



# **ASM Business Review**

**(The Bi-annual Refereed Journal)**

ISSN No. 0974-9136 | Volume - 7 | Number - 1 | January 2018

## **Business Strategies Practices and Innovations**

**ASM GROUP OF INSTITUTES**  
**IBMR | IIBR | IPS | IMCOST | CSIT | GEMS|GJC|EMPROS**

**Survey No 29/1+2A'C' Wing, Opp. Central Mall, Near PCMC building,  
Pune Mumbai Highway, Pimpri, Pune-411019."**

---

Copyright @2018 by the ASM Group of Institutes, Pune, India

All rights reserved.

The views expressed in the articles are those of the contributors and not necessarily of the form of Articles, Case Studies, Research Papers or Book Reviews, No part of this publication may be reproduced or transmitted in any form or by any means, or stored in any pieval system of any nature without prior written permission. Application for permission for other use of copyright material including permission to reproduce extracts in other published works shall be made to the publishers. Full acknowledgment of authors, publishers and source must be given.

Although every case has been taken to avoid error of omissions, this publication is being sold on the condition and understanding that information given in this journal is merely for reference and must not be taken as having authority of or binding in any way on the authors, editors, publishers and sellers who do not owe any responsibility for any damage or loss to any person. A purchaser of this publication or not, for the result of any action taken on the basis of this work. All disputes are subject to Pune jurisdiction only.

**Printing by:**



**Success Publications**

Radha Krishna Apartment, 535, Shaniwar Peth,

Opp.Prabhat Theatre, Pune - 411030.

Contact - 9422025610, 8390848833, 020-24433374, 24434662

Email- marketing@sharpmultinational.com

Website- www.sharpmultinational.com

**Published by :** Audogik Shikshan Mandal

For,

**ASM Group of Institutes**

Address- Survey No 29/1+2A'C' Wing Opp. Central Mall,

Near PCMC building, Pune Mumbai Highway, Pimpri, Pune-411019.

---

## From The Editor's Desk

This is the sixth issue of “ASM Business Review”, the referred research journal of the ASM group of Institutes.

ASM Group of Institutes is committed for qualitative research in academics. And this ASM Business Review is a product of its commitment. Audyogik Shikshan Mandal has been playing a pioneering role in the field of creative education ever since its inception in 1983. With a mission “Excellence in Management Education, Training, Consultancy and Research for success”, ASM is marching towards excellence having more than 65,000+ alumni working at all levels of management in all types of industries.

ASM has seven full fledged academic institutions, has earned affiliation to Savitribai Phule Pune University and Mumbai University, Government of India and Government of Maharashtra. ASM has global vision for education and as a part of our academic commitment for excellence; we are in association Savitribai Phule Pune University, CETYS Universidad Mexico, Indo European Education Foundation, Poland and City University of Seattle USA and also our academic partners for various activities. ASM is spreading wings across the border for continuous upgrading academic excellence.

The ASM Business Review is a medium created by ASM to demonstrate the research skills of authors. It is a strong communication link between industry and academia and aims to work as a catalyst for knowledge sharing between various sections of society. ASM Business Review provides a platform for academic scholars and champions from industry to come together for common cause of developing innovative solutions to various problems faced by society and business entities. The present review is a medium to faculty members, research students and they like to present their research findings before the wider audience. The opportunity to publish their research results would provide ample motivation to this type of scholars. The previous issue of the Review received encouraging response from the academic and corporate community as well. Research articles accepted and printed herein are subject to objective editorial processing and are peer reviewed.

ASM Business Review looks forward as a strong link and partner for society and industry to develop workable solution for day to day problems. We believe our success is a team work of various contributions to this journal. ASM BUSINESS REVIEW is always committed to excel academic research and consultancy.

**Dr. Asha Pachpande**

Managing Trustee and Secretary,  
Audyogik Shikshan Mandal,  
Pune -411019 (India)

---

## **EDITORIAL BOARD**

<b>Editor in Chief</b>	<b>Dr. Asha Pachpande</b> Director, IBMR
<b>Executive Editor</b>	<b>Dr. Santosh Dastane</b> Director Research, ASM group of Institutes
<b>Managing Editor</b>	<b>Dr. (Mrs.) Priti Pachpande</b> Associate Professor, IBMR
<b>Advisor</b>	<b>1) Dr. S. B. Mathur</b> Director General, IIBR  <b>2) Dr. Sudhakar Bokefode</b> Director ,IPS
<b>Publisher</b>	<b>Dr. Sandeep Pachpande</b> Chairman, ASM Group of Institutes
<b>Place of Publication</b>	<b>Audogik Shikshan Mandal</b> CTS No.4695, Opp. Central Mall, Old Pune Mumbai Highway, Pimpri, Pune- 411018 (India) Website:www.asmgroun.edu.in Email : admission@asmedu.org"

---

## CONTENTS

Sr. No.	Title of the Paper	Name of the Author	Page No
1	<b>Value Innovation As Growth Strategy</b>	Prof. J.A. Kulkarni. Dr. Asha Pachpande.	1
2	<b>Corporate Governance-CG A Maligned ‘Whipping Boy’ (A Case Study on CG Issues at Tatas’ &amp; Infosys Based on Secondary Data)</b>	Prof J.A.Kulkarni Dr Sandeep Pachpande	6
3	<b>Reverse Mortgages: Learning From Italy’s Renewed Framework</b>	Margherita Mori	15
4	<b>Process Approach in Organizations – Dimension of Cost Accounting</b>	PhD Eng. Mariusz Kołosowski PhD Eng. Piotr Chwastyk	26
5	<b>The Mexican Institutions in the Creation and Consolidation of SMEs “Las Instituciones Mexicanas En La Creación Y Consolidación De Las Pymes”</b>	José G. Vargas-Hernández, L.E. Sandra Quiroz Mendoza Alma Isela Rodríguez Hernández	37
6	<b>Collaboration in the Mexican Pharmaceutical Industry: an Analysis within the Institutional Framework</b>	José G. Vargas-Hernández,	50

**VALUE INNOVATION AS GROWTH STRATEGY****Prof. J.A. Kulkarni.****Dr. Asha Pachpande.**

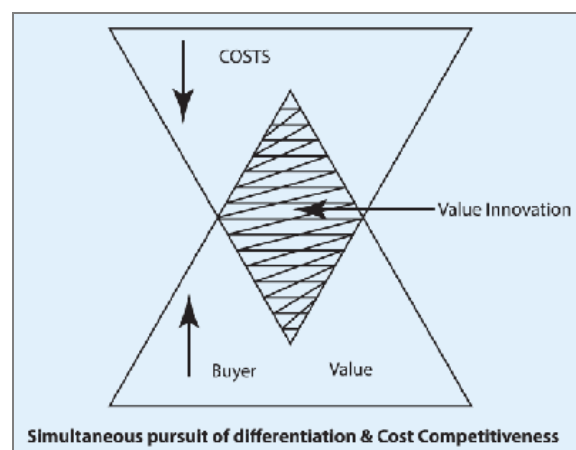
ASM's IBMR Pune

**Synopsis:**

Most companies focus on matching and beating their rivals. As a result, their strategies tend to take on similar dimensions. What ensues is head-to-head competition based largely on incremental improvements in cost, quality, and delivery.

Innovative companies break free from the pack by staking out fundamentally new market space—that is, by creating products or services for which there are no direct competitors. This path to value innovation requires a different competitive mind-set and a systematic way of looking for opportunities. Instead of searching within the conventional boundaries of industry competition, managers can look methodically across those boundaries to find unoccupied territory that represents real value.

Why do some companies achieve sustained high growth in both revenues and profits? The difference in approach was not a matter of managers choosing one analytical tool or planning model over another. The difference was in the companies' fundamental, implicit assumptions about strategy. The less successful companies took a conventional approach: Their strategic thinking was dominated by the idea of staying ahead of the competition. In stark contrast, the high-growth companies paid little attention to matching or beating their rivals. Instead, they sought to make their competitors irrelevant through a strategic logic known as value innovation.

**Conventional Logic Versus Value Innovation**

### Industry Assumptions.

Many companies take their industries' conditions as given and set strategy accordingly. Value innovators don't. No matter how the rest of the industry is faring, value innovators look for blockbuster ideas and quantum leaps in value.

Conventional logic leads companies to compete at the margin for incremental share. The logic of value innovation starts with an ambition to dominate the market by offering a tremendous leap in value. They monitor competitors but do not use them as benchmarks. not interested in whether they are better than the competition. Because value innovators don't focus on competing, they can distinguish the factors that deliver superior value from all the factors the industry competes on. They do not expend their resources to offer certain product and service features just because that is what their rivals are doing. even though value innovators do not set out to build advantages over the competition, they often end up achieving the greatest competitive advantages.

Many companies seek growth through retaining and expanding their customer bases. This often leads to finer segmentation and greater customization of offerings to meet specialized needs. Value innovation follows a different logic. Instead of focusing on the differences between customers, value innovators build on the powerful commonalities in the features that customers value. focus on what unites customers. Customers' differences often prevent one from seeing what's most important." Value innovators believe that most people will put their differences aside if they are offered a considerable increase in value.

Many companies view business opportunities through the lens of their existing assets and capabilities. They ask, given what we have, what is the best we can do? In contrast, value innovators ask, What if we start a new? They take a clean slate approach."

This is not to say that value innovators never leverage their existing assets and capabilities; they often do. But, more important, they assess business opportunities without being biased or constrained by where they are at a given moment. For that reason, value innovators not only have more insight into where value for buyers resides—and how it is changing—but also are much more likely to act on that insight.

Conventional competition takes place within clearly established boundaries defined by the products and services the industry traditionally offers. Value innovators often cross those boundaries. They think in terms of the total solution buyers seek, and they try to overcome the chief compromises their industry forces customers to make—do."

### Creating a New Value Curve

How does the logic of value innovation translate into a company's offerings in the marketplace?.

#### 4.questions:

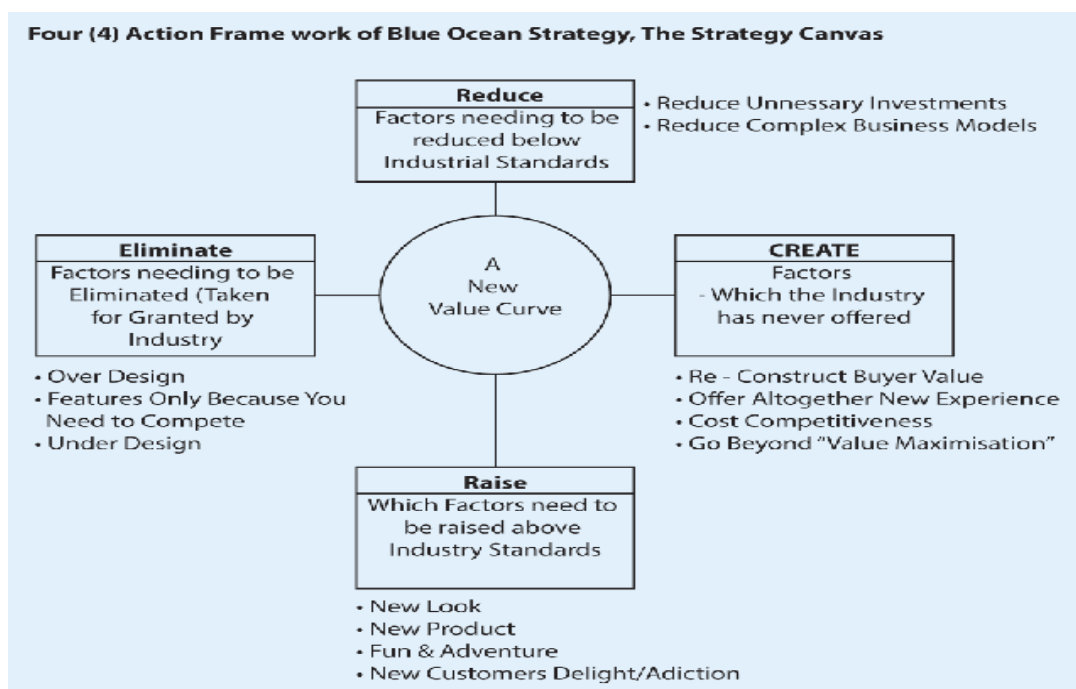
- Which of the factors that our industry takes for granted should be eliminated?
- Which factors should be reduced well below the industry's standard?
- Which factors should be raised well above the industry's standard?
- Which factors should be created that the industry has never offered

The first question forces managers to consider whether the factors that companies compete on actually deliver value to consumers. Often those factors are taken for granted, even though they have no value or even detract from value.

The second question forces managers to determine whether products and services have been overdesigned in the race to match and beat the competition.

The third question pushes managers to uncover and eliminate the compromises their industry forces customers to make.

The fourth question helps managers break out of the industry's established boundaries to discover entirely new sources of value for consumers.



## VALUE INNOVATION

### The Trap of Competition:

What happens once a company has created a new value curve? Sooner or later, the competition tries to imitate it. In many industries, value innovators do not face a credible challenge for many years, but in others, rivals appear more quickly.



Eventually, however, a value innovator will find its growth and profits under attack. Too often, in an attempt to defend its hard-earned customer base, the company launches offenses. But the imitators often persist, and the value innovator—despite its best intentions—may end up in a race to beat the competition. Obsessed with hanging on to market share, the company may fall into the trap of conventional strategic logic. If the company doesn't find its way out of the trap, the basic shape of its value curve will begin to look just like those of its rivals.

Monitoring value curves may also keep a company from pursuing innovation when there is still a huge profit stream to be collected from its current offering. In some rapidly emerging industries, companies must innovate frequently. In many other industries, companies can harvest their successes for a long time; a radically different value curve is difficult for incumbents to imitate, and the volume advantages that come with value innovation make imitation costly. Value innovation is about offering unprecedented value, not technology or competencies. It is not the same as being first to market.

When a company's value curve is fundamentally different from that of the rest of the industry—and the difference is valued by most customers—managers should resist innovation. Instead, companies should embark on geographic expansion and operational improvements to achieve maximum economies of scale and market coverage..

### **The Three Platforms**

The companies that were most successful at repeating value innovation were those that took advantage of all three platforms on which value innovation can take place: product, service, and delivery. The precise meaning of the three platforms varies across industries and companies, but in general, the product platform is the physical product; the service platform is support such as maintenance, customer service, warranties, and training for distributors and retailers; and the delivery platform includes logistics and the channel used to deliver the product to customers.

Too often, managers trying to create a value innovation focus on the product platform and ignore the other two elements. Over time, that approach is not likely to yield many opportunities for repeated value innovation. As customers and technologies change, each platform presents new possibilities.

**Driving a Company for High Growth**

Having reframed the company's strategic logic around value innovation, senior executives must ask the four questions that translate that thinking into a new value curve: Which of the factors that our industry takes for granted should be eliminated? Which factors should be reduced well below the industry's standard? Which should be raised well above the industry's standard? Which factors should be created that the industry has never offered? Asking the full set of questions—rather than singling out one or two—is necessary for profitable growth. Value innovation is the simultaneous pursuit of radically superior value for buyers and lower costs for companies. For managers of diversified corporations, the logic of value innovation can be used to identify the most promising possibilities for growth across a portfolio of businesses.

**References:**

- 1) Blue Ocean Strategy by Dr Kim & Mauborgne
- 2) Computing for future by Gary Hamel & CK Prahalad
- 3) Sustainability Management By Tom Theis & Jonathan Tomkin-Rice University

---

## **CORPORATE GOVERNANCE-CG**

### **A MALIGNED ‘WHIPPING BOY’**

(A Case Study on CG Issues at Tatas’ & Infosys based on secondary data)

**Prof J.A.Kulkarni**

**Dr Sandeep Pachpande**

ASM Group of Institutes. Pune

---

#### **Synopsis:**

When transfer of managerial authority is not accompanied by ownership change, the predecessor continues to call the shots. In all the excitement generated by the recent events in the Tata group, where the chairman was replaced by his predecessor —albeit as an interim measure — the real issue has gone into hiding.

A substantial focus of the discussions and comments from the press, observers and experts has been on procedures and personalities. Whether the incumbent chairman was given adequate notice about his removal and whether he was given a chance to argue his case are no doubt relevant questions to assess the fairness of the decision. But these questions speak to the procedural issues surrounding corporate governance.

The other widely discussed question is about the differing perspectives and the positions taken by the incumbent and the predecessor. But if one were to seriously search for the root cause of this issue, it is possible to recognize the elephant in the room —ineffective succession planning and implementation. Succession planning is one issue which not many business organizations have handled well. While it can be quite challenging and tricky in family owned and managed companies, we also have examples of other companies promoted by professionals struggling in this area. What comes in the way of highly reputed and sensible business leaders delivering on this inevitable but crucial mandate given to them in their role as business leaders and owners?

#### **Ownership transfer:**

Let us take the case when the incumbent leader represents ownership interests and also functions as the executive head. When this leader has to put in place a successor, and plans for it, organizational succession always assumes prominence, and ownership succession recedes into the background. This kind of incomplete succession planning

has serious implications for the effectiveness of the succession process as a whole. As a principal owner, the predecessor not only has the freedom to choose the timing of the succession event, but also a say in who the successor would be.

Once a successor is in place, the predecessor relinquishes the management role, but still gets to play the ownership role – either from close quarters as a member of the board or from a distance as the principal shareholder acting through other informal forums or through nominees. In effect, they continue to be in a position to pass judgment on the actions of the successor in one form or other.

Such an arrangement often makes life difficult for both the predecessor and the successor. Being continually exposed to the ongoing affairs of the organization which he or she no longer has the mandate to lead, the predecessor is emotionally challenged to distinguish between decisions that are a response to changing business environment, and those that imply a possible dilution of legacy – of the group or family or the individual. Or, the moves may be seen as a neglect of the legitimate interests of the principal shareholders.

### **The Inside Story:**

'The casino business is built on the principle that "**the house always wins**". And so it is in most fights between an individual and an institution, especially one as formidable as the House of Tata. Mistry will find it difficult to marshal the kind of resources that the Tata Group has at its command, be it in terms of money or people or influence. But Mistry had two weapons in his armory that neither Russy Mody nor Kerkar had: (a) his hugely wealthy family owns 18.5% in Tata Sons, which while a fraction of the 66% that the Ratan Tata-headed Tata Trusts control, is in itself not insignificant; and (b) Mody and Kerkar's writ didn't run beyond steel and hotels whereas Mistry remains chairman of every major group company — from TCS, Tata Steel and Tata Motors, to Indian Hotels, Tata Power and Tata Chemicals — and a director of several more, which unlike Tata Sons, are listed on stock exchanges and have large institutional and public shareholding. In the years that followed Ratan Tata's ascension, Tata Sons moved to fortify its group companies against the threat of hostile bids by systematically shoring up its holdings in them from single digits to the high-twenties and beyond — but barring a few, most notably TCS (which it took public in 2014 and in which it retains about 74%), it doesn't have a majority; for instance, 28% in Tata Motors, 30.4% in Tata Steel, 26.5% in Indian Hotels

**They Also Make Mistakes :**

Tatas not only made an unfair call in sacking Cyrus Mistry but also erred earlier by making him leader OK for Ratan, Throughout the 1990s, Ratan Tata, then Tata group chairman, spent much of his time consolidating and asserting his hold over the group and chalking out a strategy group and chalking out a strategy for major group companies. Tata Steel, Tata Motors and Indian Hotels were among the biggest companies (unlisted TCS was just a division of Tata Sons), but were floundering amid dramatic changes in the postliberalisation landscape and Asian financial crisis of 1996-97.

Tata's life was made difficult by the fact he and the main holding company , Tata Sons, did not have full control over all group companies. The satraps, long-reigning leaders, had more or less complete sway over the functioning of Tata Chemicals, Indian Hotels and Tata Steel. To his credit, Tata did not flinch from doing the difficult thing.He took on all the satraps starting with Russi Mody in 1993, and by end of the decade, had asserted full control. The group restructuring took much longer, though, and it was only in the middle of the last decade that some sort of financial and operational stability returned to the group's top companies.

Nobody knows all this more than Ratan Tata. You need time to turn around a massive, complex business, and there could well be pitfalls and stumbles along the way , especially if the macro environment is weak or hostile. It is also unfair to Mistry on many counts. He faced a massive challenge in turning around the fortunes of group companies thanks to the debt-fuelled overseas acquisition binge undertaken when Tata was at the helm.

Domestic and global economic woes worsened by the commodity price crash also did not help. In a way , Mistry faced almost the same problems as Tata did in the 1990s.But while Mistry got only four years to turn around things, Tata got almost 21years.Ratan Tata's performance as chairman was questioned several times during his tenure. In the late 1990s, when Indica was facing teething problems and Tata Motors' financial problems were mounting; in the early 2000s, when Tata Steel suffered a loss of ` . 500 crore. But nobody called for his resignation or firing.

The tepid response to Nano should have been good enough reason for Tata to have lost his job. The Nano is a clear-cut business failure and CEOs of major global companies would have lost their jobs under such circumstances. Tata should be glad that he got away lightly .V R Mehta of Sir Dorabji Tata Trust has been telling the media that the

poor performance of Tata group companies and cut in dividend were issues of concern. Somebody should ask Mehta whether he expressed similar concerns when Tata group companies were spending share holder money recklessly on foreign trophy assets.

As a senior executive of the largest shareholder of Tata Sons, did Mehta show any concern about how shareholder money is being spent? Or is the concern dependent on the identity of the CEO chairman at that time? The wealth destruction caused by overseas acquisitions has been well documented. Apparently Ratan Tata decided to enter the aviation sector on his own without taking the board into confidence. How can he decide on behalf of Tata Sons? He was not the chairman of the board at the time when Tata decided to join hands with Air Asia for an airline.

How can the largest shareholder abuse his authority and force the Tata Sons board into a new business, and that too over the objections of the chairman? Where was Tata's commitment to discipline in capital allocation, especially at a time when the group was struggling with poor returns from many investments?

The current controversy may fade in the coming months as Mistry accepts the inevitable and a new chairman is appointed. But questions raised by Mistry and others on group performance and returns are going to be as important as ever -and probably tougher to handle. Ironically, the only way to address them would be to break the legacy created by Tata himself.

### **Wrong Man For Starters :**

Cyrus Mistry had hurry attached to him. He walked into the top job in a rush that surprised everyone and his departure was even more desperate. He's respond even more desperate. He's responded to his ouster dashing off a letter alleging serious wrongdoings at the group. Ironically , the letter reinforces one thing: the Tata group needed a wartime commander and, instead, in Mistry , it was handed a peacetime hero. When Mistry was selected to replace Ratan Tata, the Tata group was on a roll. In less than six years, it had collected 22 companies around the world. Its string of acquisitions catapulted it from a vaulted Indian conglomerate to a zealous global player. Tucked in the list of trophies was Tetley Tea, Jaguar Land Rover (JLR) and Corus Steel.

By 2011, when Mistry was chosen, the Tatas were a hodgepodge of home-grown and international companies. It had turned around JLR, causing previous owner Ford to blush. TCS was the reigning Indian IT services firm, albeit facing strong headwinds. At Corus, though, falling steel prices and slipping demand had already dented prospects. Still, none of this would have been a surprise to Mistry who had by then spent a few

years as a director at Tata Sons. By dint of the large stake his family held in Tata Trusts, Mistry would have been only too well versed with the group's fault lines.

So, at 43, when he chose to wear the Tata crown, he knew what he was inheriting. He knew the 2008 financial crisis was still unraveling. Businesses everywhere were preparing for war against slumping demand, crumbling economies and emaciated spending. The whole world was recalibrating, and preparing for what was arguably the worst economic crisis since the Great Depression. To his credit, and that of the then spin machine, he was feted with building up his family construction firm Shapoorji Pallonji, growing revenues many times over. That's no mean task. And yet, it's one that rode on the coattails of the real estate boom in India and elsewhere since the late 1990s. Trouble is, Mistry was celebrated for having all the qualities of a peacetime leader. He was cut right for an environment in which a booming economy would have helped expand market share. For a certain kind of business, he had the perfect skills. But in a global conglomerate with a dizzying number of businesses as diverse as salt and jewellery, Mistry may have been an awkward captain.

What the Tata group needed was a leader who could take any existential threat head on, and turn it around. A kind of Steve Jobs of conglomerates. Or, as Andy Grove would say, a paranoid who could survive. The Mistry we saw shied away from the most audacious purchase Tata had made: Corus. At the sign of a long march, he blinked, forgetting the banner at the Tata Steel factory: Will to Work, Will to Win. To be fair, Mistry's sympathizers may argue that he was being pragmatic and cutting losses in what was an overpriced, overambitious acquisition. Sure. But that's a peacetime trait.

The Tata group of the future faces every imaginable threat to its existence in each of its big businesses. That risk will come from robotics, additive manufacturing and artificial intelligence. It will rob the group of all the pillars it comfortably rests on. The technology shift could pillage the advantages of scale, labor, deep pockets, pedigree and a lot more. In the new world order, Tata's biggest cash cow, TCS, may end up fighting small innovative labs that specialize in deep thinking, making its current business model outmoded.

Tata Motors may have to reengineer its strategy as driverless cars become fashionable. And robotics may make it cheaper to produce steel in Europe than in India. The leader of tomorrow will have no case studies to lean on and few counselors to rely on. And the carnage will be far deeper than disruption caused by a cyclical down in commodities. Worse, the shift in the business landscape with the exponential leap in technologies will

be mercilessly swift. The enemy is pretty much at the gates. Anyone who leads the Tatas has to be a futurist. Viewed thus, it's hard to see what visionary qualities Mistry brought to the job. His family's large stake can't be the reason for company shareowners to have a leader who can't hold out.

#### **Infosys' corporate Level Battle:**

'The issue is not with Vishal Sikka but with the quality of governance at the board. It has slipped' said N R Narayana Murthy, co-founder and first chairman of Infosys, who along with his family, is the single largest shareholder (3.44%) in the company. The founders of Infosys were at odds with the company's board and have red-flagged governance concerns repeatedly. The main issues highlighted by Infosys founder Mr N Narayan Murthy were

- 1) When David Kennedy (former legal and compliance head who quit recently) was appointed, it appears nobody went into details and asked, is it normal at Infosys to accept 12 months as severance pay, when the norm for all others is 3 months? It is the work of the chair of the remunerations committee to do that."
- 2) When the former CFO Rajiv Bansal left, should he have got 30 months' severance pay? That is 10 times the norm at Infosys. What is the real reason behind such an extraordinary payment?" asked Murthy. Infosys's single largest shareholder, N R Narayana Murthy was concerned at the impact of hefty payouts for some senior executives on employee morale.
- 3) "What kind of signal does this send to employees? So many employees at senior, middle-level and junior levels at Infosys are unhappy. have received over 1,800 emails from various employees expressing their unhappiness at this situation. The common question they have all asked me is, if it is fair that they got only 80% of the variable part of compensation while somebody who has left the company is given 100% variable for the next two years after leaving.
- 4) Why are the Investigations done of few major transactions suspected to be dubious are not made public for the other stake holders to understand the real picture.?

These are a subset of the governance issues," he said..Murthy said Infosys needs to address such issues which have brought down the morale of employees. He admitted that he was distressed at what's happening at Infosys. "So many of us ex-Infoscians who have spent decades of our lives building this institution with values and a culture of fairness feel bad," he added.



### When Performance Becomes More Important Than Values:

Tata Sons Vs Cyrus Mistry conflict based on the information that has been covered so far, it is clear that there came a point where the core values of the company were pushed aside in favor of performance. The emotional disconnection with the values of a company starts at the board level and trickles down to management and lower level employees – this is likely what led to the Conflict & Trust deficit between the Tata Trust & Mr. Cyrus Mistry the Ex-Chairman of Tata Sons

Emotional connection and values vs. the fear for performance. As a board member with a fiduciary responsibility to shareholders, it is easy to say performance is the most important part of your role, but the truth is that performance should be closely tied to emotional connection and values. The emotional connection serves as the foundation for emotional safety. It is basically what gives board members safety when they have to work together. Values are what keeps the board on track.



The emotional connection to each other and the company allows the brain to stay calm and remain connected even in times of great stress. When we don't pay attention to the emotional connection, we get disconnected and slowly move away from values. Our brains lose the safety of the group. Decisions become inconsistent, and panic sets in to protect self-interest becomes prevalent in the boardroom. All of this leads to poor performance. But when the brain is emotionally connected, we see better collaboration, more creativity, and better ideas which of course leads to better overall performance.

The way the board treats the emotional connection guides how the executive team approaches the values which moves down to management and all the way down to

front line employees. When the board is disconnected, it loses sight of the mission, vision, and values, so does everyone else.

Emotional disconnection is often driven by fear. There are certain basic fears that come up in all relationships – fear of abandonment and fear of rejection. If we look at fear that led Wells Fargo to the decision of committing fraud, there were four different relationships that were impacted by fear:

Wanting to stay connected by pleasing everyone is a natural part of being human. The fear of not meeting expectations often what get CEOs in trouble because they don't know how to address their emotion with the board and the board does not know how to help them deal with that fear. Thus, CEOs obsession for performance turns into a tunnel vision – ignoring the values and emotional disconnection with the board. This laser like focus almost always ends poorly for the company.

In the case of the Tatas & Mistry, performance became the focal point. With terms like “Managing through Shambles”, it is easy to see how focus got turned from their values which include

Managing by Trust” to “what’s right for me” performance.

The tragedy in all of this is that performance obsession happens to so many boards, and it is so hard for them to see it as it is happening. So how can you stop this from happening on your board? Or better yet, how can you tell if this is currently happening on your board?

It's simple – bring it back to emotional connection. Ask your fellow board members if they can share their concerns openly and honestly on the board. Have a candid conversation about if and how you can create safety so that you can refer to values when making decisions. Ask your management if they know the values – chances are if they are not familiar with the values, nether are your front line employees.

If it is apparent that there is a disconnect between the people and the values, take some time to review. Do the values need to be changed? If you are not using the values, how are you making decisions? The most important part of this conversation is to reconnect the board emotionally with the company.

Remind everyone why they joined the board in the first place – they care about the company and want it to succeed. Implementing values and speaking about them regularly is one of the best ways to maintain that emotional connection and prevent performance pressures from taking over.

What we can really learn from the Tatas' Conflict is that even if you have a strong and competent board, it is all easily lost when fear and disconnection are introduced in to the boardroom. Competence turns into incompetence and things that should be obvious are ignored or pushed aside as directors, CEOs, managers, and frontline employees stop focusing on the company's values and start doing everything they can to protect themselves. Learning, understanding, and knowing how to work with emotion becomes essential in developing a culture where people feel safe and connected to protect the company together.

**Conclusion:**

- 1) The Issues in both Tatas and Infosys are prominent examples of the lack of amalgamation and mutual enrichment of issues based on performance and corporate Core Values which in true sense is the inadequacy of the 'Cultural fit' that is supposed to determine the longevity, success and harmony that is so essential for business sustainability in Global organizations
- 2) Whereas it is important for the board to moderate and manage differences between the executive and the governing body it has also to respect the value gaps which exist on account of situations based on technology and globalization dilemmas which at times stretch the limitations on the executives to permit short term slips as manageable issues which get understood and appreciated as business risks as also strategic moves rather than blown up rebellion against established core values and norms
- 3) The real issue at stake are the brand image of the organization and the social and economic perceptions of an organization. At times such incidences thoroughly shake out the confidence from its stake holders including key employees who are the back bone of strategic moves of the company.

**References:**

- 1) Daily Newspapers: Economic Times, Times of India, Business Line, The MINT, Business Standard wef 01-11-2016 till 30-06-2017
- 2) 2 Business Magazines: The Business India ,India Today, Business Week

---

## REVERSE MORTGAGES: LEARNING FROM ITALY'S RENEWED FRAMEWORK

**Margherita Mori**

Full Professor in Financial Markets and Institutions

Department of Industrial and Information Engineering, and of Economics

Economy Area - University of L'Aquila

Via Giuseppe Mezzanotte – Località Acquasanta, 67100 L'Aquila, Italy

Telephone number +39 0862 434874 – Mobile +39 3471041062

Email id: margherita.mori@univaq.it

---

**Abstract:**

*The objective of this paper is to investigate the role that reverse mortgages can play in meeting widely shared challenges, such as the combination of an aging population and low birth rates. While this mix seems detrimental to the sustainability of today's pension schemes in many countries, these loans may be usefully resorted to as lifetime income planning tools.*

*In Italy rules were introduced in 2015 that promise to favor a more massive adoption of the so-called prestito vitalizio ipotecario; this renewed framework may induce 60+ homeowners to reconsider their residential property, not only to satisfy their housing needs, but also to achieve higher standards of living. Therefore, more attention should be paid to total wealth management rather than focusing on the trade-off between financial and real assets.*

*The analysis is based upon reverse mortgage products that have been recently launched by major banks within this evolutionary scenario: Banca Popolare di Sondrio, Deutsche Bank S.p.A., Intesa Sanpaolo S.p.A., Monte dei Paschi di Siena S.p.A. and UniCredit S.p.A.. Conclusions can be useful elsewhere, as they imply that decisions on managing assets – including housing equity – should be supported by adequate consumer financial protection, as well as by qualified and independent counseling.*

**Keywords:** *Consumer financial protection, Housing equity, Reverse mortgages, Wealth management*

---

**Introduction:**

This paper takes inspiration from Italy's recent legislation on reverse mortgages and aims at investigating their strategic role in financial management, particularly as an option to solve deep-rooted economic problems suffered by people in the later stages of their life cycle. Despite some criticism and limited adoption so far, this type of loan may be resorted to as a lifetime income planning tool that allows to bypass the traditional trade-off between financial and real assets; however, potential users tend to conceive the financial instrument at issue just as a remedy against poor consumption and are mostly unable to thoroughly understand the underlying technicalities, as well as the implied costs.

Within the Italian financial system, an evolutionary wave has been stimulated by Law n. 44 that was enacted on April 2, 2015 in order to regulate the so-called *prestito vitalizio ipotecario*; operating rules were introduced by the Ministry of Economic Development and can be traced back to Decree n. 226 of December 22, 2015. Therefore, Law 44/2015 seems the most appropriate starting point of this paper that first of all aims at providing a few comments on the features of this financial facility, as it has been designed by Italy's legislator.

The next step is to analyze some reverse mortgage products that have been recently launched in this country by major banks: "Prestito Ipotecario Vitalizio"<sup>1</sup>, "PatrimonioCasa"<sup>2</sup>, "PerTe Prestito Vitalizio"<sup>3</sup>, "Prestisenior"<sup>4</sup> and "Valore Casa"<sup>5</sup>, offered by Banca Popolare di Sondrio, Deutsche Bank S.p.A., Intesa Sanpaolo S.p.A., Monte dei Paschi di Siena S.p.A. and UniCredit S.p.A. respectively, though it should also be accounted for Imprebanca S.p.A. (a relatively new entry) and its "Prestito Ipotecario Vitalizio"<sup>6</sup>. Conclusions encompass policy issues, that emphasize the need to foster improved financial education and that, as such, go beyond the boundaries of the country under investigation.

---

<sup>1</sup> Banca Popolare di Sondrio, Prestito Ipotecario Vitalizio, Foglio informativo, November 30, 2017.

<sup>2</sup> Deutsche Bank S.p.A., Foglio informativo relativo al Contratto di Prestito Vitalizio Ipotecario, June 13, 2011.

<sup>3</sup> Intesa Sanpaolo S.p.A., Foglio informativo n. 153/013. Finanziamenti. PerTe Prestito Vitalizio, June 13, 2017.

<sup>4</sup> Monte dei Paschi di Siena S.p.A., Foglio informativo 1.1.7- Prestito vitalizio ipotecario Prestisenior, April 14, 2016.

<sup>5</sup> UniCredit S.p.A., Foglio informativo n° MI378 Prestito ipotecario vitalizio "Valore Casa", September 5, 2017.

<sup>6</sup> Imprebanca S.p.A., Foglio informativo n. 53, Prestito Ipotecario Vitalizio, November 7, 2017.

**Evidence from Recent Literature:**

Previous studies allow to state that the trend towards increasing globalization has made traditional keys of classification obsolete, including the trade-off between financial and real assets<sup>7</sup>: though it has been historically accepted as one of the pillars that portfolio management is based on, the attractiveness of this clear-cut distinction cannot resist much longer; doubts on its appeal have been fueled by the huge quantity of financial products that have been structured over time and that are backed by real assets, such as housing equity. Therefore, total wealth management should be focused on, rather than paying as much attention as in the past to portfolios consisting of securities alone, and reverse mortgages are likely to gain momentum, not only in Italy.

Attempts have been made at explaining why – right or wrong – Italian households do not like these loans: the main potential beneficiaries have been identified with women, elderly and “house rich-cash poor” individuals who often lack adequate financial literacy so as to express a genuine interest in these financial products<sup>8</sup>; yet, they can be even adopted within an estate planning framework, as a part of personal finance decisions. Higher interest is predictable based upon risk aversion and negative expectations on aging well, since these loans may alleviate poverty that affects many homeowners in the last stages of their life cycle and hence may contribute to meet the global challenge that leads to better serve the underbanked population.

For instance, fears about not being able to maintain an acceptable standard of living after retiring may act as a stimulus to make recourse to a reverse mortgage, as an alternative to housing wealth decumulation; supporting arguments stem from the finding that asset depletion in the last part of one’s life cycle may turn into “inefficient dissaving”<sup>9</sup>. Along this pathway, special consideration should be devoted to “the need for understanding how to effectively reach and include all financial consumers”, which

---

<sup>7</sup> M. Mori, ‘Financial versus Real Assets? No, Thanks! Focusing on Reverse Mortgages’, *Journal of Global Economics, Management and Business Research*, vol. 7, n. 4, 2016, pp. 289-294.

<sup>8</sup> E. Fornero, M. Rossi and M. C. Urzì Brancati, ‘Explaining Why, Right or Wrong, (Italian) Households do not Like Reverse Mortgages’, *Journal of Pension Economics & Finance*, vol. 15, n. 2, 2016, pp. 180-202.

<sup>9</sup> M. Borella and M. Rossi M., *Asset Accumulation and Decumulation over the Life Cycle. The Role of Financial Literacy*, Le Tilburg, Network for Studies on Pensions, Aging and Retirement, 2014.

displays “practical relevance not only for policy makers and financial sector supervisors and regulators, but also for the financial industry”<sup>10</sup>.

### **The So-called *Prestito Vitalizio Ipotecario***

A case in point has to do with reverse mortgages, due to the importance given by policymakers to the support that most investors need in order to make adequate decisions, as well as to the implications of home equity release products for consumption smoothing. Actually, the still limited set of these financial instruments is included among the reasons why older Italians (and Europeans in more general terms) have to cope with financial hardship; further causes stem from the difficulties that prevent borrowers (and/or their heirs) from fully grasping the technicalities of reverse mortgages and fairly assessing their implied costs, including a non-refundable application fee that some lenders tend to charge (for instance, in the United States).

Despite the shortcomings that adversely impact this scenario, changes have been noticeable in Italy since the introduction of Law 44/2015: it was enacted in order to amend the legal framework that started to be generated by Law n. 248 of December 2, 2005 and that had left discouraging foggy areas; be it enough to mention that just a few lines were inserted while converting Law Decree n. 203 of September 30, 2015 into Law 248/2005. As a result, its article 11-*quaterdecies* created this financial product<sup>11</sup>, that was forged as a medium- to long-term mortgage loan granted to 65+ homeowners<sup>12</sup> by financial institutions and secured by their residential property.

According to the definition that was then adopted, interest rates and expenses would be accounted for every year but the amount due, including the amount borrowed, would be paid at the end of the agreed upon period, without any explicit link to the borrower’s death. To complete the picture, useful insights can be gained by focusing on the above mentioned Decree 226/2015 that has been in force since March 2, 2016: the text of this Decree was designed to favor the recourse to these loans<sup>13</sup>, provided that proposals had been collected from the Italian Banking Association and consumer associations, and it can be clearly perceived the aim of ensuring transparent conditions on behalf of the borrowers; furthermore, “frequently asked questions” – together with their pertaining

---

10 C. Boggio et al., *Seven Ways to Knit Your Portfolio: Is Investor Communication Neutral?* Moncalieri (TO), Center for Research on Pensions and Welfare Policies, 2014.

11 See paragraph 12, in force since December 3, 2005.

12 Minimum age was reduced to 60 by Law 44/2015.

13 G. O. Mannella and G. C. Platania, *Il prestito vitalizio ipotecario*, Assago (MI), Ipsoa, 2015.

answers – have been made available online by the Ministry of Economic Development since October 4, 2016<sup>14</sup> so as to minimize – and possibly fill – any information gap.

### **Towards Increased Transparency:**

The better shaped legal framework seems encouraging, because it should promote more transparent conditions in the market segment under scrutiny. To this end, valuable support also comes from the Directive 2014/17/EU of the European Parliament and of the Council of February 4, 2014 on credit agreements for consumers relating to residential immovable property, based upon “a process of identifying and assessing the impact of barriers to the internal market for credit agreements” that refer to this kind of property: the openly declared goal was “to ensure that consumers entering into credit agreements relating to immovable property benefit from a high level of protection”<sup>15</sup>; in other words, it should be made sure that “consumers looking for such agreements are able to do so confident in the knowledge that the institutions they interact with act in a professional and responsible manner”<sup>16</sup>.

As a matter of fact, the global crisis that started in 2007 allow to state that “irresponsible behavior by market participants can undermine the foundations of the financial system, leading to a lack of confidence among all parties, in particular consumers, and potentially severe social and economic consequences”<sup>17</sup>. The underlying rationale has to do with the vital need to develop a more transparent and efficient credit market within the European Union: the substantial differences in the laws of the various Member States with regard to the conduct of business are deemed to “create obstacles that restrict the level of cross-border activity on the supply and demand sides, thus reducing competition and choice in the market, raising the cost of lending for providers and even preventing them from doing business”<sup>18</sup>.

Beyond borders, it is interesting to survey how these instruments are structured and marketed in other countries, particularly in the United States, where reverse mortgages have been reportedly introduced by Deering Savings & Loan Association in Portland

---

14 Ministry of Economic Development, *Prestito ipotecario vitalizio, ecco le risposte alle domande più comuni*, 2016,

<http://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/2035272-prestito-ipotecario-vitalizio-ecco-le-rispsote-alle-domande-piu-comuni> (accessed December 19, 2017).

15 Preliminary statements, n. 15.

16 Preliminary statements, n. 5.

17 Preliminary statements, n. 3.

18 Preliminary statements, n. 2.



(Maine) in 1961<sup>19</sup> and a sign of the success achieved by the loans under scrutiny is that mortgages insured by the Federal Housing Administration are offered to credit challenged seniors. In order to reach the best results, the web is a source of interesting ideas and a priceless contribution to disseminate them is provided by *ad hoc* websites, such as <http://prestivotitalizio.info/>, advertised as “Italy’s first website specializing in *prestiti vitalizi ipotecari*”: needless to say, channeling most relevant information to the target market is a tough – though rewarding – task, which should be undertaken without underscoring investor protection policies, as well as financial inclusion, literacy and counseling.

### Underlying Issues:

Despite the efforts undertaken, it is too early to predict whether this type of loans can become a well-established instrument in Italy<sup>20</sup>; anyway, the better shaped legal framework seems encouraging, in the light of the features of the *prestito vitalizio ipotecario*. In a few, simple words, it is a home equity release product that may allow 60+ homeowners to rely on their housing equity in order to be granted a medium- or long-term loan by banks or other types of financial institutions.

This loan is secured by the property itself and cash can be provided to homeowners till when they pass away, so that they are enabled to consume (part of) their housing equity without disrupting their housing arrangements; it is not a case that these instruments are also known as home equity conversion loans in the United States. However, interests and expenses are accounted for every year and should be paid to the lender no later than one year after the borrower dies, together with the amount of the loan to be reimbursed.

Should this obligation remain unfulfilled, the property it is backed by can be sold by the bank at its market value, after having it professionally assessed, and what eventually remains after satisfying the lender’s rights is transferred to the borrower’s heirs. Therefore, they are allowed to choose among three options: a) disbursing personal funds in order to pay the full amount due to the lender right after the borrower’s death and consequently inheriting his/her real asset that the reverse

---

19 It seems that the first loan of this type was granted to Nellie Young, “a recent widow struggling to make ends meet”. See R. J. Arceri, Reverse Mortgage History, Five Star Reverse Funding, <http://www.russcares.com/reverse-mortgage-history.html> (accessed December 19, 2017).

20 A. Baldini and M. Causi, ‘Il nuovo prestito vitalizio ipotecario: si svilupperà anche in Italia un mercato di strumenti finanziari per gli anziani?’, *Bancaria*, vol. 73, n. 7-8, 2016, pp. 68-72.

mortgage was based on; b) making recourse to a loan – which may be possibly granted by the same bank – in order to get the money to do so, if cash is not available either in part or totally; c) leaving the property with the lender, if its rights cannot be safeguarded by borrowing the requested amount of money.

### **Exploring New Opportunities:**

Whatever choice is made, heirs cannot be asked for any extra payment, in case the sale price of the property at issue falls below the lender's credit, and are conversely entitled to receive what is left after the amount due is paid off. Similar rules apply in case the borrower decides to sell the property that a mortgage loan is secured by or anyhow acts so as to significantly reduce the value of this property; it is also provided for different arrangements, that may be agreed upon at the time of making a reverse mortgage commitment and that may even allow the borrower to opt for a gradual payment of interest and expenses before – and eventually till – her/his death.

Within this framework, Italy's major banks have been recently involved in widening their array of services by providing some types of *prestito vitalizio ipotecario*. Overall, this product has undergone a remarkable and rapid differentiation process, as it can be said by taking a look at the details that have been disclosed by the institutions involved; by contrast, participants in the target market could hardly grasp by themselves the full range of technicalities to cope with.

For example, Intesa Sanpaolo S.p.A. does not only requests that the decision to sign a reverse mortgage agreement is shared within the borrower's family, but also unveils some requirements that a residential property must satisfy for the homeowner to be considered eligible as a borrower: condos, villas and independent homes can qualify, though they must be located in cities that are inhabited by more than 30,000 people; these features are likely to positively affect the marketability of the home that the contract would be based on. The legal schemes adopted by other banks do not include similar clauses.

### **Clauses and choices:**

An overview of the contracts that may be entered in by potential borrowers reveals that choosing among them is all but easy. Even age can be a crucial factor: UniCredit S.p.A. shows a clear attitude towards people between 65 and 85; Deutsche Bank S.p.A. requires its counterparts to be at least 65 years old and a maximum age of 95 is

assumed by the technical tables that refer to the limits to the amount of each loan; Intesa Sanpaolo S.p.A. and Monte dei Paschi di Siena S.p.A. can be deemed to sell their reverse mortgages to people between 60 and 90; potential borrowers must be at least 65 years old in the case of Banca Popolare di Sondrio.

Turning to interest payments due, the reverse mortgages under scrutiny are mostly fixed rate loans. Only UniCredit S.p.A. declares that a variable rate may be chosen and makes the potential borrower aware of the implied interest rate risk (i.e. an increase of the relevant parameter beyond expectations); by contrast, the four other banks state that borrowers could not eventually benefit from a fall in market interest rates, as the loans marketed by these institutions are fixed rate ones.

Furthermore, different approaches surface as far as payments due: UniCredit S.p.A. requests that interests are paid on a monthly base, if the variable rate is applicable, while Deutsche Bank S.p.A. states that interests are compounded year by year and paid at the end of the loan together with its reimbursement and related expenses. The remaining three banks leave borrowers free to choose between these options upon signing the contracts and payments can be made either monthly (Intesa Sanpaolo S.p.A., in terms of interest rates) or every year (Monte dei Paschi di Siena S.p.A. and Banca Popolare di Sondrio, in terms of interests and expenses), thus allowing the amount of the loan to be higher *ceteris paribus*.

### **Policy Implications:**

To make a long story short, these loans look like the opposite of conventional mortgages: in any of the contracts under investigation, the lender pays the homeowner rather than the latter making payments to the former. This is not the answer for everybody but an alternative to a home equity loan or to the sale of housing equity, against clear evidence that most households are unlikely to discontinue home ownership<sup>21</sup>.

The amount that may be borrowed usually does not fall below 30,000 euros (Banca Popolare di Sondrio, Intesa Sanpaolo S.p.A. and UniCredit S.p.A.) and should not exceed 700,000 euros (Deutsche Bank S.p.A.), depending on several factors, such as: a) the age of the homeowner, with the minimum of 60 years resulting in less than requested in other countries; b) the market value of the home, which can be hardly

---

21 S. F. Venti and D. A. Wise, *Aging and Housing Equity: Another Look*, Cambridge (MA), National Bureau of Economic Research, 2001.

assessed in objective terms and may influence the timing of making a reverse mortgage agreement in line with the trends in the local real estate market; c) the applicable interest rate, that may be subject to a cap if not fixed, according to Italy's specific legislation; and d) customized rules that may be eventually agreed upon concerning a gradual repayment by the borrower. Lessons learned abroad invite to account for a number of payment plans, including the so-called "term payment", "tenure payment", "modified term/line of credit", "modified tenure/line of credit", "single disbursement lump sum" and "line of credit" *tout court*<sup>22</sup>, whereby borrowers are allowed to pay unscheduled installments at times and in an amount of their choice.

Anyway, cautious and practical homeowners should be aware of the technicalities of reverse mortgages that over time are likely to undergo a more and more sophisticated product design, while financial institutions may be assumed to gradually exploit the potential of these loans even by way of securitizing them, just like any other type of loans. Focusing on borrowers, it is strongly recommended that independent advice is sought for before entering into a reverse mortgage agreement: no surprise that counseling agencies have been developed in the United States to the benefit of potential users, who can also count on trained information and dedicated services, such as those provided by the Illinois Department on Aging Senior HelpLine and its referral specialists; even professionals – such as realtors and home care workers – need to be educated "on how reverse mortgages can possibly better serve their clients"<sup>23</sup>, and this is just one of the reasons why the status that the real estate discipline has been granted up to now should be enhanced.

### Conclusions:

All in all, there is still much room for exploiting the potential of the market segment under investigation, which leads to highlight some policy implications of reverse mortgages: it is meaningful that the targets for reverse mortgage products have become wider and that even rich retirees have been reached in the last few years; perspective

---

22 National Reverse Mortgage Lenders Association, *Your Guide to Reverse Mortgages*, 2016, <http://www.reversemortgage.org/About/Types-of-Reverse-Mortgages/HECMOptions> (accessed December 19, 2017).

23 J. Oliva, *Advisers Get Crash Course on Reverse Mortgage Financial Planning Strategies*, 2016, <https://reversemortgagedaily.com/2016/03/21/advisers-get-crash-course-on-reverse-mortgage-financial-planning-strategies/> (accessed December 19, 2017).

borrowers may act in sight of fulfilling unprecedented goals, such as an expensive vacation, the reimbursement of previously accumulated debts and the provision of financial support to underbanked relatives. Additional financial literacy can contribute to an increased interest in these loans, though the achievement of more consistent welfare gains tends to be attributed to households with greater wealth but relatively little income flow and these perspective users are supposed to be better financially educated than typical borrowers, represented by old and poor homeowners.

It is not only a matter of promoting financial education and literacy centered upon reverse mortgages but also of avoiding confusing, incomplete and inaccurate statements regarding these instruments, especially in the light of their potential beneficiaries: financially vulnerable homeowners may have misconceptions about relevant features and terms of these instruments, which raise heightened concern because of the age of perspective users. While these loans are designed to help old homeowners to meet their financial needs, the retirement security that these people could enjoy might be jeopardized if reverse mortgages are not resorted to carefully.

To conclude, qualified reverse mortgage counselors can be expected to play a significant role, even to identify new needs that can be satisfied by making recourse to these loans, which paves the way to further research in sight of bridging the remaining gap between theory and practice. Actually, reverse mortgages should be considered as a part of the overall investment strategy of each homeowner, not only in Italy: the limitations of asset class driven portfolio construction that became apparent during the global financial crisis sound like an invitation to think about wealth allocation and management in broad terms; they should be based on such features as liquidity, longevity and legacy – not only in the interests of affluent homeowners – at any stage of one's life cycle.

### References:

- 1) Arceri, R. J., *Reverse Mortgage History, Five Star Reverse Funding*, <http://www.russcares.com/reverse-mortgage-history.html> (accessed December 19, 2017).
- 2) Baldini, A. and M. Causi, 'Il nuovo prestito vitalizio ipotecario: si svilupperà anche in Italia un mercato di strumenti finanziari per gli anziani?', *Bancaria*, vol. 73, n. 7-8, 2016, pp. 68-72.

- 3) Boggio, C., et al., *Seven Ways to Knit Your Portfolio: Is Investor Communication Neutral?* Moncalieri (TO), Center for Research on Pensions and Welfare Policies, 2014.
- 4) Borella, M. and M. Rossi, *Asset Accumulation and Decumulation over the Life Cycle. The Role of Financial Literacy*, Le Tilburg, Network for Studies on Pensions, Aging and Retirement, 2014.
- 5) Fornero, E., M. Rossi and M. C. Urzì Brancati, 'Explaining Why, Right or Wrong, (Italian) Households do not Like Reverse Mortgages', *Journal of Pension Economics & Finance*, vol. 15, n. 2, 2016, pp. 180-202.
- 6) Mannella, G. O. and G. C. Platania, *Il prestito vitalizio ipotecario*, Assago (MI), Ipsoa, 2015.
- 7) Ministry of Economic Development, *Prestito ipotecario vitalizio, ecco le risposte alle domande più comuni*, 2016, <http://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/2035272-prestito-ipotecario-vitalizio-ecco-le-rispsote-alle-domande-piu-comuni> (accessed December 19, 2017).
- 8) Mori, M., 'Financial versus Real Assets? No, Thanks! Focusing on Reverse Mortgages', *Journal of Global Economics, Management and Business Research*, vol. 7, n. 4, 2016, pp. 289-294.
- 9) National Reverse Mortgage Lenders Association, *Your Guide to Reverse Mortgages*, 2016, <http://www.reversemortgage.org/About/Types-of-Reverse-Mortgages/HECMOptions> (accessed December 19, 2017).
- 10) Oliva, J. *Advisers Get Crash Course on Reverse Mortgage Financial Planning Strategies*, 2016, <http://reversemortgagedaily.com/2016/03/21/advisers-get-crash-course-on-reverse-mortgage-financial-planning-strategies> (accessed December 19, 2017).
- 11) Venti, S. F. and D. A. Wise, *Aging and Housing Equity: Another Look*, Cambridge (MA), National Bureau of Economic Research, 2001.

---

## PROCESS APPROACH IN ORGANIZATIONS – DIMENSION OF COST ACCOUNTING

**PhD Eng. Mariusz Kolosowski**

**PhD Eng. Piotr Chwastyk**

Institute of Technical Sciences

University of Applied Sciences in Nysa

48-300 Nysa, Armii Krajowej 7, Poland

mariusz.kolosowski@pwsz.nysa.pl

piotr.chwastyk@pwsz.nysa.pl

---

### ***Abstract :***

*The idea of a process approach that is propagated, among others by the ISO 9000 standard, is presented in the paper. Essence of process management and difficulties linked with measurement and improvement of processes have been described. The discussion about cost calculation of processes pursued in enterprise in the context of effective management of these processes has been carried out in the paper. Subsequently the discussion has concerned imperfection of traditional methods of cost calculation. The cost calculation model based on Activity Based Costing has been proposed as a tool enabling precise processes cost determination together with its structure and consistently improvement of these processes. Benefits and limitations of the implementation of the proposed method have been pointed out.*

***Keywords:*** *process approach, ISO 9000 standards, Activity Based Costing, process improvement.*

---

### **Introduction**

Contemporary conditions of enterprises operating in turbulent surrounding, above all both intensifying competition and occurred changes dynamics, set new tasks in range of high quality products, increasing efficiency of business processes simultaneously aiming at decreasing the costs of production and shortening production cycles. Tendencies in the market economy development, such as keener competition, closer cooperation and global market, require knowing exact values of all cost components

related to manufacturing process, the total cost of manufactured products and, of course, the cost of all existing processes in organization.

Modern quality systems in organizations are generally based on the ISO 9000 guidelines. A significant number of enterprises all over the world prefer ISO 9001 (or other quality standards) certified business partners. Business contracts often are being preceded with the review of the quality manuals. Complying with requirements included in quality standards assures recipients of high capability of suppliers of products and services to fulfill quality requirements.

The ISO 9000 series consists of three basic standards:

- ISO 9000 “Quality management systems – Fundamentals and Vocabulary”, it is an introduction that facilitates understanding of the essence and content of other standards;
- ISO 9001 “Quality management systems – Requirements”, contains the requirements an organization must comply with to become ISO 9001 certified;
- ISO 9004 “Managing for the sustained success of an organization”, provides guidelines for sustaining quality management system success through evaluation and performance improvement.

According to the data published by International Organization for Standardization, already over one million organizations in the world, including more than ten thousand in Poland, implemented a standardized quality management system and obtained a certificate of its compliance with ISO 9001 ([www.iso.org](http://www.iso.org)). Such a wide and popular application of the quality management model described in the ISO 9001 standard results from its properties. The mentioned model is (Hamrol, 2017):

- complex – it contains all the requirements necessary to create an effective standardized quality management system,
- flexible – it leaves the organization free to choose methods and management tools,
- universal – it can be used properly in any type of organization,
- based on a broad organizational base – the standard describing the system is supported by organizations (eg. International Organization for Standardization, national standardization organizations) widely recognized as a forum authorized to introduce changes to the standard, independent assessments of standardized quality management systems, keeping a list of certified organizations, etc.,



- objective – assessment of the conformity of the standardized quality management system in the organization with the model reference standard is confidential, professional and based on the interpretation known to all the concerned.

ISO 9000 standards put special emphasis on the process approach. The modern practice of applying the process approach has been developing for decades as a part of developing the Toyota production system and then the lean management concept. However, currently the standards published by the International Organization for Standardization (ISO) are the most frequently indicated standard for the implementation of process management in organizations. These standards are constantly developed and the approach to process management presented in them has evolved along with the introduction of subsequent amendments to ISO 9000 standards.

The process approach means the necessity of identifying processes in organization and managing them. As long as the identification of processes in organizations does not make great problems, in so far as describing appropriate measuring instruments often seems to be more troublesome, by means of which the analyzed processes are monitored and improved.

Tendencies in the market economy development, such as keener competition, closer cooperation and global market, changes referring to technology and automation of production processes, increasing the range of products and shortening their life cycle, caused changes in the enterprises cost structure. Contemporary business is characterized by high share of indirect cost within production total cost. Moreover, that share shows permanently an increasing trend. That is why traditional methods of cost calculation provide inexact information that contribute to make mistaken decision. More over, described tendencies require knowing exact values of all cost components related to manufacturing process, the total cost of manufactured products and, of course, the cost of particular processes in enterprise. Traditional cost calculation methods do not make it possible (Matuszek, 2000; Sobańska, 2009).

Costs of processes are not recorded in the separate accounts in the traditional financial accountancy, that is why it should be carefully selected out of the other items passed in the system. It is one of the main reasons that reliable estimation of quality assurance processes costs in Polish enterprises is not common (Hamrol, 2001). This problem seems to touch other processes in organizations too. It is obvious that without precise cost information full description of effectiveness of the realized actions is impossible. That is why to put in practice the guidelines of the process approach by

introducing processes measurement, for example based on the balanced scorecard, it is necessary to apply an appropriate method enabling to gain suitable cost data and its transformation into usable information from improvement of processes point of view.

### **Process approach in organizations**

The process definition has evolved along with ISO 9000 standards. The term "process" was first defined in the terminology standard in 1994 as a "set of inter-related resources and activities which transform inputs into outputs" (ISO 8402:1994). According to the standard revised in 2000, a process is a "set of interrelated or interacting activities which transforms inputs into outputs" (ISO 9000:2000). The latest 2015 process definition is: "set of interrelated or interacting activities that use inputs to deliver an intended result" (ISO 9000:2015).

According to ISO 9001:2000 standard, in which the process approach was given special attention, in order to implement and maintain a quality management system, the organization should (ISO 9001:2000):

- 1) Identify the processes needed for the quality management system.
- 2) Determine the sequence and interaction of these processes.
- 3) Determine criteria and methods needed to ensure that both the operation and control of these processes are effective.
- 4) Ensure the availability of resources and information necessary to support the operation and monitoring of these processes.
- 5) Monitor measure and analyze these processes, and implement actions necessary to achieve planned results and continual improvement of these processes.

The practical implementation of process approach is most often manifested in activities such as (Zavadsky and Zavadska, 2014):

- determining responsibility for individual processes;
- prioritization of defined processes from the point of view of the value created for customers;
- describing the course of processes, taking into account their variability;
- monitoring process results using performance indicators.

Large number of methods of processes analyzing and assessment is based on the process cost, so it is necessary to use up-to-date management accounting tools, including advanced cost calculation methods. Standing cost account, based on division

and additional calculation methods, specifies only material cost, labour cost and overhead. Then, cost analysis is limited only to these cost areas (Matuszek, 2000).

Adaptation to the process approach assumptions entails the necessity of changes in the organizational structures of enterprises. Most of the management systems in Polish enterprises are based on functional structures. The crucial disadvantage of these structures is the fact that they reflect only the functions of organizations, but not the processes, that cut the borders of functional cells. Process approach requires glance on fundamental business processes from transfunctional perspective – processes runs horizontally through functional structure, as opposed to vertical labour division which is the base of traditional approaches towards organization managements (Matuszek, 2000). It forced development of new forms of organizational structures, as network or process structures.

### **The proposal of the cost calculation model based on the ABC method**

As mentioned before, modern organizations operate in a turbulent environment. Some companies, wanting to adapt to changing conditions, decide on radical solutions like Business Process Reengineering. Radical changes are not appropriate to the TQM philosophy, which is based on the Kaizen principle – continuous improvement. Such perceptible orientation of processes improvement assembles also the series of ISO 9000 standards. In accordance with them, the process approach is a “systematic identification and management of the processes employed within an organization and particularly the interactions between such processes” (ISO 9001:2000).

Transfunctional character of processes in organizations make traditional methods of cost calculation being not enough to gain precise cost data about these processes. The right solution can be Activity Based Costing (ABC) that is characterized with greater possibilities of describing cost of making particular actions, than division and additional methods, where bigger part of costs is calculated on cost drivers in averaged way or in the spread form. Moreover, traditional cost calculation methods do not enable determining cost of particular processes in enterprise, so analyzing, assessing and improving processes is limited. Implementing dedicated cost calculation method based on Activity Based Costing enables avoiding difficulties mentioned above (Matuszek, 2000).

That is the reason why the cost calculation model based on the ABC method has been worked out (Kołosowski and Chwastyk, 2014). The proposed method includes following stages of proceeding:

- 1) Selecting processes and activities within the processes.
- 2) Establishing the activities outputs.
- 3) Establishing activities outputs measures.
- 4) Assigning resources to activities and measuring the costs of these activities.
- 5) Assigning activities cost to processes and calculating cost of processes.

ABC method is based on the fundamental assumption according to which not products but activities in organizations are directly responsible for the cost incurred. Selecting activities in enterprise is a starting point of calculation accordingly the ABC method. According to ISO 9001:2000 standard „any activity, or set of activities, that uses resources to transform inputs to outputs can be considered as a process” (ISO 9001:2000). Activities may be selected basis on quality system procedures, production process documentation, technological documentation, interviews and research conducted in the enterprise.

Processes realized in enterprises consist of a number of activities. Before defining activities processes costs, first the cost of the individual cost cell should be defined. To define this, factory accounting sheet, in which intermediate indicating costs are accounted for organizational units in enterprises, may be used. These costs are accounted directly out according to consumption or indirectly according to proper keys of division. In production practice, one action is often made on many cost cells. In the balance sheet of activities for every cost cell one may isolate actions in which this particular cell takes part. The activities which are a part of one action may also be made on different cells, whereas one cell may take part in realization of actions which are parts of different activities. This interrelation has been presented in the Figure 1.

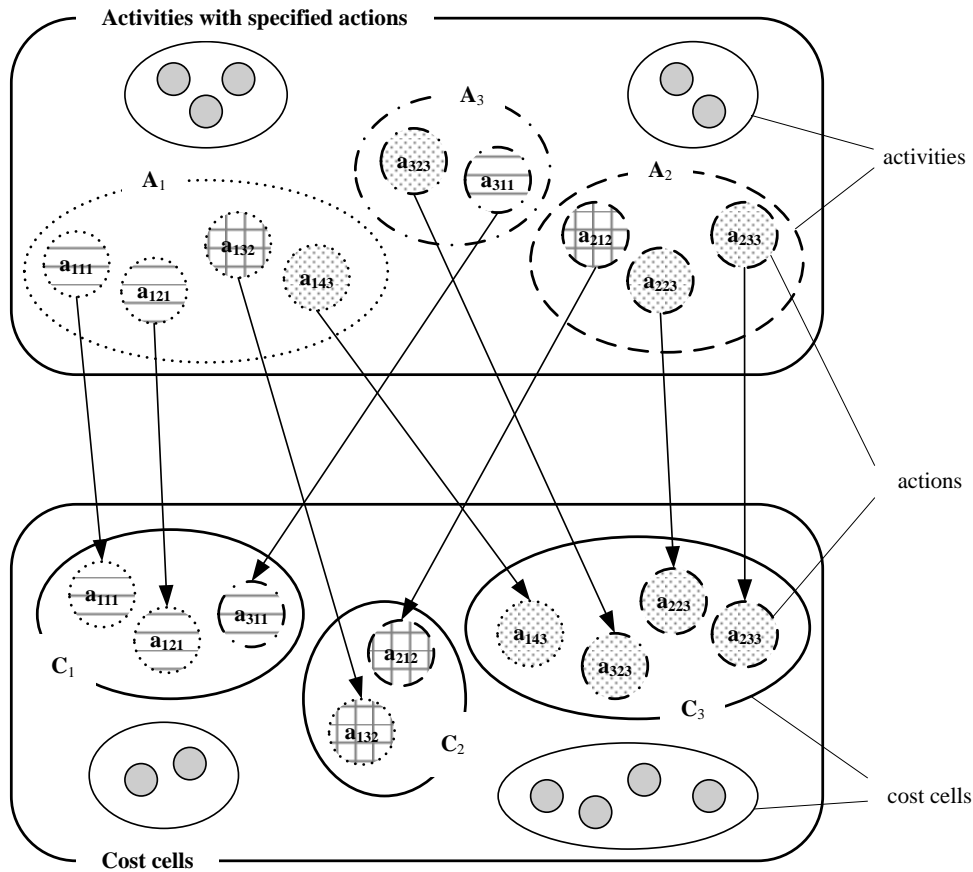


Fig. 1. Interrelation between activities, actions and cost cells (Kolosowski and Chwastyk, 2012)

Therefore it is possible to present total process cost as a total cost of activities of this process, while cost of particular activity could be expressed as a total cost of its actions – formulas (1-4):

$$P_p = \{A_{pz}\} \tag{1}$$

$$c_p = \sum_{z=1}^Z c_{pz} \tag{2}$$

$$A_{pz} = \{a_{pzki}\} \tag{3}$$

$$c_{pz} = \sum_{k=1}^K c_{pzki} \tag{4}$$

where:  $P_p$  – process “p”,  
 $A_{pz}$  – activity “z” included in process “p”,  
 $c_p$  – process “p” cost,  
 $c_{pz}$  – activity “ $A_{pz}$ ” cost,  
 $a_{pzki}$  – action “k” included in activity “ $A_{pz}$ ”, executed in cell “i”,

$c_{pzi}$  – action “ $a_{pzi}$ ” cost.

Subsequently the activities outputs and establishing activities outputs measures are established. These measures are quantitative indicators of the activities results. They are the base of assigning activities costs to processes. These measures should (Nowak and Wierzbinski, 2010):

- express the demand of a particular cost object for the activities;
- reflect the causes of costs;
- be understandable and easy to measure;
- be a compromise between accuracy and cost measurement.

Selecting these measures (distribution keys) is a very difficult and responsible task, because appropriately selected distribution keys determine accurate cost calculation. So the aim is to compromise between the accuracy of the calculation and the cost of obtaining relevant data.

### **Process improvement**

The main aim of the process approach is making processes improvement in enterprises possible. That is why processes in organizations should be defined and described as carefully as possible. Process improvement needs introducing process measurement, otherwise criteria of process assessment would not be unambiguous. According to economic aspects of running business, financial measures of processes are especially crucial for business efficiency. Therefore, the proposed method of cost calculation seems to be fully justified. Running process cost account according to ABC method makes taking reasonable decisions connected with processes in enterprise possible. Analyzed processes implemented in organizations supply data to conduct cost calculation according to ABC method. As a result we get accurate information concerns effectiveness of making an action, amount of bearing costs or processes and actions demanding improvement. This information is used in taking decisions linked with perfecting those processes in enterprise. Due to Z. Zymonik (Zymonik, 2003), cost analysis and advantages connected with processes realization and researches of solutions making a success for enterprises require taking Rummler and Brache’s three levels of efficiency into consideration: organization, process and work station (Fig. 2).

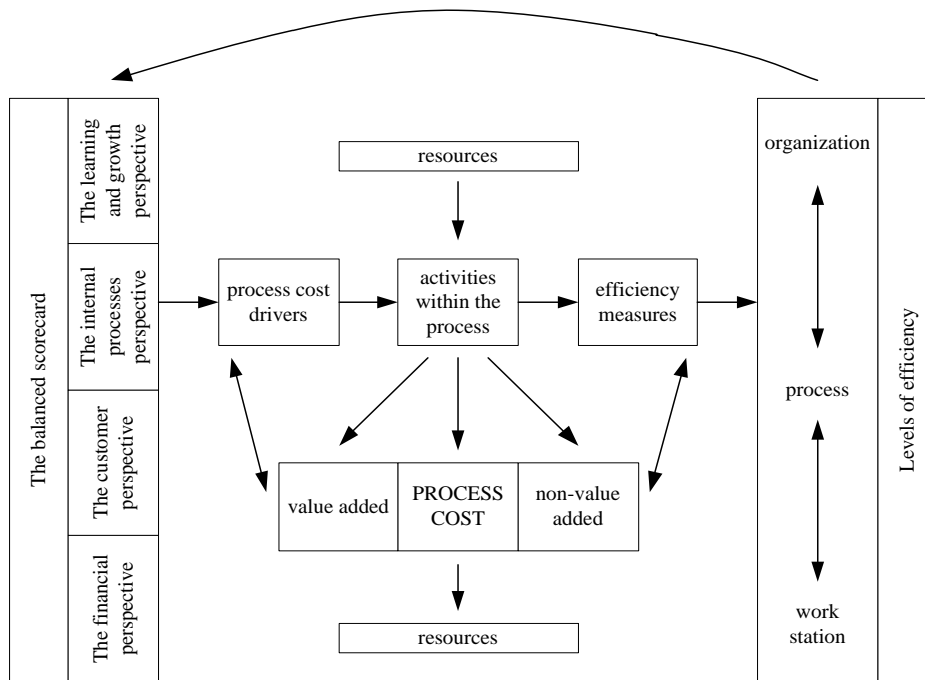


Fig. 2. Process cost based on activities

[worked out on the basis of (Zymonik, 2003)]

Making the most of possibilities to processes improvement realized in enterprise could be possible thanks to preparing of Activity Based Management system – ABM (Miller, Pniewski and Plakowski, 2000). This system focuses on processes management and actions in order to rising the value obtained by customer and increasing profits spring into existence thanks to creation of that value. That system should include analysis of factors that generate costs, activities analysis and efficiency measurement.

## Conclusion

Cost calculation based on the ABC method is very beneficial. It allows to answer following questions:

- Which activities consume specified resources in the organization?
- What is the cost of individual processes and activities of the company?
- Why the organization needs to pursue particular activities and business processes?
- What factors influence the amount of the costs of individual processes and activities?
- What part of activities is due to specific groups of products, services and purchasers of the company products?
- Which activities performed within the process are value added, and which lead to the reduction of the process value?

There are also some limitations of using the ABC method in practice that should be mentioned:

- operation of most enterprises based on traditional functional organizational structure,
- time-consuming process of implementation,
- the correct identification of activities in the organization and defining units of measurement,
- the need for involvement managers of all departments in the preparations for the implementation,
- significant effort and high cost of operation of the ABC system in organizations,
- the need for continuous updating of the system after implementation.

However, it should be emphasized that despite the difficulties associated with implementing and maintaining the ABC accounting systems, detailed cost analysis of particular process phase of production system conducts to minimization total production costs simultaneously meeting demanding of product consumers. It is crucial, so that process analysis should be complex from economic results of enterprise activity point of view and include whole production system. We should move towards obtain possibly beneficial results for whole system, not just for a selected fragment.

#### **References :**

- 1) Hamrol, A. (2017). Quality management and engineering (in Polish: Zarządzanie i inżynieria jakości), PWN, Warsaw.
- 2) Hamrol, A. (2001). Selected issues of quality engineering in a production enterprises (in Polish: Wybrane zagadnienia inżynierii jakości w przedsiębiorstwie produkcyjnym), Scientific Conference „Manufacturing ‘01. Contemporary problems of manufacturing”, Poznan, vol. 2, pp. 253-278.
- 3) Matuszek, J. (2000). Production engineering (in Polish: Inżynieria produkcji), Publishing House of Technical University of Lodz, Bielsko-Biala, 2000.
- 4) Sobańska, I. (Ed.) (2009). Cost accounting. Operational and strategic approach (in Polish: Rachunek kosztów. Podejście operacyjne i strategiczne), C.H. Beck, Warsaw.
- 5) International Organization of <https://www.iso.org/> (December 20, 2017).



- 6) ISO 8402:1994 “Quality management and quality assurance – Vocabulary” (1994). International Organization for Standardization.
- 7) ISO 9000:2000 “Quality management systems. Fundamentals and vocabulary” (2000). International Organization for Standardization.
- 8) ISO 9000:2015 “Quality management systems. Fundamentals and vocabulary” (2015). International Organization for Standardization.
- 9) ISO 9001:2000 „Quality management systems. Requirements” (2000). International Organization for Standardization.
- 10) Kołosowski, M. and Chwastyk, P. (2012). The conception of a process cost calculation, Annals of DAAAM for 2012 & Proceedings of the 23rd International DAAAM Symposium, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, pp. 413-416.
- 11) Kołosowski, M. and Chwastyk, P. (2014). Economic aspects of company processes improvement, 24th International DAAAM Symposium on Intelligent Manufacturing and Automation, Procedia Engineering, Elsevier Publishing Ltd., Vol. 69, pp. 222-230.
- 12) Miller, J., Pniewski, K. and Polakowski, M. (2000). Activity Based Management (in Polish: Zarządzanie kosztami działań), WIG – Press, Warsaw.
- 13) Nowak, E. and Wierzbiński, M. (2010). Cost accounting. Models and applications (in Polish: Rachunek kosztów. Modele i zastosowania), PWE, Warsaw.
- 14) Zavadsky, J. and Zavadska, Z. (2014). Utilisation of business process models in managerial practice: An empirical study in Slovak companies certified to the ISO 9001 standard, Total Quality Management, no. 4 (25).
- 15) Zymonik, Z. (2003). Cost of quality in business management (in Polish: Koszty jakości w zarządzaniu przedsiębiorstwem), Publishing House of Wrocław University of Technology, Wrocław.

**THE MEXICAN INSTITUTIONS IN THE CREATION AND  
CONSOLIDATION OF SMEs**

**LAS INSTITUCIONES MEXICANAS EN LA CREACIÓN Y  
CONSOLIDACIÓN DE LAS PYMES**

**José G. Vargas-Hernández, M.B.A.; Ph.D.**

**L.E. Sandra Quiroz Mendoza**

University Center for economic and Managerial Sciences, University of Guadalajara

Periférico Norte 799 Edif. G.201-7, Núcleo Universitario Los Belenes

Zapopan, Jalisco, 45100 México

Tel. 523337703340 Ext. 25685

e-mail: sandy-0107@hotmail.com, sandraquiroz0701@gmail.com

jvargas2006@gmail.com, josevargas@cucea.udg.mx

---

***Abstract :***

*The institutional framework that micro, small and medium enterprises face since the creation in Mexico is extensive, but how do these institutions affect or benefit? The present research aims at the analysis of formal and informal institutions on MSMEs in Mexico. Due to the multiple formal institutions and procedures required for the operation of the company, in addition to factors such as insecurity and corruption, a large number of companies fail to consolidate and tend to disappear long after its creation.*

***Keywords:*** *Institutions, Pymes, corruption*

***JEL:*** *M10*

---

***Resumen***

*El marco institucional al que se enfrentan las micro, pequeñas y medianas empresas desde la creación en México es extenso, pero ¿Cómo afectan o benefician dichas instituciones? La presente investigación tiene como objetivo el análisis de instituciones formales e informales sobre las mipymes en México. Debido a las múltiples instituciones formales y los trámites que exigen para el funcionamiento de la empresa,*

---

*además de factores como inseguridad y corrupción, un gran número de empresas no logran consolidarse y tienden a desaparecer tiempo después de su creación.*

**Palabras clave:** *Instituciones, pymes, corrupción*

---

### **Introduction:**

Out of the one hundred percent of the companies that operate in Mexico, 97.62% are microenterprises which concentrate 75.4% of the employed personnel. These are the small companies that in total are 1.96% and they have the 13.5% of the personnel occupied. Last are located the medians which are only 0.4% of the total of the companies and concentrate 11% of the personnel occupied. All these data according to the National Survey on Productivity and Competitiveness of Micro, Small and Medium Enterprises (ENAPROCE, 2016).

The previous statistical data provided by the National Institute of Statistics and Geography (INEGI, 2017) speak of the great importance that micro, small and medium enterprises (MIPYMES) has for the Mexican economy; The consolidation of new business ideas is of great importance, due to their ability to employ unoccupied staff. Institutions, whether informal or formal, play a leading role during the long journey of MSMEs towards consolidation or proper functioning.

Of the MYPIMES created annually 8 out of 10 close in the second year of operation this mainly due to lack of financial protection. The stagnation of growth and in most cases the closure of the MYPIMES in Mexico is due to multiple reasons, the most important to formal institutional factors, but mainly informal institutions, such as high levels of insecurity and corruption which grow day by day and which affects to a large extent these companies that are hardly engaging the market and its operation.

The institutions have a decisive role in the life of the company in Mexico, so it is necessary to carry out an investigation that provides the affectations that these institutions have.

### **Purpose:**

The main objective of the present research is to identify the institutional framework that the micro, small and medium enterprises in Mexico face from the creation to the consolidation of the same one. As an institutional framework, all governmental and

non-governmental agencies that in one way or another maintain contact with the MYPIMES, with positive or negative benefits, are understood. More than 60% of the Mexican economy is in the informality, mainly due to tax evasion, thus giving up the possible benefits of the formal economy, such as credits, financing, among others.

If being within the formal economy poses positive benefits, because most MYPYMES remains in informality, what role do the institutions have in deciding whether or not to enter into the formality?

In Mexico, there are various incentives to start a business idea, the Mexican government makes available to entrepreneurs a series of programs focused on giving attention, from early stages, to business developers. There is, for example, the National Institute of Development of the Entrepreneur. But, despite all the above, MYPYMES do not exceed the first year of life?

**Background:**

The formal and informal institutions in Mexico are one of several factors why a company does not have the expected result in terms of its operation and consolidation, due to the multiple procedures that must be faced in order to obtain the support of various financial institutions. The distrust that the financial institutions have towards MSMEs is high so, they require that they comply with a myriad of requirements which makes the process cumbersome, making the small entrepreneur choose to abandon the business idea.

This lack of confidence of financial institutions causes transaction costs to rise. The role of institutions is to reduce these costs, but the question is: Do the formal institutions manage to reduce these costs in Mexico?

**Justification:**

98% of the companies established in Mexico are microenterprises. They are the greatest creators of employment. This is one of the main reasons why it is necessary to pay attention to the process of development and consolidation of the same to achieve the sustained growth that they require and therefore have long periods of life.

In the current administration the federal government led a series of strategies to achieve that many of the MSMEs still in the informal economy move to formality and has granted for a period various fiscal and legal incentives to achieve this, although these have had significant results.

According to data from the National Survey on productivity and competitiveness of micro, small and medium enterprises (ENAPROCE, 2016), employ 6'530,227 people. This is one of the main reasons why it is very important to pay attention to the needs of MSMEs.

**Contextual framework:**

Currently, the Mexican economy is in a period of slow growth, or economic growth at minimum rates of Gross Domestic Product (GDP), according to forecasts of economic growth of the Bank of Mexico (BANXICO, 2017) the expected growth rate for this year is 1.3%. The economic scenario is not encouraging for most companies to remember that just at the beginning of this year fuel prices increased significantly. This brought with it an increase in prices of most goods and services, a situation that affects not only to businesses especially to families.

In addition to this, the commercial tension between Mexico and the United States grows, due to the immediate demands of the renegotiation of the Free Trade Agreement of America (NAFTA), a situation that will have consequences in the short term due to the dependence of the Mexican economy in exports and imports with the United States. Experts on the subject view as a viable option the strengthening of the domestic market as a measure that could alleviate the effects of such commercial renegotiation, should the result of such renegotiation not be expected.

One of the options is the strengthening of the internal market and with it the strengthening and consolidation of MSMEs, which is why it is very important to pay attention to them, since in Mexico these companies represent about 98 percent of the established companies and the contribution to the Internal Product Gross is almost 52 percent, according to the official website of the National Commission for the Protection and Defense of Users of Financial Services (CONDUSEF, 2017).

The various Mexican institutions, both formal and informal, affect the operation of MSMEs, so it is important to give the necessary attention in this way to determine the correct mechanisms with which the creation and, above all, consolidation of these companies can be stimulated, since According to the Confederation of Industrial Chambers (CONCAMIN, 2017), only 25 percent of the companies that are created annually survive the second year of operation.

**Theoretical review:**

Institutions understood as the limitations to the behavior of an individual or a society, has a very important role in the creation and consolidation of MSMEs is concerned, any entrepreneur or entrepreneur must abide by them for the proper functioning of their organization. Leaving the institutional framework entails tangible and intangible sanctions for the organization.

First, the institution will be defined. Douglas North (Vargas Hernández, Guerra García, Bojórquez Gutiérrez, & Bojórquez Gutiérrez, 2014) defines institutions as the humanly constructed constraints that structure human interaction. On the other hand, the institutional framework is described by Peng (2012) as the set of formal and informal organizations, which are responsible for regulating the human behavior of people and companies. These are based on three pillars, which are: regulators, normative and cognitive, these three pillars are those described by Richard Scott.

As mentioned above, institutions are divided into both formal institutions and informal institutions. Within formal institutions it is found the laws, regulations and rules to which every individual who interacts in a society must be subject or otherwise have sanctions, which are described in the regulations and laws.

As for formal institutions, all MSMEs that are established in Mexico will be subject to the Federal Law of mercantile companies. This law is in charge of regulating anonymous companies or not, codes or state laws and municipal regulations on the opening of establishments, which depend on the geographical location where the MSME is established, as it will change depending on the state or municipality; Income Tax Law (ISR), Single Tax Rate Business Act (IETU), Value Added Tax (VAT), Industrial Property Law, Federal Data Protection Act, Federal Labor Law, Social Security, Law of the Institute of the National Housing Fund for workers. Each law has a particular objective which seeks the regulation of all companies in Mexico.

On the other side of the institutional framework are informal institutions which include norms, culture and ethics that apply. According to Peng (2012) these formal institutions have two supports: normative and cognitive. The first refers to how it influences the behavior of people and in this case companies, the values, beliefs and actions of relevant actors. On the one hand, of the cognitive pillar, (Peng, 2012) refers to the internal values and beliefs that guide the behavior of individuals and companies. Some of the informal institutions are covered by the culture, beliefs and values of a society and that in some way affects the functioning of MYPYMES in Mexico.

Culture can be defined as the collective programming of the mind of individuals. This programming or way of thinking distinguishes the members of one group or category of people from another (Hofstede, 2011). Ethics is also part of all informal institutions, defined as "Norms, principles or standards of conduct that govern the individual behavior of organizations" (Vargas, 2005, p.133). Kaushik Basu explains the importance of social norms and culture in the functioning of the economic system, in the first instance it should be understood that all human beings are socially designed to behave in a certain way respecting the social norms that exist (Basu, 2013). All the social norms in which action delimit our behavior and in this case delimit the action of the MSMEs, each regulation or law limits the possible actions that the companies can carry out.

The central question is What do institutions do? Or why are they so necessary? According to Peng (2012) the role of institutions is to reduce uncertainty because they indicate the legitimate and illegitimate channel, what institutions do is to delimit actions to only acceptable leaving out those outside this range and thus reduce transaction costs. Reducing uncertainty leads to a reduction in transaction costs which are vital for the proper functioning of any economy. The less transaction costs, the economy of a country or a locality function more effectively.

Transaction costs were introduced by Coase and defined as the costs of market use (Salgado, 2003). Transaction costs are only the costs of information search, negotiation costs, decision making, formulation costs, and policy implementation. Another definition for transaction costs is the one proposed by Peng (2012) which defines this concept as: the costs associated with economic transactions, or the costs of conducting negotiations.

Institutions, both formal and informal, play a vital role in the reduction of transaction costs, without the existence of these the operation of each transaction in the economy would be much greater. In developed economies transaction costs tend to zero, while in developing economies these costs are much higher. This is explained by the weakness of the institutions, which makes the uncertainty high, which is why it is necessary the signature of contracts between individuals.

In the framework of informal institutions according to Peng (2012) these institutions reduce uncertainty in various ways. The first is related to relationship contracts, known as "personalized exchanges", informal and based mainly on relationships. Robert Putnam's theory of social capital brings much to the subject of

reducing transaction costs through informal institutions. Social capital is understood as "the characteristics of social organization, such as networks, norms and trust, which facilitates coordination and cooperation for mutual benefit" (Urteaga, 2013, page 45). These networks of confidence through expected behavior cause confidence among economic agents to be high so that transaction costs will be null, because expected behavior.

One concept that helps to understand the importance of informal institutions is "The Culture of Confidence: one can trust the given word because that is the social norm so people follow it by instinct" (Basu, 2013, p. 167). The main reason why the culture of trust is important is because if it is needed to rely on the other's word on multiple occasions it is not feasible to sign any contract at any time and then go to court in if the other party does not comply with the agreement, it is not feasible because of the high costs that the operation will have. That is why the culture of trust between two parties is important.

Another important concept within the theoretical review of formal and informal institutions is institutional transactions, which are defined as major changes that are incorporated into the formal and informal rules of the game that affect organizations as players (Peng, 2012).

Property rights are another of the formal institutions that influence business. These rights are social institutions that define the range of privileges granted individuals to specific resources. In other words, it is the right of individuals to direct or indirect power on an object or a good (Mahoney, 2010). The theory of property rights was developed by various theorists including Ronald Coase to explain the social and economic relationships that people should take into account when using scarce resources.

### **Analysis of results:**

In Mexico, starting a business is very complicated because of the multiple steps that the entrepreneur must undertake. The process is so long that many of them resort to corrupt practices such as bribes to try to accelerate the process, according to the National Observatory of Entrepreneur (ONE, 2017) 18 percent of companies consider corruption as the first obstacle.

A press release from the Millennium group, published on November 17, 2015 (Guzmán, 2015), sets out the various reasons why SMEs use this practice, 19 percent



do so to speed up the procedures to which they are subjects, 16 percent do so to benefit from a program, 15 percent to obtain permits, 12 percent to perform a normal-time procedure, 9 percent to obtain a public purchase. These practices of corruption affect the growth of MSMEs, which is why many of them never reach a stage of true growth and as a consequence they disappear later.

The necessary steps for the creation of a company in Mexico are extensive due to the multiple formal institutions. In the first place, a constitutive act is required. This document gives life to the company and stipulates all the general and basic aspects, said act must be formalized before a notary public.

Subsequently, it is required that the new company has the registration before a notary public because of this registration will obtain the fiscal certificate which contains the federal taxpayer registration number. As a next step, a public register of the property and the trade where the real estate that forms the new company, as well as the aims pursued, goals and commercial goals will be registered.

The next step is the registration with the Mexican Institute of Social Security this so that the worker, the workers, or in case that only exists the owner, he makes the personal contributions to their Social Security accounts, in addition there is a sanction of which the entrepreneur will be liable in case of not performing the due procedures in a timely manner. Finally, a registration will be made before the other agencies required depending on the company's turn, such as the Secretary of Health, Secretary of Ecology and Environment, the Mexican Institute of Intellectual Property. Various municipal or state permits are also required depending on the geographic region where the company is incorporated.

All the mentioned procedures only constitute the beginning of the company, as it can appreciate the procedures and the formal institutions to which the entrepreneurs must come with the desire to formalize a company are diverse. It is here where due to the circumstances presented throughout the process may fall into existing and widespread corruption in Mexico. The procedures and the Mexican bureaucracy are so cumbersome that many entrepreneurs choose to pay "bites" to speed up the process.

During the life of the company, the procedures are different, for example, before the Tax Administration Service each company is required to make statements about annual sales amounts, statements in which employers can opt for cover-up or falsehood of information so that the amount that the Tax Administration Service retains is the minimum possible. On the side of informal institutions, the organizational culture in the

MSMEs is what it could determine the success within it. If the entrepreneur who is initiated with is able to add the vision of his business, the mission, values and goals he seeks, but in addition to this, he is able to spread and make his organization share the same perspective, get the desired success.

According to the multiple versions offered by the government, all the procedures that are required for an MSME to function legally in Mexico are necessary for them to enjoy various financial supports issued. It is here that identifies another of the problems that affect business, distrust. Results obtained through the National Survey on productivity and competitiveness of Micro, Small and Medium Enterprises (ENAPROCE, 2016), out of a total of 1'346,071 companies that are willing to receive some type of financing, 36.2% of them do not have confidence in banking institutions, 1,619,441 companies mention that financial support is expensive and so do not request any of them.

Of the government financial support, the main reason for not granting such support to MSMEs was the lack of a guarantee, as they did not have a credit history or could not verify income. One of these supports is the Fund for Micro, Small and Medium Enterprise according to the official website, this is an instrument that seeks to support companies mainly the smallest as well as entrepreneurs in order to promote the economic development of the country, support is through temporary support programs or projects that seek creation, development, productivity, competitiveness and the sustainability of micro, small and medium enterprises (FONDO SME, 2017).

The MIPYMES can access the National Institute of Entrepreneurs (INADEM, 2017), which has a series of programs and projects for businesses, advises entrepreneurs throughout the process to achieve consolidation, and has multiple funds Financing offered to SMEs that wish to consolidate or those who are just looking to start with a business project. Another institution in which SMEs can find financing is National Financial, in this institution there is a program called "SME Credit Program". This program is developed by Nacional Financiera, only considers financing for operation or equipment (NAFIN, 2017).

Finally, MSMEs have the option of strengthening through the government's "Grow Together" program.

In February 2016, the reform to the General Law of Commercial Companies was approved. This reform allows companies whose annual revenues are less than 5 million pesos to be set up without costs, the reform allows the process to be ready in 24

hours (SEGOB, 2016). The companies created from the modification of this law is named "Simplified Share Companies". This new regime does not require minimum capital and may be constituted by one or more partners.

This reform brings benefits to the entrepreneurs because with the law without reform the notarial procedures had a duration of 75 days and the cost of this process was approximately \$ 35,000 pesos. This reform represents an advance, however, of the member countries of the Organization for Economic Co-operation and Development (OECD, 2017). Mexico is the country where entrepreneurs have less government funding for tax incentives.

By means of a decree signed by the president of the republic in 2017 and 2018, small and medium-sized companies will be able to deduct the Income Tax from the investments they make in fixed assets, such as machinery. In addition to the above, the Tax Administration Service will implement an application through which small and medium enterprises can carry out such tax simplification.

Due to all the bureaucratic procedures that mean for entrepreneurs to legally establish themselves as a company in Mexico, many of them opt to belong to the informal economy where there are no permit costs, there are no tax payments to the Tax Administration Service. An escape for thousands of companies. This situation is not in any way convenient for the government and the tax collection, because they mean lower income for various taxes, in addition the workers who work for these companies do not have any type of labor benefits, they do not contribute for their subsequent retirement.

These situations derived from an MSME's remaining in the informal economy mean long-term government problems. It is for this and other situations that it is convenient for small businesses to belong to the formal economy. The problem is the difficulty in getting these companies that are already established in the informal economy to move to the formal economy where they can contribute taxes to the country.

The incentives offered to achieve this change must be sufficient, in addition to the entrepreneurs must be certain that the taxes that are charged for various concepts will have a positive return which will give them greater benefits. Currently the MSMEs in addition to the financing and various problems that have been described have to deal with the problems of insecurity in Mexico, where various gangs of criminals charge flat fees so that companies can continue to operate with some peace of mind. One of the

obligations that the government has with citizens is the guarantee of security, an incentive for these companies to move to the formal economy is precisely the guarantee that they will have greater security with which they can devote themselves to the economic activity to which they belong with tranquility and not as it is today, with uncertainty.

### **Conclusions and recommendations:**

Although the OECD places Mexico as one of the member countries with the least fiscal stimulus for small and medium-sized enterprises, there are a variety of mechanisms that entrepreneurs can count on to strengthen their business idea. There are a number of government institutions that support entrepreneurs from the early stages; however, many of them reject interest rate financing, as there is fear of losing the investment and still paying for the financing.

The current culture of corruption in Mexico is causing a large number of MSMEs to choose to pay bribes to civil servants to streamline all the procedures of the company. However, these transaction costs should not exist in a country with strong legal institutions, and that these institutions ensure the proper functioning of the economic system. This added to all the problems that crime brings is causing a large number of companies created fail to exceed the first year of operations.

The MSMEs that are operating within the informal economy represent lost tax revenues, these companies do not make the payment of taxes as do companies that are formally established. The refusal to move to the formal sector is diverse, so the government must find the right incentives.

One of the incentives that would result in the guarantee of security for the free operation of the company, this security should not only reflect an incentive to motivate companies to formally establish, if it is not the State's obligation to provide security to their Citizens.

### **References :**

- 1) Banxico (2017). *Banco de México*. Recuperado de <http://www.banxico.org.mx>
- 2) Basu, K., (2013). *Más allá de la mano invisible*. México: Fondo de Cultura Económica
- 3) CONDUSEF (2017). *Comisión Nacional para la Protección y Defensa de los Usuarios de Servicios Financieros* (2017). Recuperado de:

- <http://www.condusef.gob.mx/Revista/index.php/usuario-inteligente/educacion-financiera/492-pymes>
- 4) CONCAMIN (2017). *Confederación de Cámaras Industriales*. Recuperado de: <http://concamin.mx>
  - 5) ENAPROCE (2016). *Encuesta Nacional sobre Productividad y Competitividad de las Micro, Pequeñas y Medianas Empresas*. Recuperado de <http://www.inegi.org.mx>
  - 6) FONDO PYME (2017). *Fondopyme*. Recuperado de <http://www.fondopyme.gob.mx>
  - 7) SEGOB (2016). *Decreto por el que se reforman y adicionan diversas disposiciones de la Ley General de Sociedades Mercantiles*. Publicado en el Diario Oficial de la Federación del 14 de marzo de 2016. México.
  - 8) Guzmán, A., (17 de noviembre de 2015). *Corrupción frena el crecimiento de pymes: especialistas*. Milenio. Recuperado de: <http://www.milenio.com>
  - 9) Hofstede, G., (2011). *Culture's consequences (1st ed.)*. Thousand Oaks. Sage Publ.
  - 10) INADEM. (2017). *Instituto Nacional Del Emprendedor*. Disponible en <https://www.inadem.gob.mx>
  - 11) INEGI (2017) *Instituto nacional de Estadística y Geografía*. Disponible en: <http://www.inegi.org.mx>
  - 12) López, J., (17 de enero de 2016) *Fracasan en México 75% de emprendimientos*. El Financiero. Recuperado de <http://www.elfinanciero.com.mx/empresas/fracasan-en-mexico-75-de-emprendimientos.html>
  - 13) Mahoney, J., (2012). Property rights theory. *Economic Foundations of Strategy*. (pp. 158-199). Champaign, Illinois.
  - 14) NAFIN (2017). *Nacional Financiera*. Recuperado de: <http://www.nafin.com/portalnf/content/home/home.html>
  - 15) OECD (2017). *Organización para la cooperación y el desarrollo económico*. Recuperado de: <http://www.oecd.org/centrodemexico/laocde/>
  - 16) ONE (2017). *Observatorio Nacional del Emprendedor*. Recuperado de: <http://www.one.inadem.gob.mx>
  - 17) Peng, M. W., (2014). *Énfasis en las Instituciones, la cultura y la Ética*. En Estrategia Global. (pp. 92-114) México. Cengage Learning Editores.

- 18) Salgado C. E; (2003). *Teoría de costos de transacción: una breve reseña. Cuadernos de Administración*. Recuperado de <http://www.redalyc.org/articulo.oa?id=20502604>
- 19) Urteaga, E., (2013). *La teoría del capital social de Robert Putnam: Originalidad y carencias. Reflexión Política*. Recuperado de <http://www.redalyc.org/articulo.oa?id=11028415005>
- 20) Vargas Hernandez, J., Guerra Garcia, E., Bojórquez Gutierrez, A., & Bojórquez Gutierrez, F. (2014). *Gestión Estratégica de Organizaciones* (1st ed.). Buenos Aires, Argentina: El Aleph.
- 21) Vargas J.G., (10 de agosto 2005). *Análisis de fundamentos de la Teoría Institucional*. Revista Digital Universitaria [en línea]. Vol. 6, No. 8. Disponible en Internet: <http://www.revista.unam.mx/vol.6/num8/art84/int84.htm>

---

**COLLABORATION IN THE MEXICAN PHARMACEUTICAL INDUSTRY:  
AN ANALYSIS WITHIN THE INSTITUTIONAL FRAMEWORK**

**José G. Vargas-Hernández, M.B.A.; Ph. D.**

Department of Administration. University Center for economic and Managerial Sciences University of Guadalajara.

Periférico Norte 799 Edificio G-201-7, Núcleo Universitario Los Belenes CUCEA

Zapopan, Jalisco C.P. 45100; México

Tel y fax: +52(33) 37703340, 37703300 ext. 25685

josevargas@cucea.udg.mx, jgvh0811@yahoo.com, jvargas2006@gmail.com

**Alma Isela Rodríguez Hernández**

Master in Business and Economic Studies

University Center for economic and Managerial Sciences. University of Guadalajara.

Periférico Norte 799 Edif. G.201-7, Núcleo Universitario Los Belenes. Zapopan,

Jalisco, 45100 México. Tel: +52(55)44577010. Email: alma\_rguezh@outlook.es

---

***Abstract:***

*The objective of this study is to analyze the collaboration networks of the Mexican pharmaceutical industry from an institutional approach. The pharmaceutical sector at a global level is characterized by a high dynamism in innovation and collaboration. One could say that the high value recorded by the industry is due to this. However, in Mexico the lack of efficient institutions that ensure the appropriation of profits for investment in research within the industry are not perceived, this situation leads us to the next question, What is the dynamics of collaboration between pharmaceutical companies in Mexico? To answer this question, a database was created which identifies the alliances of the companies belonging to the Canifarma. Finally, a comparison of the number of registrations and patent applications between eight of these companies is made to measure the results of this situation.*

**Key Words:** *Networks, alliances, institutions*

**JEL:** *L14, L24, L65, P37*

---

***Resumen***

*El objetivo de este documento es analizar las redes de colaboración de la industria farmacéutica mexicana desde un punto de vista institucional. El sector farmacéutico a nivel global se caracteriza por un alto dinamismo en materia de innovación y*

---

*colaboración. Se podría decir que el alto valor que registra la industria se debe a esto. Sin embargo, en México la falta de instituciones que garanticen la apropiación de beneficios por las inversiones en investigación dentro de la industria no son percibidas lo que lleva a preguntarnos ¿cuál es la dinámica de colaboración entre las empresas de este sector en México? Para responder a esta pregunta se creó una base de datos en la que se identifican las alianzas de las empresas pertenecientes a la Canifarma. Finalmente, se hace una comparación de la cantidad de registros y solicitudes de patentes entre ocho de estas empresas para medir los resultados de esta situación.*

**Palabras clave:** *Redes, alianzas, instituciones*

---

**Introduction:**

The pharmaceutical industry in Mexico has been consolidated by its high competitiveness and growth. This industry contributes 1.2% of the Gross Domestic Product (GDP). In addition to the fact that in recent years it has registered a steady increase in its market value, placing it in the eleventh position of the markets with the highest value according to data from the Federal Commission for Protection against Health Risks (Cofepris, 2013). However, the number of Mexican companies in the sector that manage to enter into strategic alliances and cooperation networks that allow them to acquire sustainable competitive advantages are few.

This can be verified by reviewing patent applications by Mexican pharmacists compared to foreign ones. In this industry it is common for large multinational companies to acquire smaller Mexican companies. The purpose of this work is to perform an analysis of the networks and alliances of the industry in general and then focus on eight companies belonging to the National Chamber of Pharmaceutical Industry (Canifarma) as the most representative body in the industry.

In this way, the work is composed in its first section of the literature review on collaboration networks, followed by the empirical review that shows case studies similar to the present. The third part presents a brief description and analysis of the current situation of the existing networks within the industry with data obtained from the Canifarma. Also included are the registers of the eight companies chosen randomly from the list of Canifarma members. Finally, the conclusions are presented and some suggestions are made to improve the collaboration activity between the companies of the sector in Mexico. It is recognized that the limitations of the document are based on



the limited information available on the collaborative activities of the chosen companies.

**Background of the problem:**

The pharmaceutical sector at a global level has been characterized by its high investment in R & D which has made it one of the most innovative. Precisely this - innovation - is the pillar on which the rapid growth of this sector is based (KPMG, 2006: 6). However, there are a number of factors that threaten the growth of this sector. These threats include counterfeiting (piracy), theft, smuggling, and the alteration or adulteration of pharmaceutical products that represent a loss of billions around the world, representing 10 percent of world trade (AMECE and La Salle, 2006).

Another factor that while not illegal but competing ironically with pharmaceutical laboratories are known as generic drugs. These types of drugs arise when the patent, document issued by the State granting the exclusive right to use or commercially exploit someone an invention, loses its capacity for protection. The aim of the patent is for laboratories to recover development costs before making a profit, but when the right of exploitation ends, any laboratory can manufacture the drug and its prices decrease. In the United States and the European Union, patent protection is 17 and 10 years respectively, while in Mexico it is 20 years. The alternatives that, according to KPMG (2006), have the laboratories that develop and patent medicines are:

- A. Request for new patents for new applications of a drug that already exists. In this way the life of the patent is lengthened and cannot be used by generic laboratories.
- B. On patents that are about to expire, the laboratory itself can enter the generic market and compete with laboratories dedicated to this.

There is also the protection of trademarks and this consists of an authorization granted by the State to individuals the use of a denomination that distinguishes a product for commercial purposes. The right to use a trademark lasts for 10 years. The main difference between patents and trademarks is that trademarks can be renewed for equal periods indefinitely. In Mexico, the sector has to face all these problems, although some of these tend to be more acute than others due to the conditions in the country (KPMG, 2006: 5, 6).

In relation to the above it can be said that, although competition with generic drugs discourages innovation in the sector, this is not the biggest problem. The lack of compliance with the laws in our country makes way for unfair and illegal drug

competition. Mexico has the largest pharmaceutical market in Latin America, contributing 1.2% of the country's GDP in 2011 and 3.2% of manufacturing GDP in 2014 (Cofepris, 2013 and INEGI, 2017). In 2006, there were 224 drug laboratories in the country that belonged to 200 companies, of which 46 were part of corporations with a majority foreign capital (KPMG, 2006: 18, 19). Drug piracy losses in the country were around US \$ 700 million, according to the Mexican Association of Pharmaceutical Research Industries (AMECE and La Salle, 2006).

This problem undoubtedly discourages the investment of large pharmaceutical companies, but it is also a public health problem. The high costs of medicines favor the increase in the commercialization of counterfeit drugs (estimated to be about 80% from Asian countries) and expired drugs, which endangers the health of the user (KPMG, 2006: 7).

In order to combat the problem of theft and / or falsification of medicines, the government and pharmaceutical companies have taken measures ranging from satellite tracking of products to avoiding that drivers know what they carry (especially when it comes to psychotropic drugs) to inhibit the theft of the loading units. Another way to combat drug counterfeiting is to use Radio Frequency Identification (RFID). RFID is a method of remote data storage and retrieval that uses tags or RFID tags. These contain antennas that allow it to receive and respond to RF requests from an RFRD transceiver (AMECE and La Salle, 2006).

The purpose of RFID tags is to identify the product within the production and distribution process. With these labels, counterfeiting, theft, smuggling, copying, alteration and adulteration of pharmaceutical products are avoided or diminished. The cost of these RFID tags is extremely high. In the case of Mexico, pharmaceutical companies cannot sustain the cost of their use in each of their products, this would make them lose profitability. Farmacias del Ahorro is one of the main distributors in Mexico and believes that investing in the use of these RFID tags in pharmaceuticals would be a great advance for the country. It would provide greater security to the industry concerned with the problem of counterfeiting and would generate economic benefits for companies in the long term. However, there must be cooperation on the part of all the companies of the industry (AMECE and La Salle, 2006).

Although these measures seek to counteract the advance of the black market for medicines, it will not have the expected effect without the collaboration and good functioning of the institutions that the State has created for the same purpose. “The

Ministry of Health (SSA) is responsible for granting registration to medicines that they intend to produce, sell, distribute and / or dispose of' (AMECE and La Salle, 2006: 18).

The organisms that represent the industry are the National Association of Manufacturers of Medicines (ANAFAM), Canifarma, the Mexican Association of Pharmaceutical Research Industries (AMIIF) and Cofepris. In this sense the Canifarma can be considered as the main representative body of the industry since it concentrates approximately 90 percent of the companies. Among its functions is to define the general interests of the member companies (national and foreign) and create commissions or bodies necessary to create harmony between the interests of industry and the public.

Within this body operates the Council of Ethics and Transparency of the Pharmaceutical Industry in Mexico (CETIFARMA) whose purpose is to achieve the development of a socially responsible industry to contribute to the welfare of society in general. La Canifarma operates under the supervision of the Ministry of Economy (SE). Cofepris is another agency created by the government to improve the situation of the Mexican pharmaceutical industry. It is a decentralized agency of the SSA and its functions are regulation, control and health promotion, hoping to preserve the health of the Population (AMECE and La Salle, 2006 and KPMG, 2006).

To have a broader picture, a brief description of the composition of the health system in Mexico should be made. There are three sectors: private, public and social security. Within the public, the SSA is the highest authority and has under its responsibility institutes, health centers and hospitals directed primarily at the low-income population. The DIF (Integral Family Development) provides this service to children and their families who do not have social security. In this sector - social security - the Mexican Social Security Institute (IMSS) and the Institute of Social Security and Social Services of State Workers (ISSSTE) are the main providers of health services, covering 13.2 and 10.4 million people in 2006.

In the private sector, Hospital Ángeles is the group with the largest presence in the country. Finally, it is necessary to mention the importance of the distributors since the pharmaceutical companies in the country do not have their own distribution. For 2006 there were more than 100 companies dedicated to distribution. The most important were: Casa Marzam, Casa Saba, Farmacias Benavides, National Drug and Provider of Medications (KPMG, 2006).

The industry in Mexico is full of actors interested in the growth of the sector for the benefit of companies, but also of consumers. The Mexican market is regulated by a wide range of institutions that regulate the activity. However, the lack of forcefulness in applying the laws opens the door for unfair competition to undermine the competitiveness of these companies. This, as already mentioned, increases the costs of companies and inhibits investment in the country.

**Review of literature:**

This section discusses the importance of strategic alliances, the benefits of being involved in some, and, above all, the conditions that must exist for them to develop properly. On the subject of inter-organizational relationships and collaboration networks there is a wide range of literature, but here it is used only the one that allows to analyze what happens in the Mexican pharmaceutical sector.

This business sector is representative on the subject mainly for the rapid advances in technology and innovation that exist in its interior. The companies belonging to it are immersed in a dynamic of high competitiveness, but also of collaboration. The objective of these alliances is to generate joint capabilities and maintain leadership in the face of competition.

In general, "alliances are seen as a way to leverage the specific skills and competencies of companies in order to compete more effectively in the marketplace" (Rao and Reddy 1995: 502). In addition, it seeks to acquire resources and / or skills that are not possible to produce internally and when the risks of cooperation are estimated as tolerable. This type of collaboration is carried out in order to reduce the risks associated with implementing a new project, access new markets and technologies, accelerate the entry of a product to the market, take advantage of economies of scale (internal and external and pooling complementary competences).

Also, alliances facilitate complex intra- and inter-organizational coordination, resulting in a pool of trust, reciprocity, and mutual dependence. In an industry so changing in these respects, firms that enjoy an advantageous position against the competition could lose it quickly (Rao and Reddy, 1995). This is why companies are forced to enter into this dynamic of cooperation.

Likewise, the conditions that must exist for these agreements to be carried out should be mentioned. The decision to ally depends heavily on resource constraints, the position of each partner in the value chain, the level of technological sophistication

required, and previous experiences with alliances (Powell and Smith-Doerr, 1996). Other elements to be considered according to Camargo (2011) in relation to the partners of the alliance are:

- A. Shareholders' equity.
- B. Their orientation towards learning.
- C. Orientation towards the learning of the alliance.
- D. Social networking of the alliance.

However, there are barriers that inhibit the formation of alliances between companies. Among them we find: 1) lack of trust between the parties; 2) difficulty to give up control; 3) the complexity of the project as a whole and 4) differential capacity to learn new skills. With regard to this last aspect, it should be noted that the "absorptive capacity" of a company will allow it to benefit more from an alliance. The internal and external capacities are not substitutes; they can be cataloged as complementary. Thus, the first ones support the evaluation of the advances in research abroad and the second ones are a good support to be aware of what happens abroad, besides providing resources that cannot be created internally (Powell and Smith - Dererr, 1996).

In this sense, it can be affirmed that the creation of knowledge occurs in a context of community that is fluid and changing. This, in the same way, could be cataloged as a network that serves as a space for innovation and a means of access to resources that otherwise are not available. It is important for organizations to identify their position in the organization in order to know the direction in which they are headed and the role they can play (Powell and Smith-Doerr, 1996). The business alliances are then immersed in a system of networks that link them with other companies, but also within their internal organization (Castells, 2001).

Gulati (1998) defines a social network as a set of nodes (people or organizations) united by a set of social relations. It is considered that the economic actions of the members of the network are affected by the social context itself and the position of each member within the network. He adds that the generation of networks of interorganizational alliances is due to the exogenous dependence of resources that drives the companies to cooperate and the insertion in an endogenous dynamic that, in a progressive way, guides the choice of partners.

In general, networks can be considered as the links and interactions that make it possible for information and knowledge to be transferred to companies, business

chains, organizations and the institutional frameworks of each society to produce innovation and at the same time generate learning in the society. An important part of the networks between companies are the shocks, the impacts generated in the networks by the changes that affect them. An important feature of shocks is the intensity and pace of the process of change, and shocks are imposed by reforms in competitive processes and market structures (Cimoli, 2007).

Thus, a major change occurs in information and telecommunication technologies that allow companies to operate in networks more easily. For example, companies currently participate in various alliances and therefore carry out geographical movements of their research and production centers which are positioned in countries with advanced economy. In this way, information and telecommunications technologies allow the exchange of information faster and easier, although this does not necessarily imply the creation and diffusion of knowledge (Cimoli, 2007). This scenario is called technological shock. Finally, it should be noted that this whole system of exchange and production of knowledge and innovation is framed by the institutional systems that exist in a society.

The type of collaboration, as well as its intensity, is conditioned by institutions or, rather, by the institutional configuration of a society. The conceptualization of institutions describes them as the rules or norms that shape human interaction. There is also another approach that sees them as the behavior that results from the norms that society itself imposes over time (Hollingsworth, 2000 citing North, 1990 and Schotter, 1981).

Following this order of ideas, Hollingsworth (2000) proposes a multilevel institutional analysis to understand the type of innovation that emerges in each society. The first level recognizes the rules, conventions, habits and values of a society. These change slowly over time and are the ones that shape the preferences of individuals. It is said that the greater the pluralism and complexity of a society, the more ambiguity there is about the rules and norms of society.

Continuing, the second level identifies institutional arrangements. These "are involved in the coordination of the various economic agents: producers, suppliers of raw materials, knowledge, etc., raw material processors, information; workers; customers of raw materials, finished goods and information "(Hollingsworth, 2000: 605). At the next level of analysis are the institutional sectors, these include all the

organizations in a society that provide a particular service or product. This also includes education systems, businesses, financial markets, the legal system and the state.

The fourth level raises the effect that the regulatory framework has on organizations that tend to conform to institutional norms and rules. It can be seen how the changes that the organization undergoes in its structure and organizational culture as it forms the evolution of the institutional environment. Finally, the fifth and final level of analysis focuses on the results of such institutional configurations. This can be measured by the degree of innovation, education, and distribution of resources within a society compared to others (Hollingsworth, 2000).

The institutional framework can be affected by changes related to the interactions of individuals. Based on this assumption, Campbell (as quoted in Hollingsworth, 2000) considers two types of changes, the radical and the gradual. The first consists of the changes generated during the interaction of actors with different norms, such as cultures, rituals of action, etc., thus maintaining an intense relationship. The second is when there are small changes during the interaction of agents.

Finally, the institutional framework determines the variation in the innovative style of societies. By conducting an institutional analysis of a society, one can begin to understand in what type of organizations the production of certain types of knowledge is carried out and how this is related to certain types of innovation (Hollingsworth, 2000). As a consequence, it can be determined why some societies have a greater technological, innovative and economic development, and why other societies do not produce such development.

### **Empirical review:**

This section presents the different studies carried out on the pharmaceutical industry in order to contextualize it in greater detail. Orsenigo, Pammolli, & Riccaboni (2000) carried out a study on the evolution of companies in this industry based on a database created by the University of Siene that contains a sample of more than 14,000 R & D projects. Pharmaceutical companies of which 5056 are agreements and 9785 research projects represented by 2297 companies and institutions.

The classification of companies consists of 3 categories: Established firms, new biotechnology companies and institutions, and the quantity represented by each is 651, 1372 and 274 respectively (Orsenigo, Pammolli, & Riccaboni, 2000). In addition, two

types of time are considered to classify the R & D projects that are the micro level that considers the difference between the original and developed projects, while the macro level includes all new industry networks and new agreements.

As a result of this study, Orsenigo, Pammolli, & Riccaboni (2000) found that knowledge growth is positively related to the structure of the pharmaceutical network. Thus, it was identified that the organization of R & D, the patterns of division of labor and the dynamics of industry are involved in the growth of knowledge, thus generating very complex network structures. In addition, it is found that the existence of the network has correspondence with the appearance of new technologies and that the older companies enjoy greater benefits since they have known to frame the knowledge has a high level of generality.

On the other hand, Dong and Yang (2015) perform an analysis of the pharmaceutical industry of the United States of America from 4 variables that are the experience of the alliance, the knowledge network, the knowledge investment and the investment in IT of the information. The first variable has two alternatives to be measured, either by considering the number of successful alliances and the intensity of the alliance that was measured by dividing the number of successful alliances among the number of drugs approved by the Food and Drug Administration Drug Administration) in a focal year between 2003 and 2005 which are the years of analysis. The second variable is measured considering all patents available in the industry. For the third variable, the number of inventors and co-inventors in a specific year is taken into account. Finally, the investment in IT was obtained using various computer tools such as the IBM computer, non-IBM, mini-computer, PC and LAN.

The sample used by Dong and Yang was based on the public data of the US pharmaceutical industry using the SIC 2834 code from the Standard and Poor's Compustat database. The result of this research was that the intensity measures of the alliance's investors and co-inventors are significantly related to the knowledge of organizations in the pharmaceutical industry (Dong & Yang, 2015). Also the interaction between the variables of the experience in an alliance with the investment in IT demonstrated a positive relation with the creation of knowledge in the organizations.

In 2005, Gay and Dousset developed a study on the industry network in biotechnology from a static model. What characterizes the study is the type of analysis model since in other studies each particular partnership is studied. Spatial and temporal limits were considered for this study. The former is defined by data obtained from the



Security Data Company's online database of financial transactions", Thomson Financials, provided by LEREPS, University Research Center in Toulouse, France with a specialization in internet sites, new media and annual reports SEC files (Gay & Dousset, 2005). The sample consisted of 739 alliances carried out by 557 companies from the database identified as antibody-related treatments. The second limitation is the time period and for this study is from 1990 to 2004 presented in two periods of 7 years each.

Gay and Dousset (2005) found a relationship between the number of nodes, that is, the number of relationships between one company and another and the number of patents that the organization has. In this sense they deduce that intellectual property is used to describe the relationship between the intangible, the associations with the innovations of the companies. Medarex (Medx), Abgenix (Abgx) and Cambridge Antibody Technology (CAT) are the companies with the most nodes in this entry, therefore the largest generators of patents on antibodies. In addition, 50% of the companies in the study have some patent which demonstrates the strength of the companies in biotechnology to discover new drugs.

The study also points out that 5% of the companies analyzed are not related to technology and are related to another organization (Gay & Dousset, 2005). This case is interesting because these companies may be about to disappear or think of creating innovation strategies because otherwise they would die.

Gay and Dousset (2005) emphasize the fact that central nodes are limited by technological changes in the market. Such centralization of the nodes can be interpreted as an indicator of obtaining patents and dissemination of knowledge. There is also an important relationship between the number of alliances and the number of products, mainly in the seven best pharmaceutical companies in the world. Finally, it is concluded that soon the market will only be made up of innovative companies and market leaders, while small ones will have a hard time staying on.

### **Theoretical assumption:**

The institutions designed by the Mexican government adversely affect the pharmaceutical industry and do not solve the problem of access of Mexicans to medicines.

### **1. Methodology and results:**

The collection of the data of the pharmaceutical industry was carried out directly from the page of the Canifarma. Data were also obtained directly from the websites of each

of the companies registered in this chamber. In order to identify the relationships between these companies, the Ucinet and NetDraw programs were used, graphically showing the connections in the form of nodes and arcs.

The eight companies chosen to compare their activity in terms of patent application and registration were chosen randomly from the list of Canifarma members. The data of its patents were obtained from the Mexican Institute of Industrial Property (IMPI) and the United States Patent and Trademark Office (USPTO).

According to the 97 pharmacists considered to do the network analysis of the industry it was found that there is little collaboration between these as shown in Figure 1. Only pharmaceuticals Novartis, Alpharma, Glaxo, Healthcare and Aspen are distinguished by their collaborations with other companies in the industry.

The direction of the bows shows the recognition of the relationship or alliance of one company with another. While red nodes identify companies with more alliances. These companies are at the heart of the network and you can say that they are the creators of synergy in the industry. It should be mentioned that the companies that do not have a relationship with another do not appear in Figure 1.

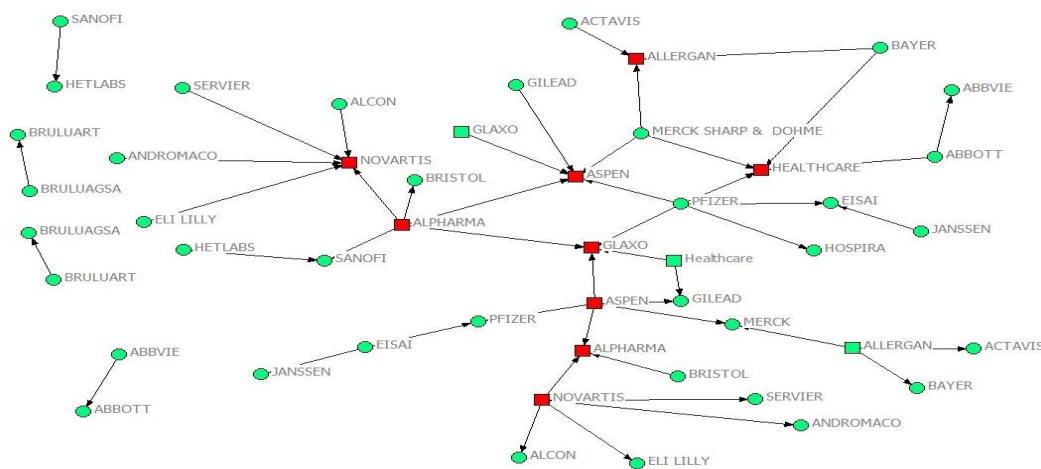


Figure 1 Network of the pharmaceutical industry in Mexico  
Source: own elaboration based on data collected from each of the websites of the pharmacies that are registered in CANIFARNA.

It should be noted that these companies are mostly foreign companies that found conditions conducive to producing in Mexico as specialized and cheap labor, especially in the Mexico City (Tejada, 2014). This is why the largest production volume in the country is in that state as shown in Figure 2.

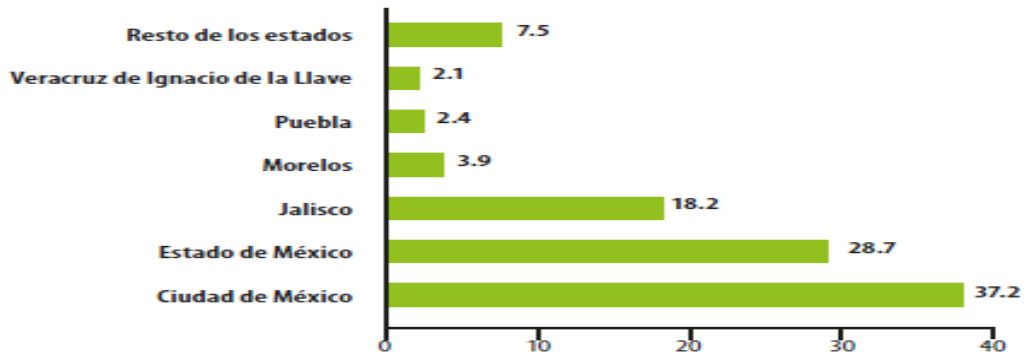


Figure 2 Production of the pharmaceutical industry by federative entity  
Source: INEGI. Economic censuses 2014.

**2. Analysis of eight companies in the sector:**

This section presents the results of the analysis of the companies Probiomed, Pfizer, Fresenius, Ferring, Genomma, Rayere, Exakta and Pro-Ventas. The purpose of this is to make a more specific description of the networks that exist between the companies of the industry. The eight companies carry out activities in the state with the largest production of medicines in the country (Mexico City), in addition Fresenius has a presence in the State of Mexico, Nuevo León, Jalisco and Aguascalientes. While Probiomed also has presence in Jalisco and Nuevo León. Pfizer in Nuevo León. Rayere in Aguascalientes, Baja California and Campeche. Exakta in Puebla (INEGI, National Statistical Directory of Economic Units, 2017).

From these companies it is deduced that there is a lack of direct relation between them and that the only connection that is presented is through the Canifarma and AMIIF business organizations.

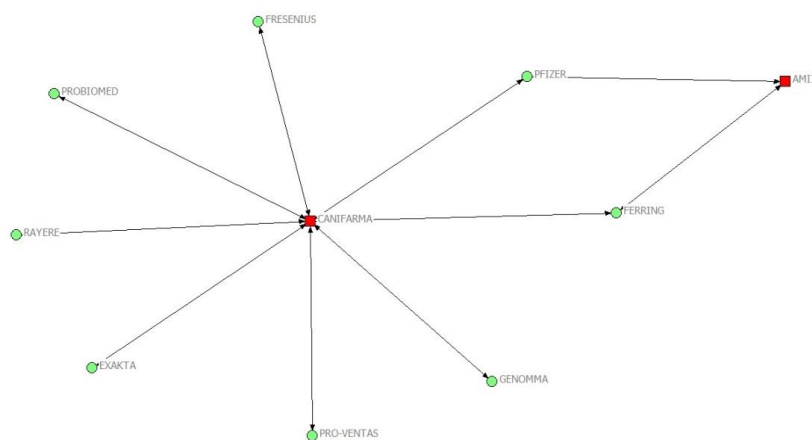


Figure 3 Network of the eight selected companies

Source: Own elaboration.

Table 1 shows the number of trademarks and patents applied for and registered with IMPIal, as well as patents registered with the USPTO. From this information the existence of the great difference between the Mexican companies (Exakta, Pro-Ventas, Rayere, Genomma and Probiomed) and the foreign companies (Pfizer, Fresenius, Ferring) in terms of Innovation and Development is considered. While Mexican companies are on a par with trademark registration, in the field of patents they are far below foreign companies. With only four records Rayere is the Mexican company with the highest number of patents registered in the IMPI. We can see that Mexican companies, besides not cooperating with others, have a low activity in the production of patents.

**Conclusions and recommendations:**

The pharmaceutical industry in Mexico is one of the main generators of income that attract foreign investment. The main cause of the investment decision is based on the quality of the labor that can be obtained in the country at a relatively low cost, mainly in Mexico City.

However, the problem of insecurity in the country is decisive for reducing the investment incentive in Mexico. Problems such as theft, piracy, adulteration, smuggling and government inefficiency to punish these acts are the main ones. It is therefore necessary to consider reforming the institutional framework in such a way as to punish violators heavily in order to generate confidence in investors.

Table 1 Trademarks and patents registered

<b>Pfizer, S.A. DE C.V. (PHAR MACIA &amp; UPJHO N/WYE TH, S. DE R.L. DE C.V.)</b>	<b>Pha rma cos Exa kta S.A. de C.V.</b>	<b>PR O- VE NT AS, S.A. DE C.V .</b>	<b>PROB IOME D, S.A. DE C.V.</b>	<b>FARMA CÉUTI COS RAYER E, S.A.</b>	<b>FER RIN G, S.A. DE C.V.</b>	<b>FRE SENI US KAB I MÉX ICO, S.A. DE C.V.</b>	<b>GENO MMA LABO RATO RIES MÉXIC O, S.A. DE C.V.</b>
---	---	--	--	--	--	--	--

<b>IMPI</b>								
<b>Number of trademarks</b>	2598	130	18	177	111	76	122	46
<b>Number of patent applications</b>	2013	5	0	1	5	74	50	0
<b>Number of patents</b>	1582	0	0	0	4	45	41	0
<b>Patents in medicine</b>	152	0	0	0	0	0	0	0
<b>USPTO</b>								
<b>Number of patents</b>	4047	0	0	0	0	133	716	0

Source: own elaboration based on IMPI and USPTO data.

The Mexican government must build a regulatory framework that encourages the production of medicines to reduce its price in the market and that families have greater access to them. In this sense, designing the regulatory framework to restrict similar and OTC can be a viable option. This could prevent people from self-medication or low-quality medicines.

It should also consider promoting partnerships between pharmacists, whether through agencies, programs, conventions, etc. Allowing the creation of knowledge and innovations in an accelerated way. The culture of constant innovation must persist since it is the only way for companies to remain in the pharmaceutical industry, which will be reflected in the increase of applications for patents and trademarks.

#### References:

- 1) AMECE, & La Salle. (07 de 2006). Diagnóstico del sector farmacéutico en México, para la aplicación de la tecnología de identificación por Radio Frecuencia (RFID) en los medicamentos. México.
- 2) Camargo, F. (2011). Factores de éxito de las alianzas estratégicas: El caso de las empresas integradoras mexicanas. *Estudios Gerenciales*, 27(120), 105-126.

- 3) Castells, M. (2001). *La ciudad de la Nueva Economía*. Recuperado el 11 de 05 de 2017, de <http://www.redalyc.org/articulo.oa?id=11202708>
- 4) Cimoli, M. (2007). Evaluación de un programa de innovación y sistemas de producción en América Latina: Estudio sobre la dinámica de redes. *CEPAL-Serie desarrollo productivo*(184), 1-42.
- 5) COFEPRIS. (2013). *Gestión de la salud pública en México*. Secretaría de salud, México.
- 6) Dong, J. Q., & Yang, C.-H. (2015). Information technology and organizational learning in knowledge alliances and networks: Evidence from U.S. pharmaceutical industry. *Information & Management*, 52, 111-122.
- 7) Exakta. (2017). *Exakta*. Recuperado el 11 de 04 de 2017, de <http://www.exakta.mx/>
- 8) Ferring. (2017). *Ferring*. Recuperado el 11 de 04 de 2017, de <http://ferring.com.mx/>
- 9) Fresenius. (2017). *Fresenius*. Recuperado el 11 de 04 de 2017, de <http://www.fresenius-kabi.com.mx/portal/Portal.nsf?Open>
- 10) Gay, B., & Dousset, B. (2005). Innovation and network structural dynamics: Study of the alliance network of a major sector of the biotechnology industry. *Science Direct*, 34, 1457-1475.
- 11) GenommaLab. (2017). *Genomma Laboratories*. Recuperado el 11 de 04 de 2017, de <http://www.genommalab.com/es/index.html>
- 12) Gulati, R. (1998). ALLIANCES AND NETWORKS. *Strategic Management Journal*, 19, 293-317.
- 13) Hollingsworth, R. (2000). Doing institutional analysis: implications for the study of innovations. *Review of International Political Economy*, 7(4), 595-644.
- 14) IMPI. (2017). *Instituto Mexicano de la Propiedad Industrial*. Recuperado el 11 de 04 de 2017, de <http://www.impi.gob.mx/>
- 15) INEGI. (2016). *Estadísticas a propósito de... la industria farmacéutica*. Instituto Nacional de Estadística y Geografía, Aguascalientes.
- 16) INEGI. (2017). *Directorio Estadístico Nacional de Unidades Económicas*. Recuperado el 24 de 04 de 2017, de <http://www.beta.inegi.org.mx/app/mapa/denue/>
- 17) KPMG. (2006). *La Industria Farmacéutica en México*. México.
- 18) Orsenigo, L., Pammolli, F., & Riccaboni, M. (2000). Technological change and network dynamics lessons from the pharmaceutical industry. *Research policy*, 485-508.

- 19) Pfizer. (2017). *Pfizer*. Recuperado el 11 de 04 de 2017, de <https://www.pfizer.com.mx/>
- 20) Powell, W. W., Koput, K., & Smith-Doerr, L. (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, 14(1), 116-145.
- 21) Probiomed. (2017). *Probiomed*. Recuperado el 11 de 04 de 2017, de <http://www.probiomed.com.mx/>
- 22) Proventas. (2017). *Proventas*. Recuperado el 11 de 04 de 2017, de <http://www.proventas.com.mx/>
- 23) Rao, B. P., & Reddy, S. (1995). A Dynamic Approach to the Analysis of Strategic Alliances. *International Business Review*, 4(4), 499-518.
- 24) Rayere. (2017). *Rayere*. Recuperado el 11 de 04 de 2017, de [http://www.rayere.com.mx/fr\\_frameset.htm](http://www.rayere.com.mx/fr_frameset.htm)
- 25) USPTO. (2017). *United States Patent and Trademark Office*. Recuperado el 11 de 05 de 2017, de <http://www.uspto.gov/>