Puebla Competitiveness Report

(Work in Process)

Construction Cluster in Puebla

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April 2012

Content

- Growth of Construction Industry in Mexico
- Contribution to GDP by suppliers
- Diamond National Construction
- Construction industry in Puebla
- Diamond´s Construction in Puebla
- Housing industry in Puebla
- Diamond housing in Puebla
- Five forces analysis
- Value Chain
- Cluster Map
- Findings of the current situation
- Value proposition
- Strategic Projects

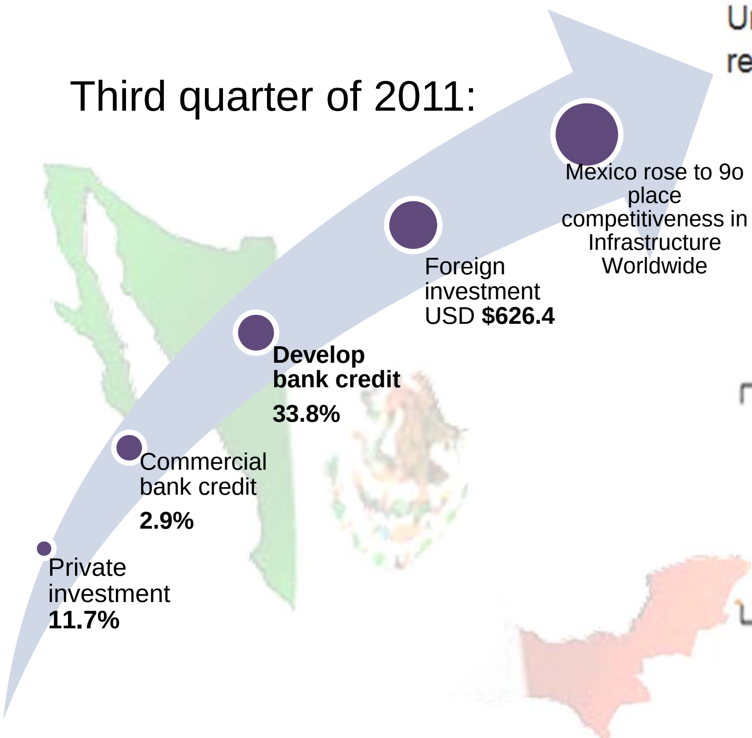
Growth of Construction Industry in Mexico

2010 0.0%

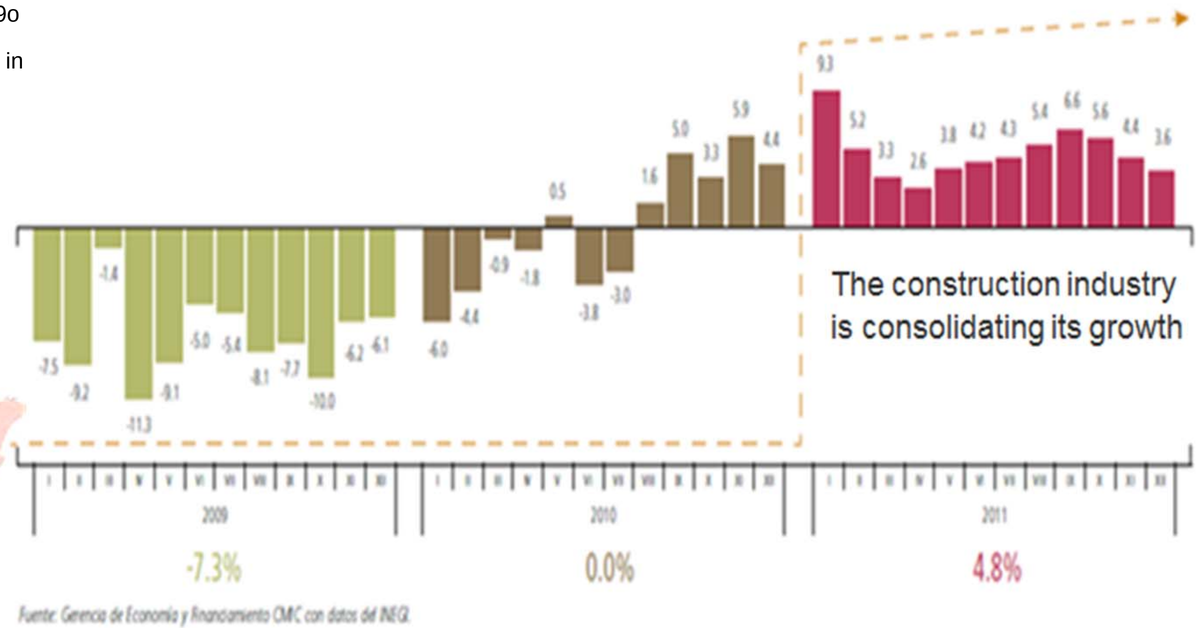
2011 GDP growth 3.9%

GDP Construction growth 4.8%

Third quarter of 2011:

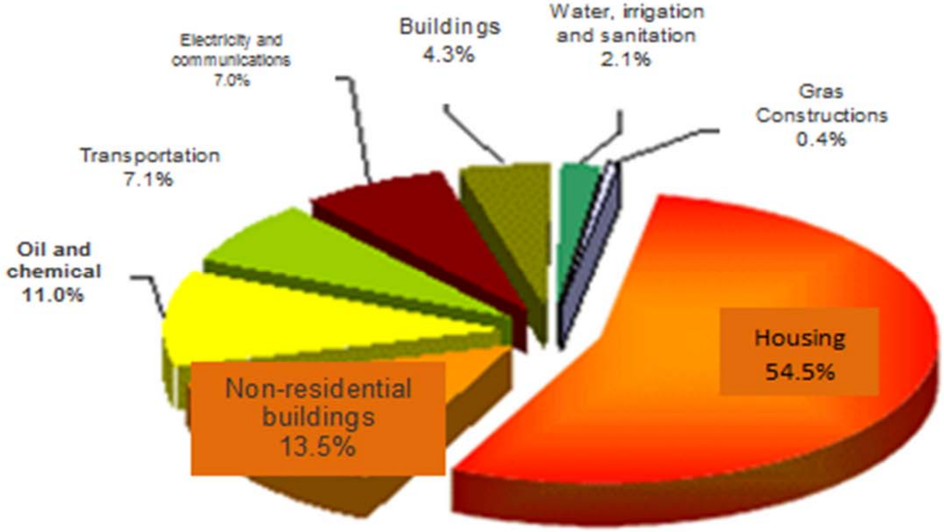


Unlike the 2009 (-7.3%) and the first half of 2010 (-2.8%), the construction industry registered an annual growth of 4.8% in 2011.



Growth of Construction Industry in Mexico

GDP composition construction



Private Sector: Shelter and non-residential buildings
Public sector: Concepts *

Fuente: INEGI Cuentas Nacionales

Construction jobs in Mexico

ITEM	2009		2010		2011		2012	
	POPULATION	VARIATION %	POPULATION	VARATION%	POPULATION	VARIATION %	POPULATION	VARATION %
TOTAL	43,678,103	0.4	44,411,354	1.7	45,021,681	1.1	45,751,549	1.6
CONSTRUCTION	3,453,573	-3.8	3,458,173	0.1	3,548,713	3.5	3,687,560	3.9

Source: CMIC, vol. I, 2011. ENEC data.

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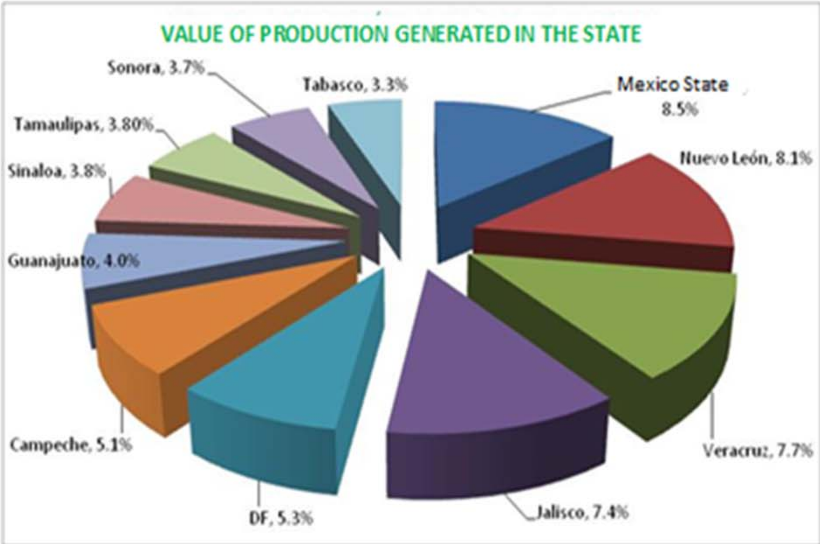
Contribution to GDP by suppliers

Period	Value of production generated by the companies manufacturing quarry stone products (thousands of pesos)
2007	$182,254.67
2008	$152,072.50
2009	$110,383.25
2010	$113,514.75
2011	$115,666.58
2012	$69,839.00



Source: CMIC, vol. I, 2011

Period	Output value generated by companies in non-refractory brick (thousands of pesos)
2007	$141,433.25
2008	$124,421.25
2009	$108,928.75
2010	$113,386.50
2011	$118,470.00
2012	$101,409.00

PERIOD	Value of production generated by the companies manufacturing tubes and concrete and cement blocks (thousands of pesos)
2007	$293,299.83
2008	$280,224.83
2009	$238,241.42
2010	$243,917.75
2011	$257,065.17
2012	$271,737.00

Source: INEGI, National Institute of Statistics and Geography, 2011.

Sintonía

Diamond National Construction

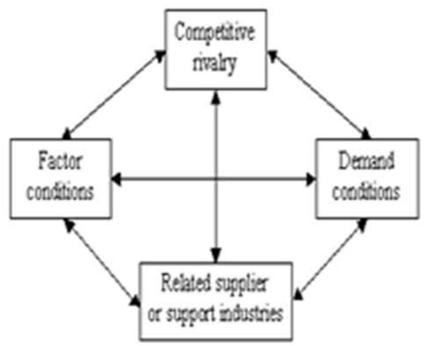
DIAMOND NATIONAL CONSTRUCTION

Chance

The NAFTA encourages technology transfer

Diverse and complex activities
Many micro and small enterprises, few large companies
There is no compromise with quality guarantees
Competition through cost
Low innovation in building income housing
Competition with companies from other states
Lack of cooperation from the cameras of the construction
Consolidation of the national industry

HR: Cheap manpower and disqualified
Specialized knowledge
Physical Resources: many natural resources, climate, population growth
Knowledge resources: no communication with educational institutions to develop the cluster. Many low-quality universities
Capital resources: no D+I institutions
Infrastructure: roads, physical facilities (office, retail outlet, shops and warehouses) own units for transfer of materials and equipment.



Population growth affects the demand
Demand depends on economic cycles
The government sacrifice quality for cost
Society wants quality
There is great demand
Higher sales price versus quality

Government

Institutions that help to licensing and permits
Financial institutions that provide credit
Universities offering degrees related to the cluster
Associations (CANADEVI, CMIC)

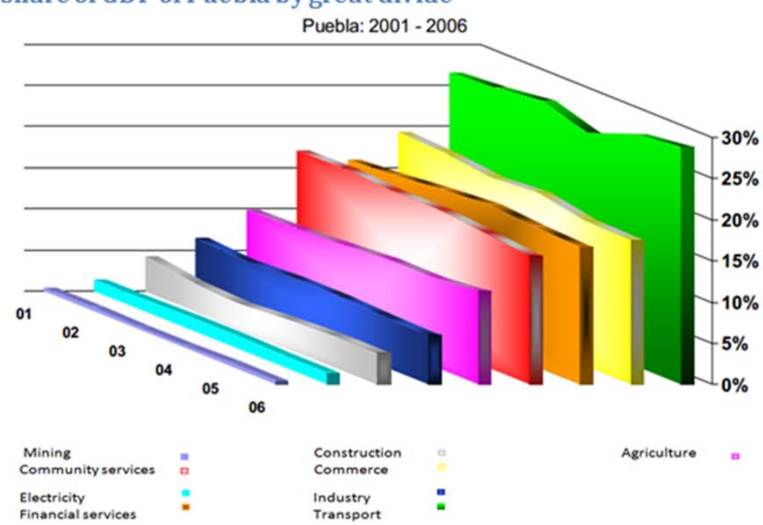
Lack of planning
Lack of transparency in bidding processes
Corruption
Lack of updated laws and rules
Release from competition

Source: Own design, Information: supported by interviews with CMIC, and Ministry of Infrastructure CANADEVI Puebla

Construction industry in Puebla

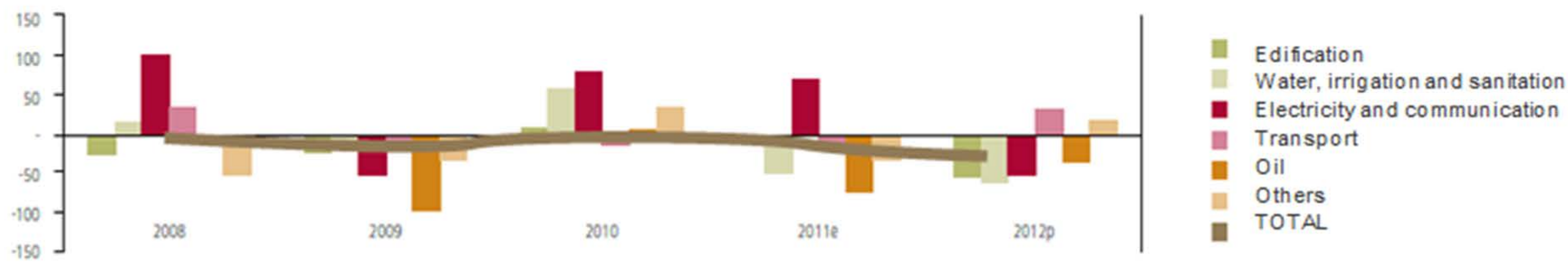
GDP	423,878; 3.4% national
Average salary of trading on the IMSS	219.4
% of GDP to Construction	3.6
Economic Structure	20,709
Tertiary activities (Construction)	62%
Average salary of contribution for construction	179.9

Source: INEGI, 2011.



Source: INEGI

Gross value of construction (real variation %)



Fuente: Gerencia de Economía y Financiamiento CMIC, con datos de la Encuesta Nacional de Empresas Constructoras (ENEC).
p. Pronósticos de la Gerencia de Economía y Financiamiento CMIC.

Construction industry in Puebla

Construction employment in Puebla

	JOBS							
	Historical evolution				Estimation		Forecast	
Concept	2009		2010		2011		2012	
	Population	Var %	Population	Var %	Population	Var %	Population	Var %
TOTAL	2,246,740	0	2,300,811	0	2,321,519	0.9	2,370,270	2.1
CONSTRUCTION	162,515	1.5	168,654	1.5	155,499	-7.8	151,923	-2.3

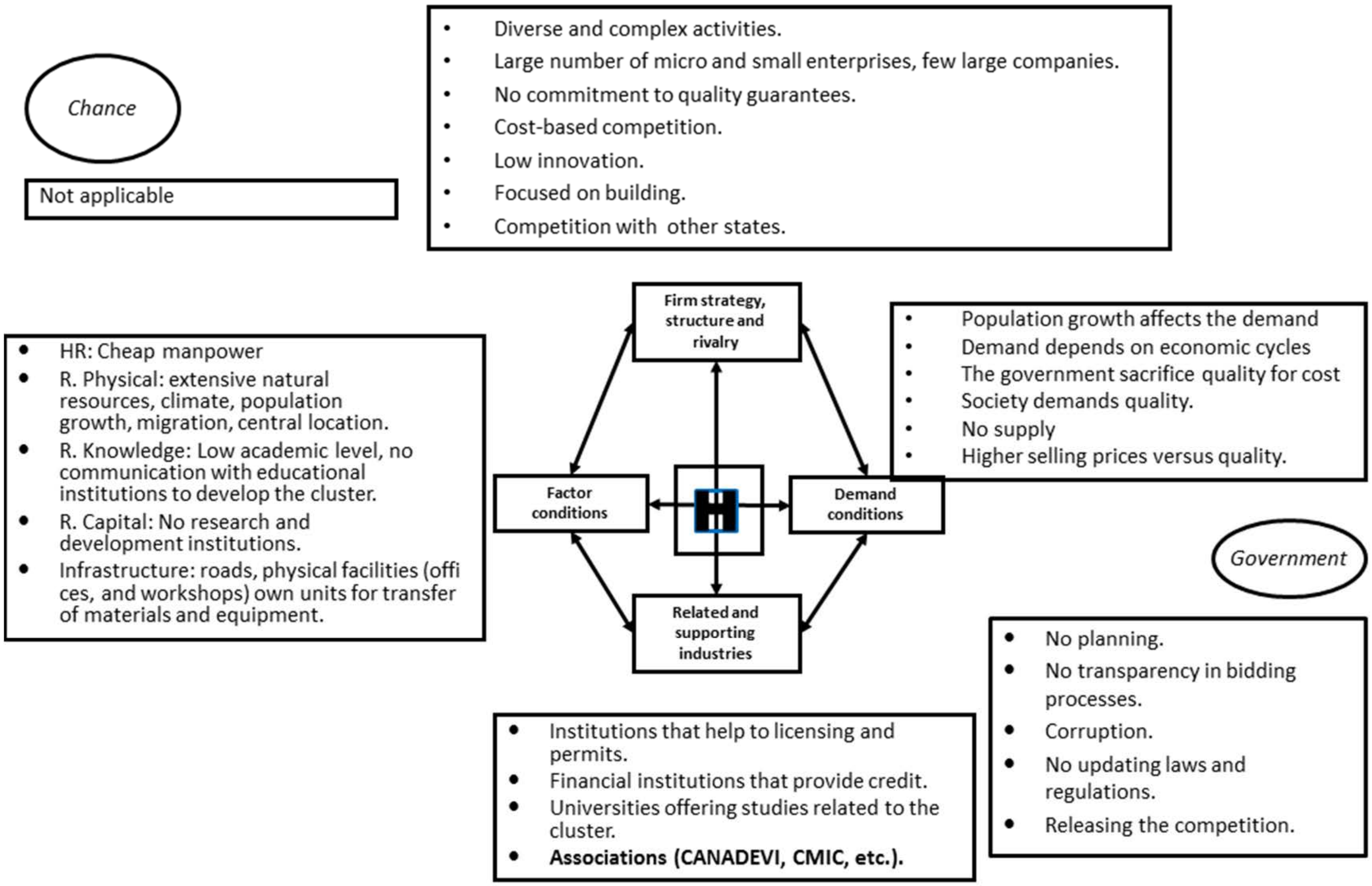
Source: Gerencia de Economía y Financiamiento CMIC, con datos de la ENCE.
e. Estimaciones dela Gerencia de Economía y Financiamiento CMIC.

Breakdown of GDP construction in Puebla

Kind of construction	**GDP (thousands of pesos)**		**%**
Single family dwelling	$	840,878	28.67
Hospitals and clinics	$	643,619	21.94
Highways, roads and paths	$	444,386	15.15
Multifamily housing	$	260,900	8.89
Infrastructure works and road	$	231,040	7.88
Commercial and service buildings	$	106,695	3.64
Drinking water systems	$	71,461	2.44
Office buildings and other	$	71,080	2.42
Water treatment and sanitation	$	60,237	2.05
Other works	$	51,081	1.74
General industrial buildings	$	38,521	1.31
Telephone and telegraph facilities	$	30,746	1.05
Dams	$	29,963	1.02
Schools	$	29,210	1
Ancillary works	$	23,430	0.8

Diamond´s Construction in Puebla

Porter´s diamond: The construction in Puebla



Source: Own design, Information: supported by interviews with CMIC, and Ministry of Infrastructure CANADEVI Puebla

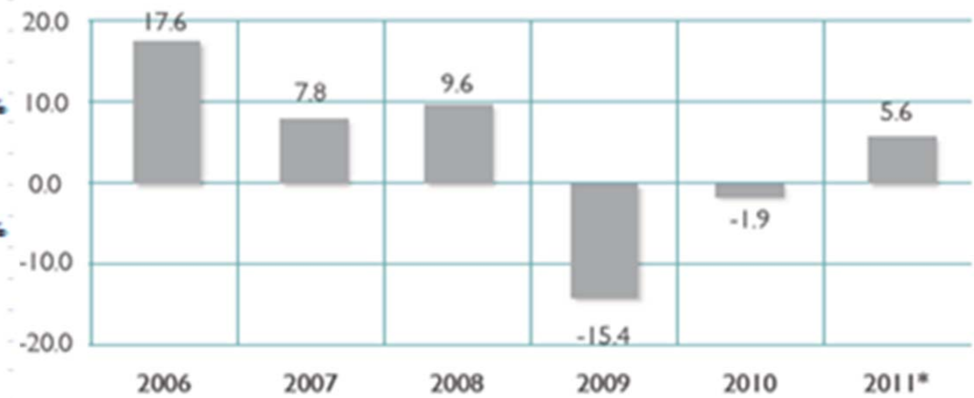
Source: Estimate Numbers, INEGI, 2010

Housing industry in Puebla

Demand for housing in Puebla

Federative Entity	Housing Demand	
Jalisco	102,292	
Veracruz	100,955	
Estado de México	92,151	
Baja California	71,793	
Coahuila	59,143	60.0%
Distrito Federal	59,079	
Puebla	45,679	
Oaxaca	45,035	
Nuevo León	43,516	
Colima	42,989	
Guanajuato	39,418	
Hidalgo	37,780	
Michoacán	35,305	15.8%
Tamaulipas	32,884	
Tabasco	30,987	
Sonora	28,131	
San Luis Potosí	22,978	6.7%
Chiapas	22,947	
Guerrero	19,051	
Chihuahua	18,591	
Morelos	18,344	
Querétaro	16,856	
Durango	16,344	14.4%
Quintana Roo	15,815	
Yucatán	14,777	
Zacatecas	14,707	
Sinaloa	13,105	
Campeche	11,967	
Nayarit	9,030	
Baja California Sur	9,029	3.1%
Aguascalientes	8,316	
Tlaxcala	7,680	
Nacional	**1,106,674**	

GDP of the home (2006-2011)
(Annual percentage change)



Source: Estimate Numbers, INEGI, 2010

Sintonía

Diamond housing in Puebla

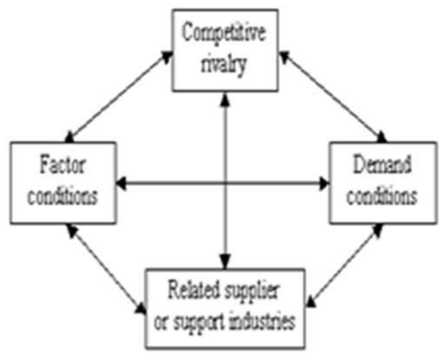
DIAMOND HOUSING IN PUEBLA

Chance

Not applicable

- Diverse and complex activities
- Many micro and small enterprises, few large companies
- There is no compromise with quality guarantees
- Competition through cost
- Low innovation in building income housing
- Competition with companies from other states
- Lack of cooperation from the cameras of the construction

- HR: Cheap manpower
- Specialized knowledge
- Physical Resources: many natural resources, climate, population growth, migration, central location
- Knowledge resources: no communication with educational institutions to develop the cluster.
- Many low-quality universities
- Capital resources: no D+I institutions
- Infrastructure: roads, physical facilities (office, retail outlet, shops and warehouses) own units for transfer of materials and equipment. Local suppliers, no public services.



Increase in population growth
Demand depends on economic cycles
The government sacrificing quality for cost
Society demands quality and building surface depending on the socioeconomic
Expensive sales price versus quality
Expensive prices for sale of land
Infrastructure is adequate to the demand
Student growth affects the demand
Customers are susceptible to location, time, price and quality
There is unequal distribution of housing

Government

Institutions that help to licensing and permits
Financial institutions that provide credit (INFONAVIT, FOVISSSTE, SEDESOL, and BANKS)
Cameras of the construction industry
Universities offering degrees related to the cluster

Lack of planning
Lack of transparency in bidding processes
Corruption
Lack of updated laws and rules
Release from competition
There are poor credit processes

Source: Own design, Information: supported by interviews with CMIC, and Ministry of Infrastructure CANADEVI Puebla

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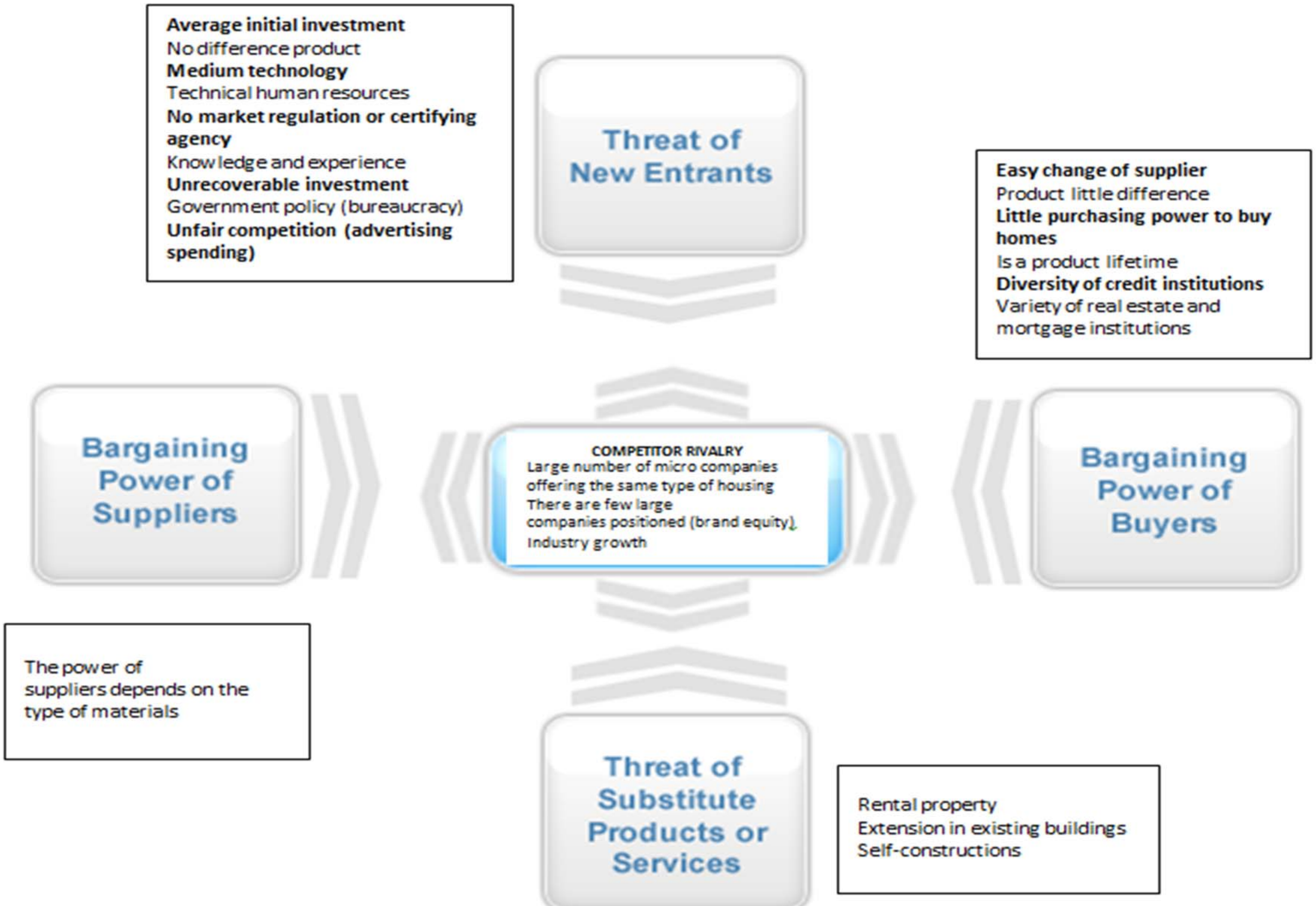
Five forces analysis



Source: Own design

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Value Chain

Firm Infrastructure				
Trained technicians Administration Trained administrative Payment to suppliers Payment to informal payroll Banks	Training to direct manpower or selecting of trained manpower	Trained technical personnel to severances to work	Training and sales training	Training personnel
Unit prices purchases	Constructive process definition Constructor management Critical path method, programming	Settlement accounts of the construction	Market research	
Suppliers of quality and price Contracts and work orders at the best price and quality	Provide of: Machinery Equipment Materials	Delivery of finish product Delivery to the sales department	Recruitment of specialized agencies	Recruitment of notaries Contract consumer credit institutions
Manpower Materials storage systems, tools and equipment Functional organization of labor by crews Collection system through estimation or invoices Credit systems Contract of credits	Application of the construction process A) Architectural * Preliminaries * Length and leveling *Education * Masonry * Finishes * Installations -Electrical -Sanitary -Hydraulic -Gas -Specials -Gardening -Blacksmith -Carpentry -Glassware -Laboratory test B) Urbanization b1) Infrastructure b2) Equipment	Credit systems and links with banks Formailization Price fixing	Sales strategy Client study for credit allocation Insurance Firms Brokers, publicists and sellers Market strategy	Formailization Credit allocation Attention to buyers and various claims

Source: Mexican enterprise information system 2009, www.siem.gob.mx. Information obtained by interview with Mr. Fernando Argueta, CMIC Puebla manager

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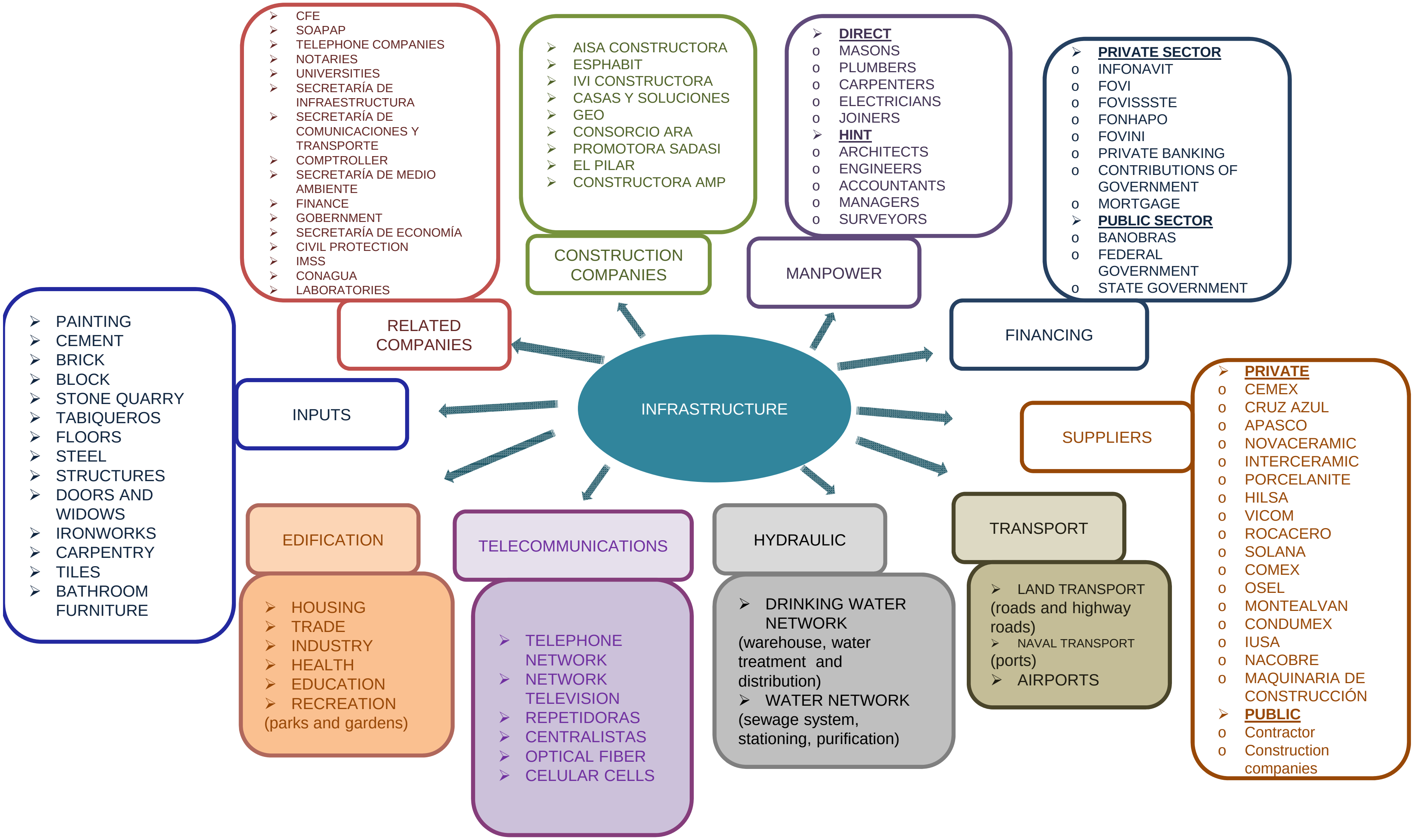
Cluster Map



Source: Own design, Information: supported by interviews with CMIC, and Ministry of Infrastructure CANADEVI Puebla

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Findings of the current situation

Actual construction growth in the country and in Puebla by the combination of macroeconomic stability, access to financing and demographic trends. However, such housing does not improve the quality of life. The causes are poor design, poor location, poor access to services.

The quality of housing policies and urban development created by the government determines the type of city in the future. The government should focus on quality and dynamics of the city to favorable economic conditions of both the city and of the inhabitants.

The obsolete institutional architecture that governs the city, including the limited capacity of local governments to develop a metropolitan vision beyond their limits.

The scarcity of available land and close to the urban area should develop easily. Most have less surface area available, which makes buying and selling land and leads to those seeking to acquire land to do so in increasingly remote areas to urban sprawl.

It is necessary that the government undertake a comprehensive regulatory framework that promotes the sustainable development of housing and, especially, its correct application. The government should provide basic services to the entire population and the challenges they face to provide them in the future.

Access problems in some segments of the population of low-income financing schemes, and lack of access to legal protection of their property. The most direct consequence of this is the persistence of high levels of irregular urban housing.

The incipient development of a policy to harmonize housing development with other sectors such as employment, education, etc.., Reducing the need for people to move and therefore avoids the problems associated with this.

Value proposition

- Implement all policy planning and management at Puebla, from spatial planning to investment in infrastructure and operation of public services.

- Create inter-Agency: A real managerial autonomy to make decisions with technical criteria rather than political. Own budget and transparent. A clear mandate for budgetary autonomy and quality service. The obligation to produce and publish indicators of administration.

- Provide more incentives for coordination among municipalities: increasing the resources available in the funds and prioritize state and private funding and advice to projects that contribute to cluster growth.

- Develop a growth strategy that seeks to strengthen the inner city areas, contributing to increased vertical construction.

- Apply financial and fiscal instruments so as to "reward" the construction of housing in the desired areas.

- It is essential that the strategy is guided by an Urban Development Plan and is implemented by a technical body, autonomous and that has enfranchised and indicators of short, medium and long term, to assess whether it is necessary to reinforce or modify policies urban development.

Source: Interview with CANADEVI Puebla

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Value proposition

- Bringing housing for employees, schools and services to reduce transportation needs.

• Gives more tools to housing applicants to make better decisions. Many times people buy a home without having sufficient information from what they are buying, particularly the implications in your life. To minimize the "bad" purchase decisions and increase the bargaining power of housing applicants, it takes two actions:

- Further develop information tools to the home buyer and disseminate them properly.
- Allow access to more than once a loan from Infonavit to increase the bargaining power of buyers.

Strategic Projects

Creating a research and development center with private companies and government support

Create an organization certificate that guarantees the quality of housing construction companies

Partnership with institutions of higher education
* Plans related to the sector to contribute to the development needs of the cluster

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