

Monsanto: The Great Institutional Strategist

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Abstract This research is based on the relationships between organizations and governments in order to establish common agreements for the good of the society, but all the most to reach a corporate welfare. On this paper we wanted to demonstrate the influence of the coercive power of the law for the more profitable companies. The point of view of the institutions and the theory of the property rights are part of the theoretical framework that has been taken as a reference to describe the relationship they has had with "Monsanto Corporation" and the Mexican government, for entry of transgenic corn in our country. It tries to generate a hypothesis based on data and information gathered to bring in this, that in a general sense, proving the strategy taken by Monsanto Co. to achieve this maize market in Mexico.

Keywords Transgenic Corn, Property Rights, the Point of View of the Institutions

JEL: K11, O13, O31, O34, Q16

1. Introduction

In 2005, under the administration of President Vicente Fox Quezada, Mexico approves the law on biosafety and genetically modified organisms, according to Dellios [1]. Later to this approval, in 2008 there is a regulation of this law for the purpose to regulate and control these organisms, as it has been recorded by Cámara de Diputados [2]. However, in March 6, 2009, an established decree is published in the Official Journal of the Federation (Diario Oficial de la Federación) amending regulations of biosafety law, as stated by Cámara de Diputados, [3], which means that the special protection regime of corn is included within the regulations. With this approach, according to Granados [4] experimental planting of transgenic corn in Mexico was initiated in September of that year.

Despite the pressure generated by various political and public figures, social activists and experimenting and testing of these organisms of corn are now a reality, thanks to the powerful strategic alliances American Chemical Monsanto. However, it must be emphasized that new technologies have

reached the human beings and food production has to be multiplied in order to obtain food sovereignty and avoid food lags nationally. The varieties of genetic modified (GM) crops are an efficient technology, growing and controversial. Its effects on biological and cultural diversity are a key issue in a polarized debate often.

Socio-economic changes, such as migration, trade liberalization and reduced support to Mexican farmers are also variables or factors that can affect the diversity of maize. Diversity may increase, decrease, or remain by itself. This project does not attempt to determine whether the entry of these products in Mexico is good or bad. This will depend on the subjective values. So, it is demonstrated that the use of property rights has contributed to Monsanto to exercise bargaining power against farmers. A relatively notorious case in the media and on social networks, which can talk a lot but most of the opinions are lacking empirical evidence to sustain themselves, are value judgments which have prevailed when manifest for or against.

2. Background

A. Acquisitions

Monsanto Co. announced in May 1998 that it had reached an agreement to acquire two seed companies DEKALB Genetics Corporation (NYSE: DBK), based in DeKalb, Illinois, and Delta & Pine Land Company (NYSE: PLD), based in Scott, Mississippi. These companies have an important role in strategy of science at Monsanto [5], which is designed to enhance the sustainable production of food and create new possibilities for improving nutrition and health by linking Monsanto's experience in agriculture, food and pharmaceuticals.

These acquisitions expand the availability of the agronomic characteristics; the first wave of traits developed through biotechnology, and gives more to farmers around the world access to production and the benefits of improved crop productivity through this technology. They also prepare the way for the rapid introduction of the second wave of biotech traits that enhance fiber composition, the nutritional composition of food processors, and provide new tools to

improve the value of cereals and oilseed.

Delta & Pine Land is a leading breeder, seed production and marketing of cotton. Currently sells Monsanto's Bollgard and Ingard insect-protected cotton in the United States, Mexico, Australia and China, and Roundup Ready cotton in the United States. International experience of Delta & Pine Land in the marketing of crops developed through biotechnology has enabled these new seeds quickly lead to global markets. This will help in part of Monsanto's strategy to penetrate the Latin American market in order to implement its transgenic biotechnology.

B. Background of Transgenic

Moreover, engineering genetically modified varieties (TGV) has expanded rapidly over the past 10 years, more and more traditional agricultural systems (TBAS) in the Third World as well as seed and food. Their proponents claim that TGV are key to reducing hunger and negative environmental impacts of agriculture. Opponents say they have the opposite effect. The risk management process is the main way that the TGVs are regulated in the U.S. (and many other industrialized countries), and the authors state that the results of this process have different regulatory consequences in the U.S. and should be extended to traditional parcels.

In a study by Soleri, Cleveland and Cuevas [6] where they interviewed 334 farmers in Cuba, Guatemala and Mexico on agricultural practices, potential damage assessments through scenarios, and the classification of types of corn. The results suggest a high potential for transgenic flow through seed and pollen grains, differences in the effects of this exposure of the TBAs compared to industrial agriculture, farmers see some possible harmful consequences. Nevertheless Monsanto entry is predictable, because, as Eggertsson [7] argues, the firms can use strategies using property rights and alliances with institutions.

This can be especially true with the distribution and the spatial scale of the corn fields in many traditional parcels. While the average farm size of kernels of corn in the U.S. in 2003 was 79.2 ha (USDA NASS, 2004), in Oaxaca, Mexico for over 76% of corn farms are less than 5% according to INEGI (2001). Based on the average number of fields per household in the sample there are approximately 753 corn fields in Santa Ines Yatzeche. It would take a large number of small corn fields to monitor if it is required crop shelters, and if they are physically and economically feasible. Therefore, the management of the evolution of resistance to pests has different strategies in.

However, while most discussion about GM flows and industrial systems TBAS assumed that minimization is the objective, there is evidence that gene flow is extensive and critical to the genetic health of local populations of corn, according to Pressoir and Berthaud, [8].

C. Involvement Process to the Diversity of Mexican Maize

It should stand out some arguments of those opposed to

the new transgenic biotechnology and emphasize the fact that Mexican corn could be affected according to studies by scientists. Then explain the characteristics of transgenic corn seed and its effect to the environment however, this does not limit the actors to put aside their claims.

Now according to Soleri, Cleveland and Aragon [9], GM maize could increase or decrease the diversity of maize, or may not have any effect. Gene flow and long-term effects on the diversity of the host population depend on a number of variables, including the size of the donor and recipient populations, the rate of seed and pollen flow and fertilization and fitness relative and absolute of hybrids, which are determined by genetic, ecological and sociocultural processes of specific agricultural systems. The flow of the seeds is the first step in the flow of transgenic genes, followed by cross-pollination, hybridization, and introgression or incorporation of a transgenic into the host genome with stable inheritance.

3. Justification

Mexico has become a country potentially important for companies like Monsanto itself to unleashing a variety of GM maize. The field in Mexico represents a great deal for the food industry. In countries that have authorized the cultivation of GM maize, as Soleri, Cleveland and Aragon [10] have shown that it is difficult for them to coexist with conventional varieties, native and organic. This coupled with the question that the Mexican government has given and in turn has opened up the possibility of allowing pilot tests to bring transgenic maize and market through the framework of the law, according to SIGA [11]. This certainly gives pause to anyone who has known about this in that there is something strange, perhaps corruption, or perhaps good intentions of governments, that cannot be known for sure, but these factors have been determined and motivated to carry out this.

It is important enough to generate information to empirically observe that these chemical company strategies have generated good returns. In the present it highlights the interest of knowing for sure what could be the mechanisms inherent in the market in order to find more benefits and business skills to Monsanto, without doubt, this should be the most important goal as scholars of a business curriculum.

As has been seen in academics and from the perspective of organization theory, is inferred by Scott [12] that it is always important to build weak and strong institutional ties across firms with the aim of increasing their benefits. According to North [13] laws are the rules of the game, which is always good to know in order to benefit. However, remained always suspected the honesty of public officials and corporations. So, is our need to consider these organizational theories to reach a conclusion as objective as possible and without being biased, i.e. without stress if socially is right or wrong this entry strategy of biotechnology in Mexico.

4. Research Question

What are the strategies adopted by Monsanto to enter Mexico?

5. Theoretical Framework

A. Vision-based Institutions and New Institutional Economics (NIE)

Institutions help to reduce uncertainty and provide a structure for the everyday, Williamson [14] has noted that the regulatory pillar is the coercive power of governments within formal institutions. Include laws, rules, procedures and rules. Regarding informal institutions, Peng [15] says that the two main areas are the training and cognitive:

- 1) Training. It refers to the values, beliefs and actions of others that influence the behavior of individuals or businesses.
- 2) Cognitive. They are related to internal values and beliefs that are the essence of the company. Also they guide the behavior of individuals and firms.

These institutions govern the lives of consumers of good and users of services. Williamson [16] says that from this point of view there are two important levels to consider:

- 1) The first level of these institutions are those that are most deeply rooted in our lives and play a key role from birth, these are the customs, norms, morals, traditions, where religious, other nested institutions are who idealize these concepts among societies.
- 2) In the second group of NIE that influence around a firm are environmental institutions or abroad. It is here where the government of a country plays the most critical because it is where the laws of each country vary. It can be said in other words that one level of institutions are informal rules, and at level two are "the formal rules of the game".

Monsanto is a chemical company that brings biotechnology to maintain a sustainable supply. However, in Mexico there is a great culture, which is rooted in its values and customs. It is a conservative society, traditionalist in most states and is aware of its roots. But it cannot be generalized, because the influence of Yankee culture has affected in some way. To get the final permit to grow and market this maize in Mexico, Monsanto would have a fireproof as there is a lot of pressure from farmers, political, social and activists to stop entry and cannot come. The general public may reject this type of food, and knowing that may affect their traditions affect that could be manifested in corporate hatred.

The legal framework of the laws are the formal institutions of a country, and these are likely to be modified or altered in accordance with the interests of the nation or of certain actors who have the power to maintain order and control over the population. These undoubtedly represent the strategic variable that determined the success of this powerful chemical company. However, informal institutions (values

and behaviors), at least in the European Union have shown some animosity on the part of citizens before the arrival of this company.

B. Theory of Property Rights

In the beginning, it is desirable to highlight and mention that there is a close relationship between property rights and formal institutions. Property rights are defined as immediate use and enjoyment of movable or immovable goods. Property rights are exercised in accordance with the needs to protect, among other things, intellectual property; it follows from this part of the strategy of Monsanto.

With respect to property rights and the institutions range from formal arrangements, including constitutional provisions, laws and judicial decisions, to informal conventions and customs regarding allocations and uses of the property. Such institutions critically affect decisions regarding the use of resources, and therefore, influence the economic behavior and economic performance of firms.

These provisions are those that have allowed Monsanto has greater power worldwide, since, although they are subject to the local regulations, it is also true that under this scheme have gained strategic competitive advantage over any opponent since the seeds patented are a powerful tool for the implementation of the framework of the law, despite going in affectation of the farmers. Eggertsson [17] observes that organizations and institutions are not immutable. Organizations and institutions vary with time and place, with the political agreements and property rights structures, with the technologies used, and physical qualities of resources and services exchanged. In fact, the production involves not only the physical transformation of inputs into outputs, but also the transfer of property rights among the owners of the resources and labor services.

This is where can be denote-quoted theories at the micro level production factors represent the productivity of the company, capital, labor and land are considered the most important for achieving economic objectives. When they grow at the same rate they are called increasing returns to scale. But there is something that economic theory has not mentioned at all, that is property rights, as they are as productive as labor and capital, an assets representing themselves powerful intangible., that at some point if there are no patents or registered rights can be a handicap against those who ignored this strategy. So as can be shown, according to Eggertsson [18] and based on the information gathered, the strategy adopted by Monsanto is appropriate.

6. Research Assumptions

- A. Property rights such as patents and trademarks are very powerful assets and productive factors for companies when deciding maximize their profits.
- B. A company can enter new markets despite obstacles of various kinds, if used appropriately formal and informal institutions.

7. Analysis of Assumptions

Monsanto is often criticized for the efforts devoted to litigation that are aggressive. They are directed to farmers in order to protect the proprietary technologies genetically modified seeds. This is done through judicial demands. Farmers are intimidated and confined to do their job not to fall into "inadvertent infringement" might surprise since Monsanto file a lawsuit against them.

Farmers usually grown organic products and do not intend to use the seeds from this company often misused Monsanto's patented biotechnology, and thus the seeds of the company were transferred to the land by natural factors. This is where property rights come under the argument that only this company has the legal right on its patented technology. Undoubtedly it is a strategy of applying the rules of the game, where in Latin America and especially in Mexico opens a large gap to potentiate an expansion in these markets. To mitigate the risk that Monsanto could sue for unintentional infringement against farmers who are merely victims of genetic drift, some propose a digital system of notification and removal of copyright law in the context of patents seed. This is done to protect inadvertent offenders without eliminating Monsanto's patent rights.

Dellios [2] notes that activist networks as Green Peace and Avaaz [19] around the world mention that Monsanto threatens to sue farmers if they do not use their seeds, which consequently bring about a corporate monopoly on power over food of humanity on the globe. Avaaz [20] argues, among other things, that once there is a patent in one country, other nations begin receiving enormous pressure, although does not specified from where the pressure, to take them through negotiations and commercial agreements.

In this qualitative analysis and according to the bibliography, one can conclude that only logical reason Monsanto has made relations linking the company with the key institutions that regulate social behavior, mentioned that the company oft has ties with the governments of countries around the world, something that could somehow clarify is that there are former public servants from the federal government now working for the firm and vice versa. But on the website of Monsanto [21], it mentions that both public and private employers benefit when they have access to people with the best experience and the best grades. It is perfectly understandable that someone in the government who has concluded that biotechnology is a positive and beneficial technology goes to work for a biotech company, like someone who thinks differently and find employment within an organization that opposes the agricultural biotechnology.

Should be noted that the company's official site NOT deny the existence of the relationship between government employees and the corporation. With the new legislation passed in Mexico in 2008 of the law of biosafety and genetically modified organisms and is currently allowed regularization of experiments of this kind of organisms,

seem to have changed the rules of the game to take this step of quality.

8. Results

Depending on the methods described were detected very important data contributing to this research with evidence supporting the assumptions of property rights as an important asset for organizations, as well as proper management of the institutions in order to obtain greater benefits economical. Thus in 2006, during the administration of former President Vicente Fox began to grant patents after a wait of five years after Monsanto registered await requests. According to data obtained from FOLLOW (2013) the Mexican Institute of Intellectual Property (IMPI) confirms the assumptions in question, as specified patents licensed to the firm in the period comprising from 2006 to 2012. (See Annex A).

9. Conclusions

Since applications were sent in 2001 to 2006 when the first patent was approved to give entry of GM maize, several events raised coming to predicting the realization of the purpose of Monsanto. Thanks to the fact that was found this empirical evidence of patents, is evident that the above assumptions are too close to the truth, especially the theory of property rights, which has served as an important tool for this multinational company.

Regarding the course of the proper management of institutions to enter new markets is credited part of the course due to a chain of events, same as follows:

- A. Monsanto never denied the fact that former federal government employees have worked in this company and vice versa.
- B. The new rules of the law of GMO Biosafety, which came into force in 2008, in reference to Pantoja [22] brought with it the start of experiments such transgenic corn in Mexico in Sinaloa and Tamaulipas. According to the table presented, from that year shows that the first patent was registered transgenic corn plant. Thus, this put in doubt the purpose of this new regulation.
- C. The malnutrition crisis in Mexico in the lower classes would benefit from increased food production to a lower cost.
- D. The fact that they have clinched the patents described and knowing that GM maize can genetically alter other native species of corn is another reason that makes anyone think that the strategy described is indeed true.

While it is true that these cases could not be fully demonstrated because it is very difficult to enter data for employees of a private company like Monsanto, it is also true that based on the arguments proposed can be said that the assumption is proved partially.

Annex A. Table of Patents Granted in the Period 2006-2012 in Mexico, Concerning Genetically Modified Maize

NUMBER OF PATENT	DATE CONCISION	TITLE	DESCRIPTION
MX 302013 B	03/08/2012	"Plants and improved maize seed for asparagine and protein"	The present invention relates to a plant and seed corn with increased levels of protein and amino acids.
MX 300393 B	19/06/2012	"Event PV-ZMGT32(nk603) on corn and compositions and methods for detecting the same"	The present invention relates to a DNA construction that confers tolerance to a transgenic maize plant.
MX 299985 B	07/06/2012	"Production of high maize tryptophan by chloroplast through targeted expression to the anthranilate synthase"	The present invention relates to vectors and novel expression constructs encoding a chloroplast transit peptide (CTP) operably linked.
MX 287749 B	23/06/2011	"Compositions of corn of high Lysine content, and methods for the detection thereof."	Described herein for testing for the presence of transgenic event increasing lysine content, based on the DNA sequence.
MX 287419 B	10/06/2011	"Methods for producing hybrid seed"	The present invention relates to methods for producing a hybrid seed unnatural; also describes specific RNA and RNA recognition site.
MX 285482 B	08/04/2011	"MON88017 Corn plant, and compositions and methods for detecting the same"	The present invention relates to a corn plant designated MON88017 and DNA compositions contained therein, are also provided evidence for detecting the presence of corn plant MON88017 based on a DNA sequence.
MX 283546 B	01/02/2011	"Plant and seed corn transgenic corresponding to event MON89034, and methods of detection and use thereof"	The present invention relates to a transgenic corn event MON89034 and cells, seeds and plants comprising the DNA diagnostic for corn event. The invention also provides compositions comprising nucleotide sequences that are diagnostic for event of corn in a sample, Cultivate seed of such event of corn in corn plants and fertilize to produce corn plants comprising DNA diagnostics.
MX 269897 B	08/09/2009	"Method to reduce pest damage in corn by treating transgenic corn seeds with pesticide thiamethoxam"	The present invention relates to a method for protecting corn against feeding damage by one or more pests, comprising treating corn seed having a transgenic event.
262107	12/11/2008	"Compositions of corn high content Lysine, and methods for detecting the same"	Described in the present testing for the detection of presence and witness of a transgenic event of increasing lysine content, based on the DNA sequence of the exogenous DNA construct inserted into the corn genome and of genomic sequences flanking the site insertion.
257749	06/06/2008	"Corn plants with improved traits of grain quality"	The present invention relates to methods of producing novel corn plants with improved traits quality grain, comprising using access to corn REN 001 and plants derived there from. The invention further provides methods for producing corn grain with improved traits of quality grain, comprising pollinate hybrid elite maize varieties with pollen from the access from maize REN 001 and plants produced from the same.
238133	27/06/2006	"Event PV-ZMGT32 (nk603) on corn and compositions and methods for detecting the same"	The present invention relates to a DNA construct that confers tolerance to a transgenic maize plant.
237341	30/05/2006	"Processing of transgenic corn seed with clothianidin"	The present invention relates to a method for protecting corn against feeding damage by one or more pests, including the treatment of maize seed. La

Source: Own elaboration based on data from IMPI.

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