounting as an inherent need to change the businesses that have invaded international markets, with different cultures, currencies and language.

3.1.2 Specific Objectives:

Present the birth of international standards.

Establish the importance of harmonization in international standards.

Demonstrate that the application of international standards in the accounting of multinational corporations, allows them to be competitive.

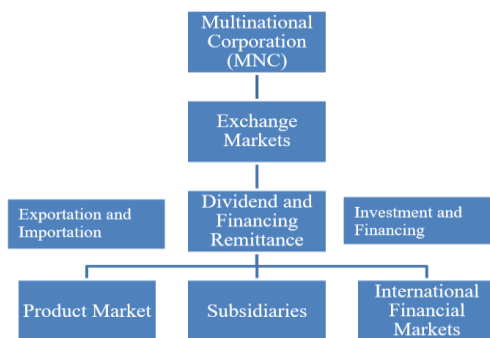
IV. THEORETICAL FRAMEWORK

4.1 Factors that Influence the Internationalization of Accounting

4.1.1 Rise of Multinational Companies

The emergence and development of companies that project their activity in two or more countries was the focus of international accounting in its first stage (decade of the 60's), then the important growth of international business

and the strong development of activities of multinational companies, the internationalization of the capital market, as well as the increase in foreign direct investments of companies that operate in several countries, have led to the need to obtain comparable financial information.



Graph No. 1 The International Financial Environment
Source: Own elaboration based on: Doupnik 2007

The graph shows the situation of the CMNs, in an environment where they are influenced by international markets, and the figure that represents them in another country is the Subsidiary.

4.2 Administration of the Multinational Corporation

The commonly accepted goal of a MNC is to maximize the wealth of its shareholders. Managers who work at a MNC are expected to make decisions that maximize the price of the shares and, therefore, serve the shareholders. Some public MNCs that have their headquarters outside of their country may have additional goals, such as satisfying their own governments, banks or employees. However, at present, these MNCs emphasize more the satisfaction of shareholders, to obtain more easily the necessary funds to support their operations.

Historically, the phenomenon of the MNC, as well as some of its current characteristics, has to do with the number of transactions that began to be carried out by these types of companies at this time, which were no longer local, but invading Foreign markets, this is international, where they had to comply with quality, price, quantity and exchange rate requirements, since when trading with another country the exchange of currency should also be considered.

In this way we can reach the point where it is necessary to define what the multinational company is. It can be noted the proliferation of MNC definitions found in the literature, in this respect Duran Herrera and Santillana, 2010 define these companies as: "we understand by multinational company any economic unit that directs and controls productive activities in two or more countries" and is characterized by:

- Develop and control activities in two or more countries.
- The dependence of its objective function on the results achieved in two or more States.
- The formulation of strategic decisions based on the alternatives that best enable the achievement of the main objectives of the MNC system.

Other characteristics that in general, can be observed in the MNC, derived to some extent from the previous ones are:

- Its multi-plant and multi-product character.
- The use of management and administration techniques more advanced -
- A major effort in research and development (X + D).

Regarding your Objectives:

The maximization of surplus and growth is pointed out as the main goals of the large private company.

This objective function is translated for the great CMN in the maximization of the global financial surplus and the growth of the controlled productive assets.

These objectives are manifested, at the operational level, in the maximization of the current value, of the net cash flows at the global level and in the greatest possible access of the subsidiaries to the local financing sources, as presented in this paper.

4.3. The Separation of Ownership and Control: Agency Theory

4.3.1 How to Deal with the Problems of the Agency?

Managers of a MNC can make decisions that conflict with the company's goal of maximizing the wealth of its shareholders. For example, the decision to establish a subsidiary in one place instead of another may be based on the attractiveness of the location for a manager and not on the potential benefits for shareholders.

The decision to expand a subsidiary may be motivated by the manager's desire to receive greater compensation and not in the interest of increasing the value of the MNC. This conflict of goals between the managers of a company and the shareholders is often known as an agency problem.

The costs of making sure that managers maximize shareholder wealth (known as agency costs) are often higher for MNCs than for national companies for several reasons:

First, MNCs with subsidiaries around the world can experience more serious agency problems because it is more difficult for managers to monitor distant subsidiaries in foreign countries.

Second, the managers of subsidiaries abroad grew up in different cultures that may not pursue the same goals. Third, the size of the larger MNCs can create potential agency problems (Alcarria, 2009).

4.3.2 Matrix Control Over Agency Problems

The parent company of a MNC may be able to avoid agency problems with proper control. You should clearly communicate the goals of each subsidiary to ensure that all focus on maximizing the value of the MNCs, rather than the values of each. The parent company can supervise the decisions of the subsidiaries to verify if the managers comply with the goals of the MNC. Likewise, the parent company can implement compensation plans for the managers of the subsidiaries that comply with the goals of the MNC.

4.3.3 Corporate Control of Agency Problems

There are also several forms of corporate control that can help avoid agency problems and, therefore, ensure that managers make decisions that satisfy MNC shareholders. If MNC managers make wrong decisions that reduce their

value, it is likely that another company can acquire it at a lower price and dismiss mediocre managers.

4.4. Procedures in the Accounting Register

The consolidation of information (economic-financial) involving entities (subsidiaries-agencies-branches) of different countries, with different currencies and with different accounting principles, has led to the need to achieve more objectivity in the information and a favorable cost-benefit relation for the entities-companies, internationally accepted practices are proposed.

4.4.1 Pressure of Multinational Companies in Accounting Development

This globalization of the world economy influences both the demand and the supply of financial information, the MNCs influence their subsidiaries present in other countries in the development and application of their accounting systems.

4.4.2 Growing Capital Market

Public securities markets are an important source of funding for the entities-companies, which overcome the barriers of the borders between the countries and the local market, to seek international financing, as well as investors who do not limit their funds to financing of local activities but diversify their investment in several countries.

Capital markets include:

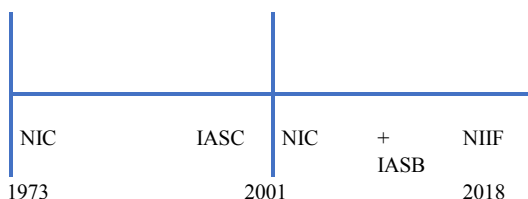
1. Financial markets
2. Insurance markets
3. Securities Markets

The old Norms (NICs) are implicit in the International Financial Reporting Standards (IFRS), also known by their acronym in English as IFRS (International Financial Reporting Standard), are accounting standards adopted by the IASB, a private institution based in London.

These documents constitute the International Standards or international standards in the development of the accounting activity and represent an Accounting Manual, since they establish the guidelines for keeping the accounting in the way it is acceptable in the world.

The standards are known by the acronym NIC and IFRS depending on when they were approved and are qualified through the interpretations that are known by the acronym SIC and CINIIF.

The accounting standards issued between 1973 and 2001 are called International Accounting Standards (NIC) and were issued by the International Accounting Standards Committee (IASC), precedent of the current IASB. Since April 2001, the year in which the IASB was established, this body adopted all the NICs and continued its development, calling the new standards International Financial Reporting Standards (IFRS) (IMCP, 2018).



Graph 2 Timeline of the adoption of Accounting Standards

Source: Own elaboration, based on Doupnik 2015

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In Spanish, it must be considered that the IAS are the NICs, the IFRS are the IFRS, the SICs are the INICs

Beginning in 2012, public entities in Mexico will have to submit, on a mandatory basis, their financial statements prepared based on the International Financial Reporting Standards (IFRS), issued by the International Accounting Standard Board (IASB), in accordance with the press release no. 056/2008, published on November 11, 2008 by the National Banking and Securities Commission in Mexico (CNBV).

The adoption, according to the CNBV, will entail various benefits for the market and for the investing public, among them:

1. Facilitate, both analysts and national and foreign investors, the comparison of financial information of Mexican broadcasters with that of other countries' broadcasters, thanks to the homogeneity that will be obtained in the information contained in the financial reports with respect to the used in an increasingly important number of markets around the world.
2. Eliminate the additional costs that represent the preparation of financial information under various accounting standards (for example, the country of origin of a station and the countries where its securities are listed).
3. Facilitate the preparation of consolidated financial statements, in the case of economic groups that have a presence in various countries.
4. Facilitate the issuance of securities in the Mexican market by foreign issuers, accepting as valid the financial statements prepared based on the International Financial Reporting Standards.
5. Regardless of the benefits pointed out by the CNBV, it is important for the entities to reflect on the impact that the adoption of international standards has on the taking of financial, operational and, of course, accounting decisions, as well as the impact and changes that users and analysts will have to perform to use the financial information prepared under international standards (IMCP, 2016).

Mexico has remained immersed in a process of continuous change in accounting policies, the adoption of IFRS can cause various problems, including the amount of historical information that must be collected to present financial information; the additional effort to adopt new regulations with new requirements for disclosure, presentation and evaluation; the application of an accounting system whose fundamental basis is professional judgment, and the lack of previous experience that can serve as a frame of reference.

The European experience, according to studies by UNCTAD, 2008, shows that adopting IFRS does not only mean a limited technical exercise to change one set of accounting standards to another, but goes much further.

European entities had to implement valuation and monitoring processes of derivative instruments, acquired information systems capable of carrying out double accounting and control for tax and financial purposes in accordance with the requirements of IFRS, and so on. These examples involve situations that in themselves could affect both the different areas and structures of the organization, as well as their internal control.

4.5. *Difficulties of Harmonization in International Accounting*

The asymmetry of the countries has created difficulties in the attempt to establish an international accounting (Tua, 2004).

Excessive specific weight of the countries of the Anglo-Saxon area; Orientation towards accounting models that allow the provision of information on protection and patrimonial aspects; Failure to comply with the rules; Excessive permissiveness regarding the alternatives to follow; Poor coordination with regional organizations; Excessive specific weight of the countries of the Anglo-Saxon area.

It is well known that the entities in charge of accounting harmonization, the IASB (formerly IASC), since its creation in 1973 until 2001, have been under the direction of 13 presidents, where the United States and England and their areas of influence have predominated. It stands out that no Spanish-speaking country has occupied this place.

Considering the predominance of the Anglo-Saxon countries in the entities in charge of issuing International Accounting Standards, we have seen their orientation to the Anglo-Saxon accounting models, although it is logical because these are the most developed and developed in the world.

Do not forget that it is very important to take into account the characteristics of each country, since, thus, the accounting model to be implemented may be the same used in the most developed countries, this does not mean that it is the right one to follow in any another country, because the economic environment is completely different, as are the objectives and accounting needs.

In relation to the little or scarce participation of the countries in the development of International Accounting, there is at the same time a lack of commitment to the compliance and adoption of the guidelines established as international standards.

We must emphasize the great difficulties that have arisen in terms of the interpretations that each specific accounting system has given to the standards, since, as has been said, international standards strictly obey the guidelines and characteristics of the IASB member countries.

4.6. *International Accounting and its Evolution.*

The accounting has evolved enormously in the hand of the internationalization of the same and globalization, today the accounting profession moves in other fields completely different from those of a few years ago, in which the public accountant was limited to present the user, information of tax rate, without generating added value to the company; Today's professional accountant must update his methodology, orienting himself towards consultancy and advisory schemes, in order to provide information users wi-

-th complete and error-free solutions (Mantilla, 2013).

The new international scenarios according to Mantilla in which the accounting profession moves, summarizes them in five points:

1. Impact of information technology.
2. Change in the relationship with the client.
3. Sustainability and transparency.
4. From the public accountant to professional accountants.
5. Change of curriculum; It's time to adopt international standards.

"Accounting is the language of business, hence the insistence that there is only one language to speak when doing big business, that language is the International Accounting and Auditing Standards" (Mantilla, 2013).

In the era of consolidation of the so-called monopoly capitalism, a significant number of European and North American companies begin to internationalize their activities, mainly in primary sectors (extractive, agricultural, etc.).

In addition, it is convenient to highlight the beginning of the internationalization of its activities by some of the current large MNCs, currently. As Van H. (2013) points out, the old Singer sewing machine company was a multinational company at the end of the 19th century, and by the 1920s both Ford and General Motors had built manufacturing plants in a long series of countries Some European companies, for their part, such as Nestlé and Royal, as well as Dutch Shell, had extended their operations to E.E.U.U.

In this way the precursors of modern multinational companies began to extend beyond their borders in significant numbers from the 1860s.

Among the pioneers was Friedrich Bayer, who acquired a stake in an aniline factory in Albany in New York State in 1865, two years after establishing his own chemical company near Cologne in 1866 the Swedish Alfred Nobel, inventor of the dynamite, established an explosives factory in Hamburg.

4.7 *Investments in the Multinational Corporation*

The basic principles for the evaluation of investments abroad are the same as those used for the evaluation of a domestic investment. However, as indicated by Weston and Sorge (2009), we must consider some differential aspects such as the following:

- 1) The number of variables to be considered is greater in the evaluation of an investment abroad.
- 2) The estimation of net cash flows is more complex.
- 3) The risk analysis and the profitability of the investment present greater difficulties.
- 4) On the other hand, the analysis of investments at an international level is more complex than at the domestic level due to the following factors:
 - a) The need to distinguish between the cash-flows of the project and the cash-flows obtained by the matrix.
 - b) The existence of different tax systems, restrictions on cash flows, different markets and financial institutions, etc.
 - c) The different national inflation rates can alter the competitiveness of the subsidiary in question.

- d) Fluctuations in exchange rates can also harm the competitiveness of the subsidiary, object of analysis.
- e) Fluctuations in exchange rates not compensated by differences in the inflation rates of the nations involved increase the probability of changes in the value of the net flows of the subsidiary.
- f) The segmentation of the national capital markets can create an opportunity to obtain additional benefits or to incur higher financial costs.
- g) Political risks can drastically reduce the value of foreign investment.
- h) The possible residual value of the investment is difficult to estimate because of the different market values that will be perceived by potential local buyers, from the country of the parent company or from third countries.

Due to the problems described above of the evaluation of an investment project in a foreign country, it has been proposed by some authors to use the criterion of the period or recovery period (pay-back or pay-off) in the analysis of projects in countries considered of a high level of economic-political risk.

V. METHODOLOGY

The present research seeks through a qualitative analysis, and a descriptive exploratory design, to explain the stages that the current accounting system has had to live, the research based on documents such as books, magazines and articles related to the subject, allowed to contribute information from the emergence until the most recent on the subject.

VI. RESULTS

The accountant must be updated since the modern world revolves around the economic efficiency schemes, to ensure quality and competitiveness.

The factors that determine the differences between the accounting systems and that are largely a function of the environment of each country must be analyzed, defining the concept of culture, highlighting the interpretation made by different authors.

Also, perform a specific analysis of existing cultural values in the international arena, determine the main accounting values that influence the subculture of the regulatory agents and issuers of accounting information, assess management accounting systems as an elaborated product, among others, by the accountants and addressed to some clients, the users of the information, study the cultural transfer process that takes place and its impact on the management accounting system between the parent company and the subsidiary in multinational companies.

The differences between the accounting systems exist and are due basically to the different economic, political, social and cultural environments that give rise to different accounting systems. The existence of diverse legal and tax systems, different cultures, different development of the accounting profession, among many other factors, make the regulation and accounting practices differ significantly bet-

-ween countries.

In this sense, it can be considered that there is a practically total consensus in the recognition of the causes that determine the differences between the accounting systems and that are largely a function of the environment of each country and among which the following can be highlighted:

The legal system of each country has important repercussions on the behavior of individuals, as well as on the accounting regulations adopted and on accounting practices. In this sense, traditionally there are two differentiated systems: the one based on Roman Law, of a legalistic nature, and the one based on the Common Law, of non-legalistic orientation.

In this way, given the impact of the legal system on the differences between accounting systems, it is worth noting the important task of better understanding how the legal system and the accounting system of a country relate to each other.

Main providers of business financing: The business financing model has important repercussions on the financial information produced by companies. In this sense, depending on the needs of the main financing provider, the information will adopt one or another orientation.

Cultural factors: Until recently, it is worth mentioning the lack of importance given to the influence of the cultural dimension in the development of accounting. In this sense, Gray (1988) based on the classification of the cultural dimensions of Hofstede (1980) proposes a model in which he establishes four accounting values that make up what he calls "accounting subculture":

- 1) Professionalism versus regulatory control
- 2) Uniformity versus flexibility
- 3) Conservatism versus optimism
- 4) Secret versus transparency

Users of accounting information: One of the factors that generate differences in accounting systems can be considered the existence of different users of information published by companies from country to country, which also differ in the information they wish to obtain to satisfy your information needs

Influence of the accounting profession: The influence that professional organizations exercise in the process of drafting accounting regulations, as well as their implementation will depend on the level of development that the same has acquired, as well as the power and competence that the accounting profession possesses.

Table 1 Current International Accounting Standards

- IAS (Acronym in English) NIC (Acronym in Spanish)
- IAS 1 Presentation of Financial Statements
- IAS 2 Inventories
- IAS 7 Statement of cash flow
- IAS 8 Accounting policies, changes in accounting estimates and errors
- IAS 10 Events after the balance sheet date
- IAS 12 Income tax
- IAS 16 Property, plant and equipment
- IAS 17 Leases
- IAS 19 Employee benefits

IAS 20 Accounting for government donations and disclosure of government assistance
IAS 21 Effects of changes in foreign exchange rates
IAS 23 Debt costs
IAS 24 Related party disclosures
IAS 26 Accounting and financial information on retirement benefit plans
IAS 27 Consolidated and Separate Financial Statements
IAS 28 Investments in associates and Joint ventures
IAS 29 Financial information in hyperinflationary economies
IAS 32 Financial instruments: presentation
IAS 33 Earnings per share
IAS 34 Interim financial information
IAS 36 Impairment of assets
IAS 37 Provisions, contingent liabilities and contingent assets
IAS 38 Intangible assets
IAS 39 Financial Instruments: Recognition and Measurement
IAS 40 Investment property
IAS 41 Agriculture

Source: Own elaboration, based on Hennie Van Greuning, 2013

Table 2 Current International Financial Standards

IFRS (Acronym in English) IFRS (Acronym in Spanish)
IFRS 1 Adoption for the first time
IFRS 2 Compensation based on actions-conditions for irrevocability and cancellations
IFRS 3 Business Combinations
IFRS 4 Insurance contract
IFRS 5 Non-current assets available for sale and discontinued operations
IFRS 6 Exploration and exploitation of natural resources
IFRS 7 Disclosure of financial instruments
IFRS 8 Operating segments
IFRS 9 Financial Instruments
IFRS 10 Consolidated financial statements
IFRS 11 Joint agreements
IFRS 12 Disclosure of participation in other entities
IFRS 13 Fair value
IFRS 14 Deferred Accounts for Regulated Activities
IFRS 15 Revenue from Ordinary Activities From contracts with customers

Source: Own elaboration, based on Hennie Van Greuning, 2013

VII. CONCLUSIONS

The difficulties that arise in this process cannot be an obstacle that prevents the development of International Accounting, at the same time it is the mission of all countries to participate actively in the creation of standards that allow our markets to be competitive in the outside, and that the information is the most transparent, reliable and comparable.

The fact that management information systems, which act as a formal communication system to meet the

informational needs of individuals integrated in a group with a given culture, are designed to be introduced and used in the company by human beings that are integrated in a group, the business organization, requires for the elaboration of an adequate design of the accounting information system the knowledge of the different reasons of the individual behavior, of the structure of the interindividual relations and of the shared culture, orientations, values and attitudes.

Through the accounting system, individuals obtain data on facts related to the environment and within the organization, information that they interpret according to their own beliefs and the cultural model established in the company.

In this way, business culture can affect the selection of stimuli for control, induces value judgments about the selected stimulus and facilitates the coordination of accounting systems.

The study of the interaction between the organizational culture and the national culture in companies that operate in different countries, as well as the influence of this on the design and operation characteristics of the information and management control system of said companies is a subject of growing interest in the literature on management accounting.

The changes derived from the increasing globalization of the world economy have made the study of the interaction between the organizational culture and the national culture in companies operating in different countries, as well as a topic of growing interest in the literature on management accounting. The influence of this on the design and operation characteristics of the information and management control system of said companies.

In the case of a multinational company, there may be differences of strategic, structural or action character between the different organizational units that make it up, associated, among other aspects, with the existence of different national cultural values in the different countries in which said units they are located.

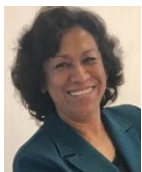
Globalization is inevitable, international accounting will follow its path in the search for a universal language, the creation in the last forty years of the entities in charge of developing standards (IFAC, IASB, IAASB, IPSASB, IAS, IFRS, among others) is the sample of the growing need resulting from international trade.

REFERENCES

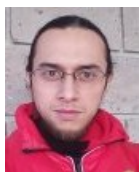
- [1] Alcarria, J. J. (2009). *Financial Accounting I*. Spain: Universitat Jaume.
- [2] Conference of the United Nations on trade and development. (2016). *Corporate social responsibility*. October 12, 2016, United Nations Conference on Trade Website: <http://unctad.org/en/Pages/Home.aspx>
- [3] Doupnik, T., Perera, H. (2007). *International Accounting*. Mexico: Edit. McGraw Hill.
- [4] Gray, S. (1988). *Towards a theory of cultural influence on the development of accounting systems internationally*. Abacus, vol. 24, No. 1, pp.1-15.
- [5] Hofstede, G. (1980). *Culture's Consequences*. Sage publications.
- [6] Mexican Institute of Public Accountants, (2016). *Financial Reporting Standards*. Mexico: IMCP.
- [7] Mantilla, S. (2013). *International Financial Information Standar-*

- ds. Bogotá: Ecoe Ediciones.
- [8] Tua, J. (2004). *Principles of Accounting Theory*. Argentina: Tax Application.
- [9] Van, H. (2013). *International Financial Information Standards, Practical Guide*, fifth edition, World Bank and Mayol Editions.
- [10] Weston, J, F. and Sorge, B, W: (2009). *International Managerial Finance*. Richard D. Irwin, Inc., 1972.

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