

Site selection process: intel, latin america



**ASSIGN
BUSTER**

Intel is still one of the main players in the semiconductor industry since introducing microprocessors. Its dominant role is, of course, on the one hand due to its first mover advantage but on the other hand mostly due to its high investments in R&D which enables Intel to launch constantly improved microprocessors. However if Intel wants to retain its competitive advantage and its high R&D spending, it has to build plants outside the United States in order to save costs. In 1996 Intel's portfolio of international production plants consists of sites in Israel, Ireland, China and the Philippines, in order to reduce the risk of only investing heavily in one region and corresponding to this to diversify. Intel considers Latin America as the next site location because " the region offers relatively low labor costs as well as logistical advantages for exporting to the United States or Europe" Thus the factory is planned to be conducted as an offshore plant. The case study about Intel's Site Selection Decision in Latin America shows clearly that the process of international site selection is associated with a lot of different methods, stages of countries' analysis and evaluations. But all these are essential and necessary in order to invest in the right location and gain sustainable and competitive advantages. In the following our group is going to take the position of Ted Telford, the only full-time member of Intel Corporation's worldwide site selection team, to recommend Intel's headquarter, where to build the assembly and testing facility in Latin America. This includes a definition of Intel's site selection criteria, the actual site selection process and a recommendation for the future site selection process.

II. Site Selection Process

The decision for an international production site must be well considered because it is a noticeable investment which sometimes even decides about the company's future. Therefore every site selection process should always start with the definition of conditions on which the countries are evaluated and compared with each other. Furthermore the defined criteria should be ranked according to the importance for the company.

1. Key Factor Analysis

For a highly systematic site selection process, Intel was considering a few concrete factors following. In an article, Ted Telford indicated these kinds of elements as central concerns.

Political and economic stability

Labor unions and labor regulations

Infrastructure (e. g. transportation infrastructure and costs – roads and airports only, the availability and reliability of the electrical power supply, etc)

Government support (e. g. the government's corporate taxation rates, tax incentives)

Availability of technical personnel and engineers to staff the proposed plant

Graping cost advantage, quality management, and superior level of technology over competitors, promising site was asked to relatively fulfill

whole factors. We summarized how those factors would influence on achieving Intel's goals.

Political and economic stability

From the past, the reason why Intel had hesitated to invest in Latin America was that there was political and economic uncertainties. Under the political uncertainty, the main concerns are the risk of radical changes of economic policy, laws, and regulations, and the security issues. Since promising manufacturing facilities will play crucial roles at least for decades, those probabilities of obscure changes will be likely to be negative for Intel. The way to identifying the political issues could be to scrutinize the personality and trend of president, political parties, current political issues, the process of changes of regime or government, national perception in terms of politics, etc. When it comes to security problems, sometimes, hijacking happens in Mexico, therefore, Intel should be ready for safety plans as well as contingency plans. Economic stabilities can be referred as two general view points; one is the condition of economy, the other is the capability of dealing with global companies. For defining each effect, Intel might conduct several studies such as monitoring macro/micro economy index, other MNEs' business conditions, interviewing with related involvers, and so forth. Similar with the political stability,

Labor unions and labor regulations

Labor issues could be the most important factor to Intel since Intel's promising production facilities won't do only product, it will go with the processes of R&D and testing, which has heavily dependency on human

<https://assignbuster.com/site-selection-process-intel-latin-america/>

resources. What Intel has to consider is 1) whether or not be being labor unions which Intel officially prohibits, 2) labor costs, 3) relationship and culture between labor and management, 4) related government regulations, and so forth. Likewise, labor issues should be handled with a long-term view point. Intel should judge each issue with a certain criteria they decided. For example, Intel will be able to classify things whether or not they can convert current situations into revised circumstances which are favorable, profitable, and feasible to them. When it comes to labor unions, we believe the culture and custom of labor unions will not be easy to be modified by only one global company's effort. It is a national issue. To more accurate evaluation and assessment, planning a given period time to grab must-achieved goals precisely will be helpful. On the way to changing circumstances, collaboration with labor unions, aid to reform labor systems, and so on can be considered for Intel.

Infrastructure

According to the case, in terms of infrastructure, Intel was more focusing on transportation infrastructure and costs and electrical power supply. All materials and components are shipped by airplane so that Intel was asked to insure sufficient daily flights and related facilities such as airports, appropriate plane schedules, and so on. After unloading them from airplane, those are shipped by trucks on the road. That's why air transport and ground transport, both of them are very essential for Intel. We think Intel was thinking more about the infrastructure (e. g. airport, roads, etc) rather than operating costs (e. g. transportation fees, delivery agreements, etc.) The electrical power supply is directly linked to continuous well manufacture. If

<https://assignbuster.com/site-selection-process-intel-latin-america/>

we concern the situation that product lines are stopped due to lack of the electrical power supply, it will be great damage to Intel. Since most Latin American countries are well known for an abundant supply of Natural resources, if Intel tries to go into a country which does not have resources, the cost of electrical supply could be a sensitive matter.

Government support

In our case, each nation's government offered diverse incentives to Intel such as overall or partial taxation for a limited time, free land, revised, created, or removed regulations (e. g. FDI rules, interest rates for MNEs), other well business conditions, and so on. What Intel should make sure is 1) given proposals are suitable and how affects to Intel, which means Intel should choose what they must take or not, 2) whether or not those government will keep those agreements, and 3) government's willingness to support Intel. We suggest, although exemption from taxation is good, Intel calculate additional costs as well. Pursuing only cut down the tax might not do trade-off with other costs we mentioned before.

Availability of technical personnel and engineers to staff the proposed plant

As we mentioned before why human resources are important for Intel, how Intel hires local employees having requisite technical skills, not global ones, is a critical matter. Indeed, some countries had had already retain certified skilled employees, the others had not. No matter what those countries had, it has to be also handled within long-term perspective. If Intel can foster required employees in a short period, they do not need to look for those employees at the phase of site selection. What Intel has to consider is 1) the <https://assignbuster.com/site-selection-process-intel-latin-america/>

number of existing requisite employees, 2) the salary layer of relevant employees in each countries, 3) education system, 4) government support, 5) language skills, and so on. On the way to changing circumstances, collaboration with universities, aid to reform education system, and so on can be considered for Intel.

2. Additional research

The intention to build a plant in Latin America means at the same time that Intel has to consider 20 different countries and scan their potential. Although the desk research add up to Mexico, Chile, Brazil and Costa Rica, our group decided to investigate a little bit broader and found Argentina which also seems to be promising.

2. 1. Columbia Colombian government in the last 50 years has stuck to the fight against armed forces guerrilla. Activities of the late 90s, armed guerrilla forces from areas enlarged a dangerous situation BOGOTA. Colombia faced serious difficulties in economy, because the political confidence of government is significantly weakened. 1998-2002 years FARC and the government initiated peace talks as a condition of about 51, 000 square km of land was worth from the government of President Pastrana had ceded. Ceded to the FARC in Sanya on safe-heaven, the massive expansion of drug trafficking and stockpiling weapons and food, and, taking advantage of the region as a base for kidnapping negotiations began. For the mid-2000s, the guerrilla forces as a base for mountain and rural areas, and the pattern looks back, but the focus at all without damage, and secured with large-scale drug trafficking to fund the purchase and are armed with latest weapons in the future a considerable period. It is not easy to combat guerrilla forces seems

<https://assignbuster.com/site-selection-process-intel-latin-america/>

to be. Global political instability of these major investment firms seem to act as a negative incentive. The Colombian government has maintained a relatively complex wage system. Recently the government ensures labor market flexibility, to simplify the wage layer, the regular work hours and job flexibility are making the shift system. Colombian Constitution, all workers of their right to freedom of association and collective bargaining is allowed, but not the labor union and does not impose obligations. Just the meantime, the Colombian government implicitly has conducted anti-union policies, which the main union leaders behind the assassination are known. The last union leader killed in Colombia since 1986 only about 3, 800 people, the union that the crackdown on leftist guerrillas to ignore this hit show was given help. Foreign investors are interested primarily in the areas of Bogota, Medellin's. Construction of infrastructure for foreign investment here can be called positive. Bogota is located in the inland in the center, all major land via roads may have been. Also located on the outskirts of Bogota's El Dorado airport in Colombia as a major international airport to connect the major foreign cities are served by regular airlines. The largest industrial city of Medellin in Colombia than in Bogota is located closer to the coast. Medellin is passed to the main land transport, this is a direct connection to the Buenaventura port and railway has been. Medellin is close to the Olaya airport and Rionegro(free trade zone) remains near the Jose Maria Cordoba Airport, so foreign companies will act as a positive investment.

The Colombian government on foreign investment and national treatment principles are stated. The Colombian government was set up specifically for free-trade zone, 1) Bogota, 2) Rionegro (Medellin), 3) Pacific (Cali), 4) La

Gandelaria (Cartagena), 5) Quindio, 6) Santa Marta, 7) Cucuta, 8) Barranquilla, 9) Cartagena, 10) Palmaseca (Cali) and 10 are installed in 10 locations. About FTZ companies have been granted tax incentives to gammyeondeung. Especially in the field of tax Income deductible expenditures, Exempt Income, Tax Discount offers various incentives to foreign companies are. These incentvses will act as a positive element to INTEL.

The Colombbian government continually invests in the government budget for education and human resources. Approximately 2. 5%of GDP in 1980 invested in education, but about 4 percent of GDP invested in 2003. The rate of education spending is higher. However, the education system is a centralized operation, while the quality of rural teachers and teaching facilities are very poor. Yet the supply of technical manpower is insufficient. Foreign companies committed to technical training for local workers.

Final Evaluation

Nation

Politic &

Economy

Labor

Infrastructure

Government

Employees

Colombia

Unacceptable

Unacceptable

Acceptable

Acceptable

Unacceptable

2. 2. Argentina

Argentina, for decades a political and economic instability has had. First, politically 50-60's former President Juan Peron of Argentina's populist policies and leaking phenomena caused by stigma, which Peron government policies that distort the market economy was awful. After the left parties and right-wing political parties, political parties opposing the military coup and coming into power repeated several times and was exposed to political instability. Coup d'etat, armed violence, social revolution and political reform had been through countless liberal, corporatist. Populist, anarchist, socialist, <https://assignbuster.com/site-selection-process-intel-latin-america/>

communist revolutionary, totalitarian, neo-liberal ideologies of the various chapters of the experiment may be faced with a turbulent history is not. The military coup was put through several times, especially the economic crisis experienced in 2001, three presidents, including the tremendous changes that had to suffer political instability. Fortunately, twists and turns at the end of 2003 for the new government took office kireucheunereu Nestor was to adjust the national debt, get basic order of society is moving. However, the successor to President Nestor Hernandez's wife, Christina, was elected president by a worker based on the broad support of leftist politics and the politics of nationalism, populism is working. 2001 national economic situation and the IMF bailout: the default experience has been. 950 billion in 2001 to declare the forfeiture of the country as rendered virtually bankrupt economy of Argentina President Nestor came to power in 2003 and then gradually began to recover. Initial 22% power to dalhadeon 8. 5% unemployment rate fell 8-9 percent annual GDP growth also was repeated. However, the recent declining economic growth and rising inflation, President Cristina is holding back. Her husband, a critical role in the election, but growth will be handed.

Argentina's labor problems have complicated factors that have historically not the government's reforms are holding back on. Argentina historically dominated rule, depending on how the national union's ability to decide what was the standard. For the needs of their giving, it recognizes that these points. Piketteroraneun unemployed Federation to press the government and enterprises, which caused disrespect to eat now, as housing, medical care is demanding and has been waging violent protests. 150 pesos per month, the government of their living expenses and free medical benefits, but done, the

circumstances of these claims is growing. But the entry of foreign workers are strictly limited to foreign permanent resident visa if their employment is not available in the country is given only to skilled workers. Fortunately, the work of foreign managers and technicians are permitted to enter quickly, Intel influx of excellent semiconductor engineers seem not to be a big problem.

Argentina has a developed system of transport infrastructure: more than 231, 300 kilometers of roads, one of the largest rail networks in the world (31, 409 miles), 25 seaports and 38 river ports and 58 airports (23 international). More than 25 airlines offer direct flights from Argentina to over 40 destinations on five continents. It also is in place a policy of investment in the infrastructure area under a strategic plan of expansion which provides increased gas transport capacity of 30%, an increase of electricity generation by more than 72% increase of 60% of paved roads in the period 2003-2011.

In late 2008 the international financial crisis in Argentina affected by the economic downturn, Argentina, the government has focused on protecting domestic industry. Also, tax measures for foreign companies is very weak condition, Emergency Economic Act 1989 (Economic Emergency Law, Decree No. 23697) announced, on existing and new investment fund of the Treasury and the central bank can affect Industrial Promotion (Industrial Promotion Law, Law No. 21608 of 1977) were suspended all incentives and subsidies, 1991, 1993, two years suspended again in 1995 announced measures to stop the application of such incentives have been.

Argentina is internationally recognized for its highly qualified human resources. The country ranks second in the region for its literacy rates and school life expectancy, reaching levels similar to those of Spain, Italy and Israel (Monitor Global Education, UNESCO, 2008). More than 87, 000 graduates of tertiary level students and 6, 200 graduate 106 graduates of universities around the country will join the labor market annually, with Argentina the first country in Latin America in terms of admission rate to tertiary education. The English language is also the highest in the region, as reflected by the results of examinations of the University of Cambridge, which put Argentina not only over countries such as Brazil, Chile and Mexico but also from Spain, France, Indonesia and Italy (Cambridge ESOL, 2007). Argentine professionals are distinguished for its capacity for technological innovation. The number of scientists and technicians dedicated to research and development, measured per million people, is higher than Brazil, Chile, Mexico and Uruguay (UNESCO, 2008).

Final Evaluation

Nation

Politic &

Economy

Labor

Infrastructure

Government

Employees

Argentina

Unacceptable

Partially Acceptable

Acceptable

Unacceptable

Acceptable

2. 3. The result of this evaluation

Although both Colombia and Argentina offer some great advantages, at the end the disadvantages outweigh and it is understandable why the site selection doesn't consider them any further and focus more on Costa Rica, Brazil, Chile and Mexico.

3. Candidates evaluation

3. 1. Political and economic stability

The site selection team did a field trip to each country in order to get a better understanding and be able to evaluate the countries properly. The team checked in each country how well it fulfills the defined criteria.

In terms of political and economic stability, Costa Rica offers the best conditions. The unitary demographic political system ensures political stability since 1948. During that time the government didn't only abolish the military but also established a well working social welfare system with special focus on education and health insurance. Another advantage of Costa Rica is CINDE, a powerful investment promotion agency which is very interested in attracting Intel to build the plant. . One of the biggest reasons for that might be the World Bank's proposal for CINDE at attracting electronics firms to the country for creating clusters among the companies. This could lead to more interactive relations with the companies operating in Costa Rica and attract new companies too.

Despite all these promising factors Intel was worried that their huge investment of \$300-500 million would overburden Costa Rica's tiny economy. Although CINDE is a great supporter for Intel, by offering good solution or are even willing to negotiate with Costa Rica's government to change the some regulations in favor of Intel, Intel was worried what could happen if CINDE will dissolve. Furthermore the management of Intel does not want special treatment from the countries or governments as the political conditions might change in the future creating problems for Intel.

In contrast to Costa Rica Brazil's enormous industry wouldn't be overstrained by the investment. The fact that many global firms have built plants in Brazil

proves that it offers an attractive environment and political stability.

However Brazil's legal complexity and the fact that Brazil hasn't such a big need to attract many further foreign companies, since its market is almost saturated, won't give Intel any chance to gain incentives or bigger advantages than in Costa Rica. Moreover the security issue, in form of hijacking and attacks scared Intel.

Chile as a democratic republic with a president and its long and close relationships to the United States fulfills Intel's required criteria.

Guadalajara in Mexico is counted as a second silicon valley and would meet all of Intel's criteria. Also all the already settled foreign firms show Guadalajara's attractiveness. But the fact that the government would even loose some regulations, alarms Intel because it leads to some unpredictability and a lack of transparency.

3. 2. Labor unions and labor regulations

Costa Rica confrontation with the unions are coping with problems wisely. For example, Solidaridad was established, It is a government-sponsored movement to create special voluntary associations as an alternative to confrontational, industry-wide unions. National collective bargaining system, especially through, wage levels are out flexibly adjusted. The government actively cope with this conflict with the unions are cutting down. In addition, only 7% of private-sector workers belong to labor unions, so labor issue is not much problem in Costa Rica.

The labor union in Brazil is not stronger than those in other Latin American countries, but much powerful than those in Costa Rica. Central workers' Union (CUT), one of most combative Brazil's labor federations, was related to the Workers' Party(PT), which controlled some state in Brazil. And labor cost in Brazil is usually higher than in other Latin American countries because many welfare and benefits are offered to Full time workers, such as paid vacations, lengthy maternity leaves.

There have not been existed confrontational labor unions in Chile, since powerful labor unions have been inhibited by pressure of government. And only 12% of workers are unionized now. But Labor cost, especially salaries for trained personnel, which Intel needed most, are not as cheaper than other Latin American Countries. The starting salary for an engineer is between \$30, 000-\$40, 000, and it is almost same from what it would be in the United States. Intel could hire technically trained personnel in Costa Rica or Mexico for almost half that amount.

Many companies in Mexico ensure harmonious labor relations by working with company unions referred to ad sindicatos blancos (" White unions"). White unions are much easier to work with than the more combative, confrontational unions that existed in many industries in Mexico. But the government law about forming a union conflicts with Intel's policy which is about not having unions anywhere in the world. Mexico's federal law stated that if a minimum of 20 employees in a given company decided to form a union, the company would be required to recognize it.

3. 3. Infrastructure

In an airport condition, Costa Rica has enough facility to fulfill Intel's need. Moreover they are located in nearest place among the candidates. It takes just three hours to U. S. however now, Intel is hard to use daily flight in Costa Rica. As Intel import and export all around the world, it may be a problem. But Intel can use their own airline due to open sky system on Costa Rica, this might be solve the problem somehow. Electrical Energy is more expensive than the others. It costs \$0. 07~\$0. 09 per kilowatt-hour. By the special agreement, Costa Rica government promised to supply electricity on \$0. 05 per kilowatt-hour.

Brazil has a strength on infrastructure. Therefore a lot of international companies have performed here before Intel has touch with them. Of course, airport also doesn't have big trouble to operate business. On electrical energy, their general cost is reasonable. That's why Brazil has a perfect condition on these factors.

Above all, Chile is too far from U. S. It takes almost 12 hours by airplane. Further, Scarcity of direct flights is more serious problem. If we consider importance of R&D cooperation with headquarter, Chile can't get good grade.

Golden triangle of Mexico (Mexico City, Guadalajara and Monterrey) has good condition for business. As a number of flights and capacity is sufficient, air transportation is all right. Especially Mexico's electricity cost is fascinating. It costs \$0. 02 per kilowatt-hour, less than half of Costa Rica's special cost.

3. 4. Government support - the government's corporate taxation rates, tax incentives, laws

There are industrial parks in Costa Rica with free trade zone status. In these areas, companies don't pay duties on imported parts. Another advantage is that companies are exempt from income tax for eight years. Even after eight years they were able to offer 75% exemption, if more than 25% of investment were reinvested after the fourth year. The Costa Rican government is willing to work with Intel without breaking its own laws.

The federal government offered a Productive Process Law (PPB) incentive for companies investing in R&D. There are still many other unfavorable taxes for companies in Brazil e. g. the Brazil cost and infamous tax. Sao Paulo seems not to lure investments either.

Chile's government was not able to offer incentives for Intel concerning investments. The only incentives Chile was able to offer were located in the poor region of the country, which Intel was not interested about.

Mexico has incentives prepared for companies at the state level. These incentives included free land and subsidized training for employees. The federal government is not able to offer any income tax exemptions or fiscal incentives.

3. 5. Availability of technical personnel and engineers to staff the proposed plant

Costa Rica is willing to develop an overall technical level in the country. The curriculum is going to be modified and a special certification program

<https://assignbuster.com/site-selection-process-intel-latin-america/>

created to produce the requisite numbers of technicians. The level of English language proficiency among the population in Costa Rica is relatively high.

A disadvantage is that Costa Rica is lacking mid level technicians, which are crucial for the plant. When planning about the sufficient amount of personnel for the plant, Intel didn't want any special treatment from Costa Rican government as it might cause problems to the company in the future.

Brazil and the target area in Sao Paulo has adequate amount of technical personnel for the plant. There is a famous technological university in the area (UNICAMP), which would provide more professional personnel to the plant than what Intel could find in Costa Rica e. g.

Chile has the sufficient amount of the technical personnel. However, the labor cost for educated engineers what the plant requires is very high comparing to other Latin American countries. As the labor cost is in testing and assembling plant is between 25-30 % of the total costs, Chile has a big disadvantage concerning this factor.

Hundreds of electronics companies have already established their plants in Guadalajara, Mexico where Intel was planning to establish its plant as well. The labor cost in Mexico was low and it provided a large supply of skilled engineers and technicians.

3. 6. The result of the evaluation

In summary the broad evaluation comes to the following result.

Nation

Politic &

Economy

Labor

Infrastructure

Government

Employees

Costa Rica

Acceptable

Acceptable

Acceptable

Acceptable

Acceptable

Brazil

Unacceptable

Unacceptable

Acceptable

Unacceptable

Acceptable

Chile

Acceptable

Unacceptable

Unacceptable

Unacceptable

Unacceptable

Mexico

Partially Acceptable

Unacceptable

Acceptable

Unacceptable

Acceptable

Costa Rica reflects acceptable level in every aspect we investigated. This is why our group suggests this country as a proper location for first manufacturing plant in Latin America. Though in certain factor other countries have a better condition, our decision is based on a total level.

Costa Rica is the only proper country concerning political and economical stability

Stability is fundamental of continuous operating. Costa Rica has unitary political system and stable social process. By relating these factors to

<https://assignbuster.com/site-selection-process-intel-latin-america/>

government favor, Intel might get positive expectation. Brazil's Politics is also comparatively stable. But due to federal political system their condition is too complicated. Moreover public security is not reliable as well. Mexico is not clear to deal with the process. It would make Intel hesitate to invest.

Considering Intel is very sensitive on labor issue, Costa Rica can get remarkable evaluation in this part. Labor union is not general in Costa Rica and most terms of regulation are company-favorable. The portion of union joining is not high in Chile as well. Still, high level of salary would be barrier for company.

Candidates have adequate level of infrastructure except Chile. Chile is not comfortable to use air-cargo. Although Costa Rica's expensive electricity is critical, this problem will be solved by special contract with government.

If Intel invests in Costa Rica, they can get exceptional tax incentive. It includes import duties and corporation tax. Otherwise the others do not show special and concrete favor on government level. It shows how Costa Rica wants to attract Intel's investment.

Brazil, Chile, Mexico satisfy the level of Intel's need. Especially Mexico's low labor cost looks more attractive. Otherwise Chile's high labor cost is weakness. Now Costa Rica doesn't have enough technicians Intel needs. However their education system seems active to deal with this problem. And Costa Ricans have strength on English. Nonetheless forecast of Costa Rica on this factor is positive, the process should be monitored

III. Conclusion: Managerial advices

For the last time our group wants to emphasize that we strongly recommend Intel's headquarter to invest in Costa Rica as all the reasons and arguments above support clearly this decision.

Futhermore some recommendations for the future site selection process should also be suggested to Intel's headquarter since International production is a core component of Intel's strategy to stay competitive and maintain the role of the market leader.

First of all a data base should be established in which the collected information about the different countries is saved. The countries should also be ranked according to the highest future potential, however at the same time the countries' disadvantages should be emphasized. A data base organized in this way facilitates the reconsideration of each countr