THE DUBAI LOGISTICS CLUSTER

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MICROECONOMICS OF COMPETITENESS

COUNTRY OVERVIEW

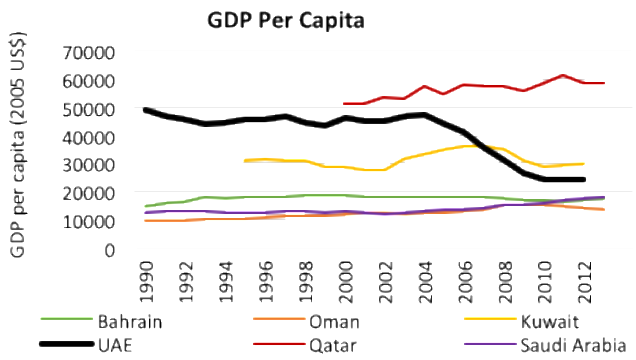
The United Arab Emirates (UAE) is a federation of seven emirates, each governed by its own monarch. The seven Emirates - Abu Dhabi, Ajman, Dubai, Fujairah, Ras al-Khaimah, Sharjah, and Umm al-Quwain - jointly form the Federal Supreme Council, which chooses a president every five years. Since independence from Britain in 1971, the ruler of Abu Dhabi has been elected as the president, while the ruler of Dubai has been elected as the Vice President and Prime Minister. Abu Dhabi serves as the capital and each emirate enjoys a high degree of autonomy. The country is strategically located in the Middle East, bordering the Persian Gulf, the Arabian Sea, Oman and Saudi Arabia. It occupies a total area of 83,600 km^2 with around 1,318 km of coastline[1]. The population is estimated to be 9.3 million in 2015 with only 13% nationals[2].

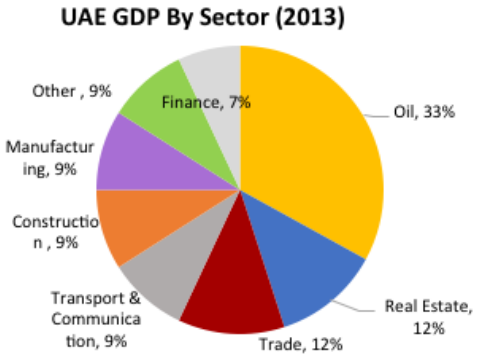
UAE Economic Performance

The UAE is an oil rich country, with most of its oil and gas production coming from Abu Dhabi. The country was ranked eighth worldwide in terms of oil and gas production in 2012 and seventh in terms of reserves[3]. Since the UAE's establishment, oil revenues have been used strategically to develop basic infrastructure and provide UAE citizens with government services including subsidized utilities, free education, and medical services. As a result of oil price fluctuation, the country has understood the importance of diversifying away from this resource and started to develop its petrochemical sector. During the 1990s, the UAE government

[1] CIA, "The World Factbook - United Arab Emirates".
[2] World Population Review, 2015.
[3] US Energy Information Administration, 2012.

implemented different economic reforms to liberalize trade and investment to further reduce dependence on oil. The strategy has resulted in reducing the oil contribution to GDP to 33%, and having real estate, trade, transport and communications grow to become the country's other main economic sectors[4]. In 2009, the country was affected by the financial crisis because of its deep integration with the global economy and had negative GDP growth for the first time since its establishment. In 2012 the country recovered mostly thanks to the tourism and trade sectors. As a result, the government decided to focus on transitioning to a knowledge-based economy. In 2014, the Prime Minister launched a National Innovation Strategy that aims to make the UAE among the most innovative nations in the world within seven years[5]. Currently, the UAE enjoys a relatively high level of income with a GDP per capita of US$ 24,077 (constant prices) in 2012 and is considered the second largest economy in the Middle East[6,7]. In addition, the country is the second least dependent on oil among GCC countries and the second most attractive in terms of foreign direct investment[8].





[4] Bloomberg. Emirates NBD.
[5] AMF, 2014.
[6] World Bank, 2012.
[7] Meed.
[8] World Bank, 2012.

UAE COMPETITIVENESS ANALYSIS

Endowments: As indicated earlier, the UAE has rich endowments, namely oil and gas. Its strategic location also allows the UAE to connect easily to all Gulf countries, East Africa, South Asia and Europe. The moderate winter climate, combined with clean beaches, promotes the country as an attractive tourist destination. At the same time, having sunny days almost all year round creates an opportunity for solar energy production. Summers, however, experience extreme heat, making outdoor activities unattractive. Besides being one of the poorest countries in terms of water resources, the weather also increases water and electricity consumption, putting pressure on the infrastructure. The limited amount of fertile land in the UAE poses other challenges, like its dependency on imports for food.

Macroeconomic Competitiveness: The UAE was ranked 12th in the 2014 Global Competitiveness Index, its strong position driven by strong infrastructure, macroeconomic environment and robust political institutions[9]. The UAE also ranks high in human development indicators. Primary school attainment reached 91% in 2012[10]. The country offers free accessible public health services for nationals and requires the private sector to provide workers with medical insurance[11]. However, the country is still lagging behind other countries with similar GDP per capita in the areas of basic education and health[12].

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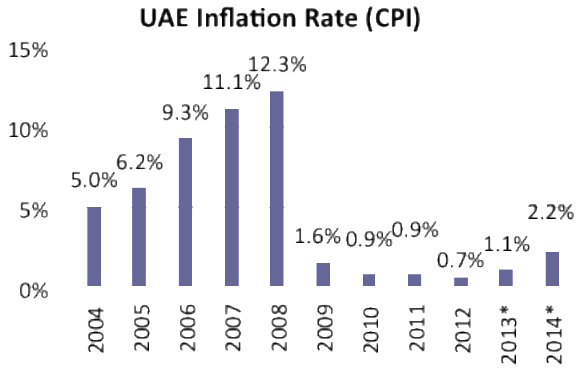
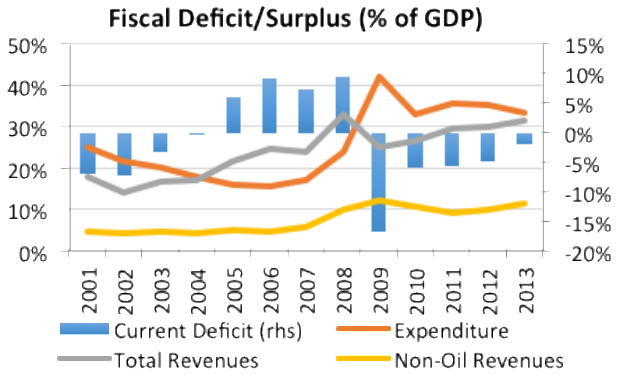
[9] Global Competitiveness Index, 2014-2015.
[10] Human Development Index, 2014.
[11] Graduate Institute Geneva, 2010.
[12] Global Competitiveness Index, 2014-2015.

In terms of political institutions, the government has the highest rank amongst Gulf countries, based on the World Governance Index. Its good score is mostly driven by government effectiveness (1.17 out of 2.5) and control of corruption (1.24 / 2.5). Furthermore, the UAE is considered a stable country with a low security and political risk profile, in an otherwise volatile and high-risk region. Other areas like press freedom and accountability are still worse than other countries with similar income per capita[13].

The UAE has a strong fiscal and monetary outlook. The currency is pegged to U.S.D., which reduces the risk of currency fluctuation. Inflation has decreased since 2008, when it peaked at 12.3%, reaching 2.2% in 2014[14]. The UAE also has 3 sovereign funds with substantial wealth, including the Abu Dhabi Investment Authority (one of the largest in the world), Mubadalah, and the Dubai Investment Corporation[15]. Although the UAE has succeeded in reducing the oil sector's contribution to GDP, fiscal revenues are still highly dependent on oil revenues[9].





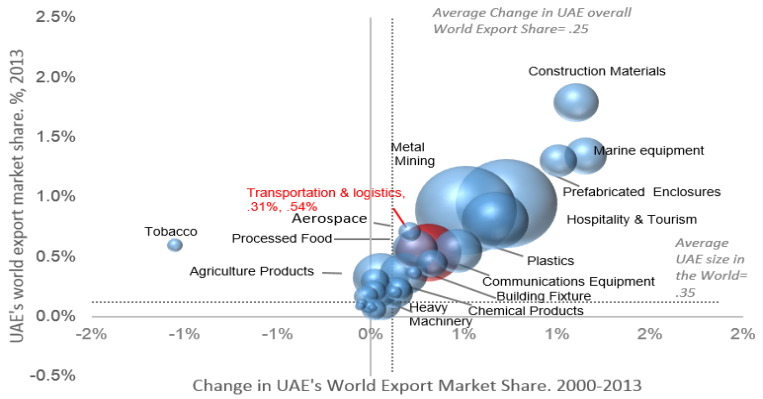
Microeconomic Competitiveness: Among many positive factors of the business environment, the UAE is considered a tax haven with no profit tax, and an average tax lower than the

[13] Global Competitiveness Index, 2014-2015.
[14] International Monetary Fund, 2014.
[15] Sovereign Fund Profiles, Belfer Center & CID, 2015.

region's[16]. The country was ranked second in economic freedom amongst GCC countries, with a score higher than the world average (72.4)[17]. It was also ranked third in infrastructure according to the 2014 GCI index. Besides that, labor cost is relatively low due to the immigrant labor force. The level of investor protection, however, is considered low. From a company's operations and strategy perspective, the UAE has the highest investment in research and development amongst GCC countries, with 0.5% of GDP in 2011[18]. However, this strength is only relative; as the UAE still cannot be considered an innovation driven economy. The overall quality of education is low with the UAE's PISA score at 430.1, below the average of 500[19]. Lack of enough skilled labor is considered one of the reasons that hinder investment in the UAE[20].

The exports portfolio includes different clusters with a world share higher or equal to the UAE average. In addition, clusters including transportation and logistics witnessed growth of their share of the World Exports, when removing the outliers of oil and jewelry clusters.

Figure5: UAE National Cluster Export Portfolio with Outliers Removal

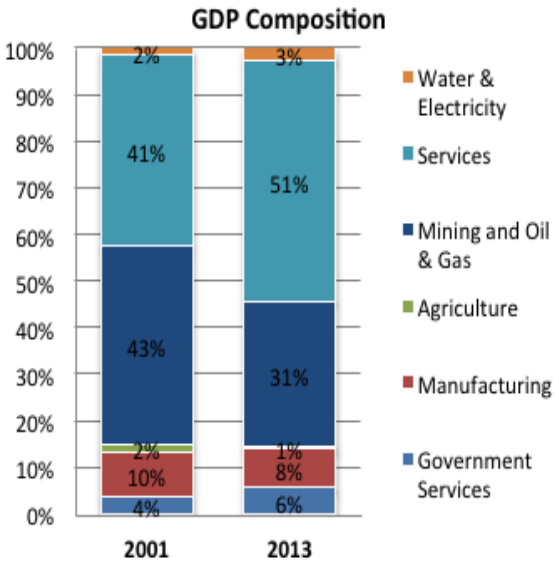


[16] World Bank, 2012.
[17] Heritage Foundation, 2010.
[18] Global Competitiveness Index, 2014-2015
[19] INSEAD, OECD
[20] Global Competitiveness Index, 2014-2015

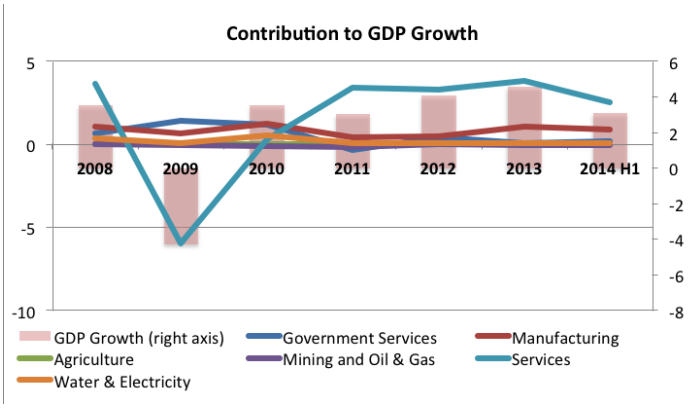
DUBAI OVERVIEW

Dubai has a long history of openness to trade, being a natural harbor. It has been called the gateway between East and West, connecting China, India, the Middle East, and Africa[21]. All these regions are important suppliers of manufactured goods redistributed through Dubai. The Dubai government has always been eager to support free flow of labor and capital, in an effort to diversify away from oil revenues from neighboring Abu Dhabi and maintain its position as an important trade hub[22]. For instance, Dubai has no exchange controls, quotas, or trade barriers. Dubai's economy is now more diversified than the rest of GCC countries and the UAE[23].

Macroeconomic competitiveness: Dubai's transformation has been remarkable. Real GDP growth averaged 2.4% in the 2008-2013 period, but sped up to average 3.8% in 2010-2013. Dubai is a rich economy, with an elevated GNI/capita of US$ 38,620, or 72% of the U.S. level. Inflation has remained under control although slightly increasing from 1.3% in 2012 to 3.4% in 2013.

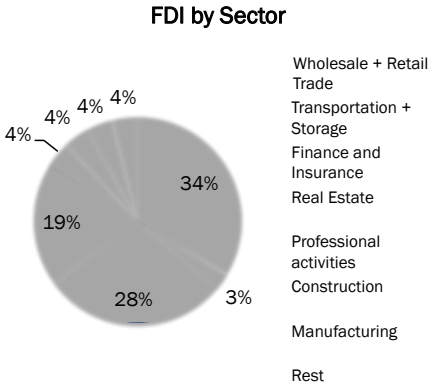


[21] http://www.emirates.com/english/destinations_offers/discoverdubai/aboutdubai/dubaihistory.aspx
[22] http://www.dubai.ae/en/aboutdubai/pages/dubaieconomy.aspx
[23] "Economic Diversification: The Road to Sustainable Development" (a report by Strategy&) http://www.strategyand.pwc.com/global/home/what-we-think/reports-white-papers/article-display/economic-diversification-road-sustainable-development



Not only has Dubai grown in terms of income, but also it has moved from a resource-based to a service economy supported by value-adding industries like logistics and retail trade. In 2001, the contribution to GDP from mining and oil sectors was 43%, decreasing to 31% in 2013, whereas services grew from 41% to 51% of GDP. Dubai's main economic sectors are retail trade, logistics, and real estate, all of which are dependent on immigrant labor. One concern is the quality of life and safety conditions of immigrant workers, who comprise over 50% of the Emirate's working population.

FDI has grown on average 13.5% since 2008. The majority of FDI goes into the trade (34%) and finance sectors (28%). The Dubai government finances most investments in transportation and logistics and therefore foreign investment in these sectors is only 3% of total FDI. Nevertheless, FDI in these areas has grown at approximately 10% per annum since 2008. Net foreign investment flows in the Dubai Financial Market (DFM) doubled in 2014. The Dubai Financial Market Index reflecting improved investor sentiment since mid-2012.



Fiscal policy: Fiscal policy has historically been expansionary. In 2015 the fiscal budget projects a 9% rise in spending. Nevertheless, the government expects its first balanced budget in six years time (mostly by increasing tax revenues). Dubai has made progress in restructuring and refinancing debts, improving its long-term debt sustainability. Its debt stock remains large at around $142 billion (includes Dubai Government and GREs), representing 102% of GDP, much higher that the UAE's (which is around 15% of GDP). The government's efforts have allowed it to reach fiscal consolidation in 2015. **In summary, growth prospects and fiscal consolidation strengthen Dubai's resilience to external shocks.**

During 2008-09 crisis, the economy was severely impacted by a housing bubble burst, but is now recovering. Many government related entities (GREs) also went bankrupt. Thanks to Abu Dhabi, Dubai didn't default on its debts. Abu Dhabi bailed Dubai out with US$20 billion. Dubai also has a Sovereign wealth fund (Investment Corporation of Dubai) of close to $160B of assets under management[24]. This fund also acted as a "lender of last resort" during the financial crisis25, when Dubai was close to defaulting on its sovereign debt.

Real Estate Market: Rental values in Dubai are cooling down. However, large investments in residential and commercial real estate raise risks of overcapacity and overheating in the mid term. For example: The Mall of the World, a mixed-use complex with the world's largest shopping mall, was announced in 2014. Another ambitious project is the Mohammed bin

[24] http://www.icd.gov.ae/pages/about.php
[25] http://www.ft.com/intl/cms/s/0/3c651a5c-d5ff-11e3-a239-00144feabdc0.html#axzz3YoX8onWm

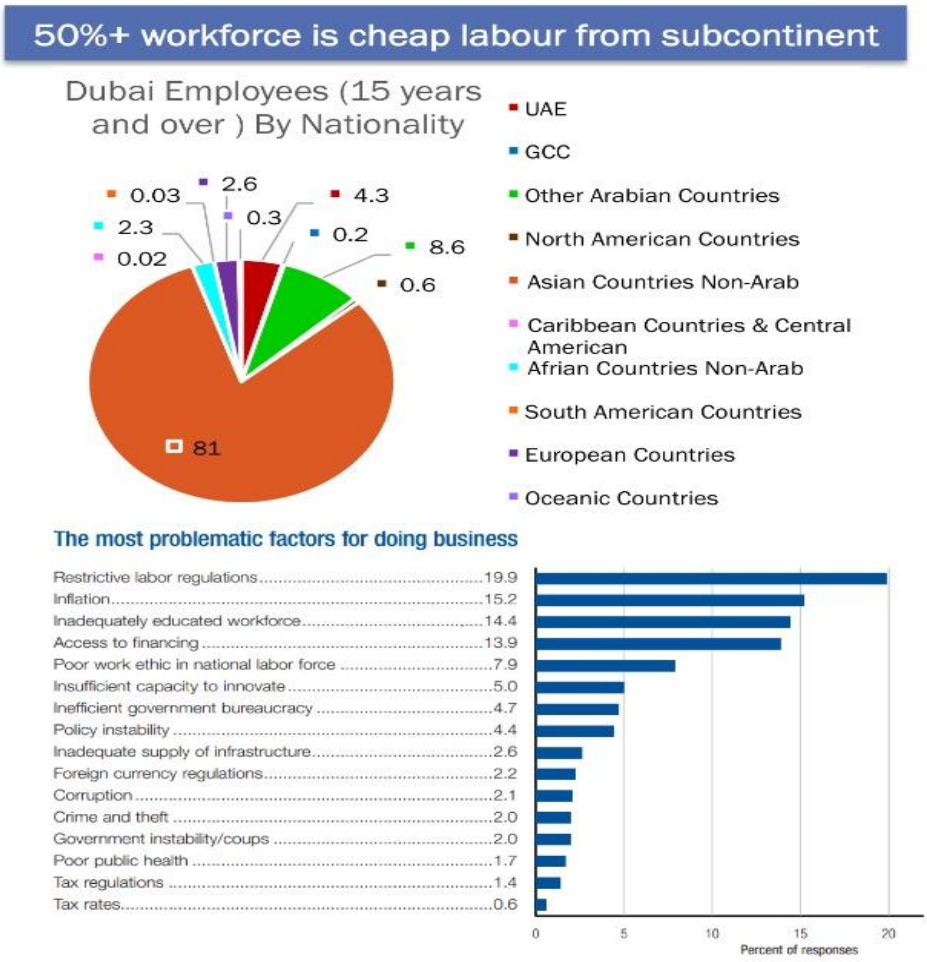
Rashid City District One and Deira Islands, a 15.3 km waterfront cluster of hotels, residential areas, resorts and retail outlets, currently under construction. All of these projects are expected to be ready by the 2020 World Expo hosted by Dubai, which will cost around US$6.8bn.

Microeconomic competitiveness: Massive infrastructure investments in Dubai have made it a world-class logistics hub. In the early 2000s, thanks to oil price increases Dubai focused deliberately on developing transport, telecommunications, energy, and industrial infrastructure. The opening of the *Jafza* port in 1985 within the *Jebel Ali free zone* dramatically increased trade in the region. Favorable conditions have brought in many foreign companies: the port allows 100% foreign ownership, 0% corporate tax for 50 years, no restriction on capital repatriation, 0% import or re-export duties, 0% personal income tax, no currency restrictions, no restriction on foreign talent or employees, ability to mortgage your premises to a bank or financing company, and onsite customs[26]. Dubai overall also offers an investor friendly financial and regulatory environment.

The lack of local human capital is one of the biggest challenges that Dubai faces. The local Emirati force constitutes only 5% of the total work force in the Emirate. The problem with non-national labor is multi-dimensional - it raises the question of its sustainability, given that they are usually not invested in the system in the long run (and not given any incentive to be), the demographic imbalance, and managing them with all the human rights controversies. Over 80% of local Emiratis are employed in high-wage, low working hours public sector jobs, which makes

[26] http://www.jafza.ae/explore/why-jafza/

it very unattractive for them to pursue jobs in the private sector. Below are some charts that show the some of the challenges associated with the labor market.



Government Institutions: The government in Dubai is an absolute monarchy with no elections. The Al Maktoum family has ruled Dubai since 1833. Currently, its ruler is Mohammed bin Rashid Al Maktoum, who is also Vice President and Prime Minister of the UAE. Sheikh Mohammed has a good relationship with the UAE president, the Emir of Abu Dhabi, Sheikh Khalifa bin Zayed. Dubai and Abu Dhabi are the only two out of seven emirates that have veto power over critical national matters in the UAE's legislature. More importantly, Dubai has full autonomy over its fiscal policies.

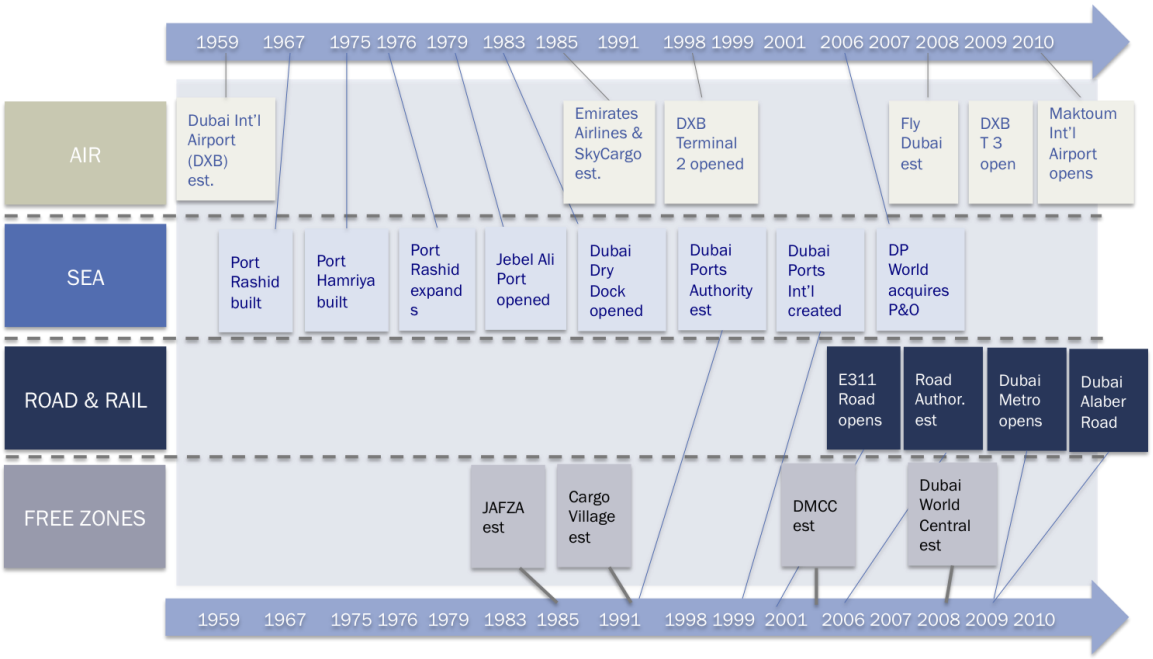
THE LOGISTICS CLUSTER IN DUBAI

Overview and evolution: Dubai's decision to foster and fortify its logistics cluster was made early on, as part of its larger diversification strategy, knowing it had limited resources to rely on going forward. The rulers of Dubai decided to capitalize on the city's strategic location, and set out to position the cluster as a hub between East and West. Today, with 70% of the world population within an 8-hour flight, Dubai positions itself as a gateway market to over three billion people.

Flash forward to 2014, and logistics in the UAE now accounts for 6% of GDP. Freight forwarding, and transportation are the most important segments of the logistics market, each contributing 62% and 18%, of logistics related revenue, respectively.[27] The phenomenal pace at which the cluster has grown over time is truly impressive, considering milestones such as the

[27] Source: Frost and Sullivan report, 2014

opening of Jebel Ali Port and the establishment of Emirates Airlines, occurring as recently as 1979, and 1985, respectively.



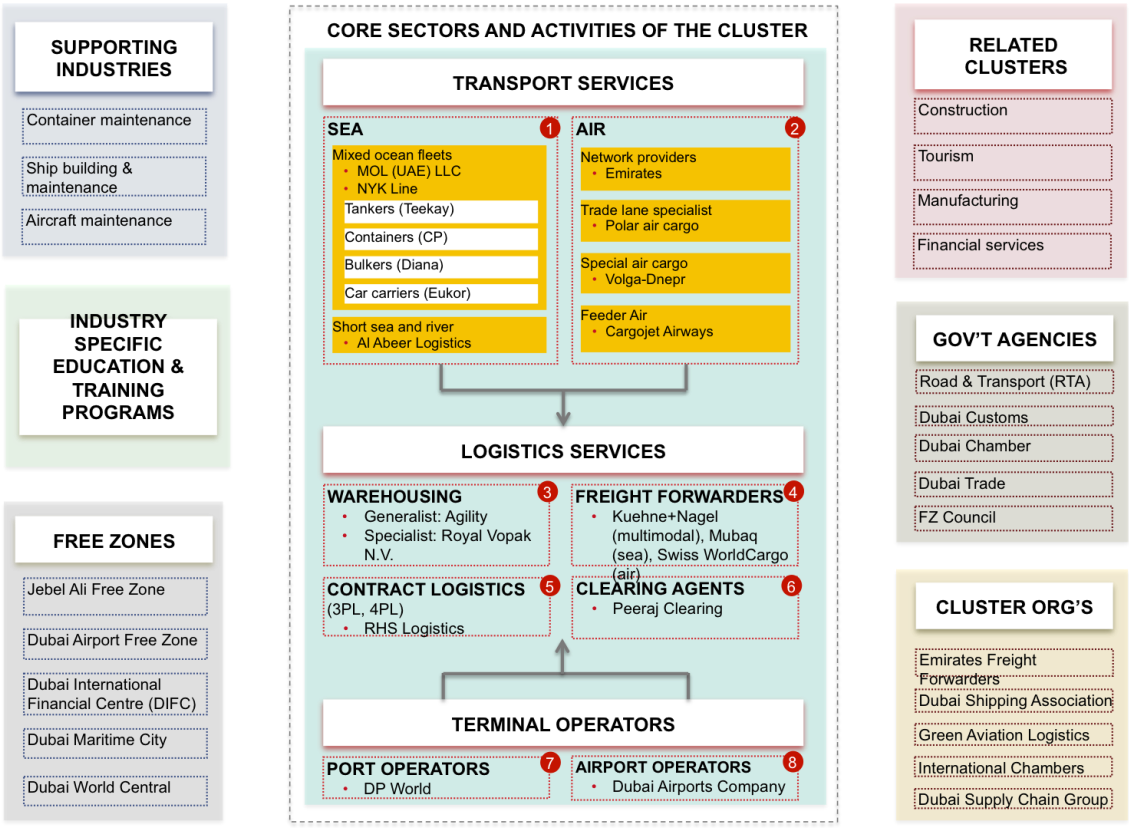
The emergence of the cluster was achieved very methodically, thanks to excellent governance, which enabled efficient execution. Dubai's 'can do' attitude is nicely reflected in one of Sheikh Mohammad Bin Rashid Al Maktoum's quotes - "We don't wait for things to happen, we make them happen."[28] Over time, one may observe how Dubai first established and grew a strong base of infrastructure assets across air, sea, road, and rail segments. From this healthy infrastructure foundation, it then created its own world-class anchor tenants, such as Emirates Airlines, to make it more attractive for other key anchor tenants to then come in. In parallel, Dubai also became the first emirate to pioneer the Free Trade Zone (FTZ) model in the UAE, to make it even more attractive for foreign companies to do business in Dubai.

[28] Source: dubaifdi.gov.ae/en/.../Dubai%20FDI%20Why%20Dubai%20report.pdf

Some of the hallmarks of FTZ's such as the Jebel Ali Free Zone & Authority (JAFZA) are 100% foreign ownership, 0% corporate tax for 50 years (a concession that is renewable), no restriction on capital repatriation, 0% import or re-export duties, 0% personal income tax, no currency restrictions, no restriction on foreign talent or employees, duty exemption on imported raw materials and equipment, the ability to mortgage your premises to a bank or financing company, onsite Customs, and a streamlined 'one stop shop' company set up procedure. Using policies such as these, Dubai has thus made it extremely easy and favorable for foreign businesses to set up shop in JAFZA, and the other 21 FTZ's now in existence in the emirate. While several of these FTZ's have been developed for specific sectors and industries including IT, media, finance, gold and jewelry and health care, JAFZA houses and supports a wide array of industries, with no single industry dominating in presence – in fact, it has been designed to house different areas specifically customized to the needs of different industry tenants.[29]

Cluster Map: As we can see in the cluster map, Dubai's logistics cluster is centered around its strong infrastructure (especially in sea and air), the foundation upon which logistics services and terminal operators were then able to emerge and grow. Dubai's road network, while not included in the cluster map, is also world-class, and also serves to support cluster activities overall. Rail is an infrastructure area that is not a strength of this cluster, with only a metro in operation, and virtually no other type of real rail infrastructure.

[29] Source: http://www.jafza.ae/about-us/our-history/



Once again, it's important to note just how successful Dubai has been in its key air and sea segments of the cluster core, by highlighting a few illustrative examples.

Air

Dubai International Airport DXB, which opened only 30 years ago, was the world's busiest airport (69.5M passengers) in 2014, beating LHR and HKG; is home to Emirates Airlines (consistently ranked in top 5 airlines worldwide), Emirates SkyCargo (ranks 3rd worldwide in freight tonne km flown, after FedEx Express and UPS Airlines), and has attracted over 150 airlines to Dubai. Dubai World Central is a FTZ supporting logistics, aviation, commercial, exhibition, humanitarian, residential and other related businesses around AL Maktoum Airport

(with planned annual capacity of 12M tonnes and 160 M passengers, making it world's largest airport).

Sea

The Port of Jebel Ali is consistently ranked in top 10 busiest ports worldwide in TEU (container traffic), and Dubai's own Port Authority, established only in 1991, operates Dubai's two main ports - Port Rashid and Jebel Ali Port, amongst the biggest man made ports of the world.

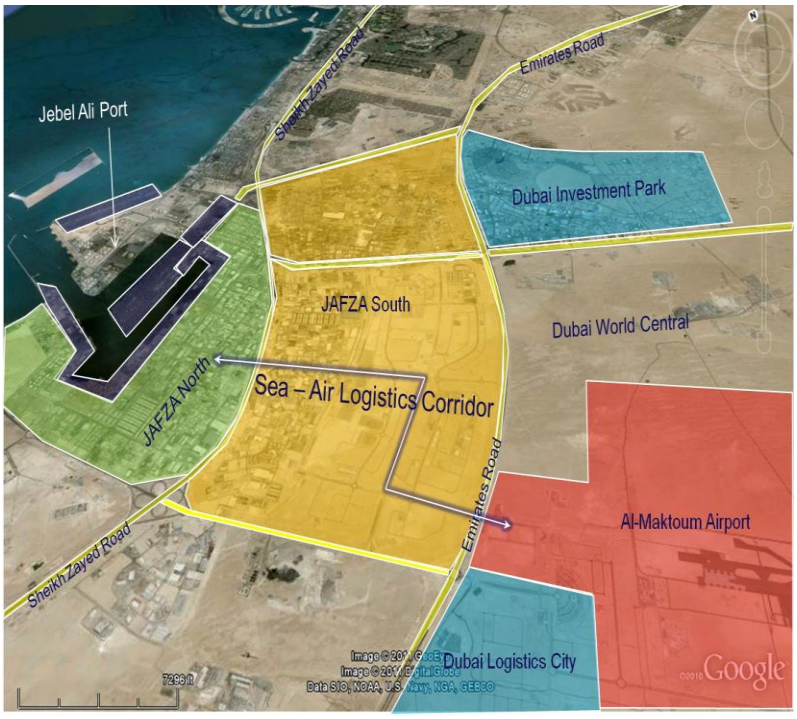
Related and supporting clusters, and government authorities

As mentioned earlier, Dubai's logistics cluster was planned strategically, in parallel with some significant related clusters – tourism, construction, manufacturing, and finance- and supporting industries – container, ship, and aircraft maintenance. Additionally, government policy was used in conjunction to create Free Zones, which were instrumental in attracting key tenants and foreign stakeholders to the cluster. Today, 22 FTZs support integration amongst logistics assets and provide ease + speed of doing business. Overall, strong governance has enabled the execution of large-scale cluster initiatives and efficient coordination between organizations. This strength in governance is perhaps Dubai's most important current competitive advantage.

Positioning: Dubai's creation of one of the largest sea-land-air hubs positions it as a unique provider of sea-air option for Asia-Europe trade, savings customers up to 50% when compared to shipping by air freight, in addition to a much faster transit time when compared to shipping by pure ocean freight. Secondly, Dubai positions itself as an important gateway for

import/export to the Middle East & Africa, and for re-exports in the Persian Gulf (Dubai is the world's third largest re-export hub).[30]

Linkages: When considering any logistics cluster, it is also important to consider how strong linkages may be between different segments of the cluster. In the case of Dubai, the ability and opportunity to master plan many parts of the city from scratch, paired with the strong governance to be able to execute on such plans, has enabled efficient linkages and integration which enhance overall cluster strength. Although 10 years ago, one might point out that linkages were not seamless in all cases – for example, DXB Airport is not located directly next to either of Dubai's ports) – today, one may argue that strong linkages are also one of Dubai's key competitive advantages.[31]

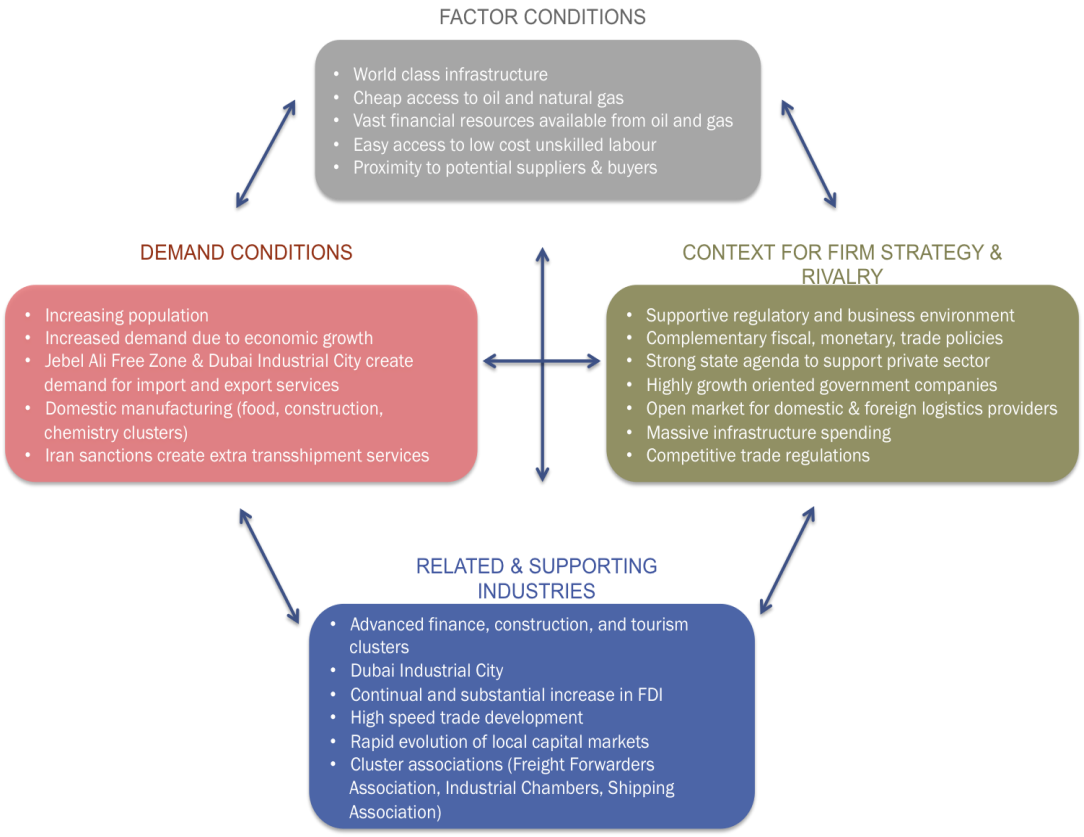


The area shown above is the perfect illustration of these strong linkages, with Jebel Ali Port (Middle East's largest port) and Dubai World Central-Al Maktoum Airport (world's largest airport) embedded in one customs free zone, where no customs bond is required for goods in

[30] Source: dubaifdi.gov.ae/en/.../Dubai%20FDI%20Why%20Dubai%20report.pdf
[31] Image source: http://www.portstrategy.com/news101/port-operations/planning-and-design/ports-uplifted-by-sea-air#

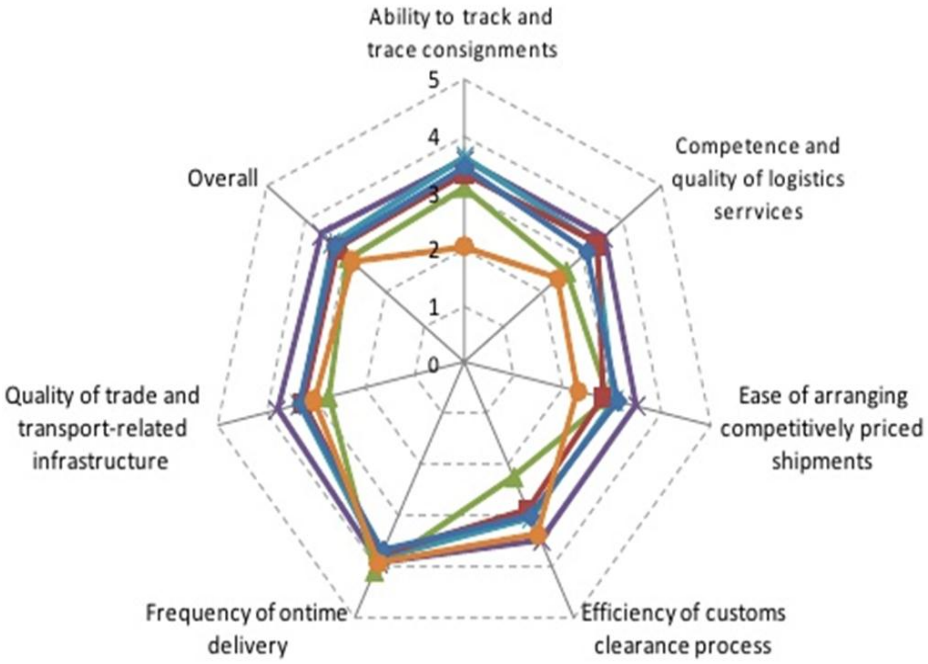
transit arriving by ocean and departing by air. Physical proximity and integration also contribute to faster cycle times and lower costs. Cargo can be ready for flight in as little as 6 hours from arrival at the port. The Dubai Sea-Air Logistics Corridor features e-services hosted by Dubai Trade which integrate services of DP World, Jafza, Dubai Customs & Dubai Commodities Centre – essentially, no paper work is involved. Efficiency achieved through integration has made Dubai the cheapest place worldwide to both export ($665/container) and import ($625/container), after Singapore and Hong Kong.[32]

COMPETITIVENESS DIAMOND



[32] Source: http://www.portstrategy.com/news101/port-operations/planning-and-design/ports-uplifted-by-sea-air Import and export costs for UAE (2014) from http://data.worldbank.org/indicator/IC.EXP.COST.CD/countries/1W-AE-SG-NL-HK-JP?display=graph

Regional Competition: Despite the fact that the UAE has shown a very high level of competitiveness relative to its neighbors on various dimensions, other countries seem to be catching up and potentially learning from and copying the UAE model in general, and Dubai specifically. Looking at the data, the UAE still leads in overall competitiveness, having a special edge in the ease of arranging competitively priced shipments, the efficiency of the customs processes, the related infrastructure for trade, and the competence and quality of logistics. The graph below shows how the UAE compare with the other GCC countries, according to the Logistics Performance Index:



Country	LPI Rank
UAE	24
Bahrain	32
Kuwait	36
Saudi Arabia	40
Qatar	55
Oman	60

The UAE has the best performance by far, but despite holding tight to its first place, there are many challenges that Dubai's cluster could face in the long run. As neighboring countries intensify their effort in diversifying away from natural resources, it could become harder and harder for Dubai to compete. For example Qatar, which is one of the wealthiest countries in the world, has been trying to play a bigger role in the local scene. This was clearly manifested when

they won the hosting of the 2022 World Cup. Qatar's appetite is expanding into other areas such as logistics. For example, Qatar Airways has been rising by expanding globally and poses fierce competition to Emirates. Additionally, Qatar opened the Doha Airport and the Sea Port, both of considerable size.

Another example of local competition comes from Oman. The neighboring country has been investing heavily in the past decade in building a number of sea ports on the gulf of Oman and the Arabian Sea. Sohar Port, only 200 Kilometers away from Dubai (yet outside the strait of Hormuz) will soon be connected to the UAE and the rest of the Gulf by the upcoming gulf railway. In addition, there is a road under construction that would connect Oman to Saudi Arabia. Sohar complemented its growing port with a good size Airport that is used for goods and passengers. Salalah Port and Duqm Port (under construction) are also complemented with airports that could potentially take away some of Dubai's share of the logistics business in the area. Their superior location and connectivity to the gulf can "disintermediate" Dubai.

Along with GCC countries, the biggest country in the region in terms of population and size, Iran, could have the sanctions lifted in case of a final nuclear agreement. The lift of sanctions can have both positive and negative impacts on Dubai, Iran being one of the biggest business partners to Dubai. It could open the doors to a huge market but it could also could replace Dubai, which is currently the biggest port of re-export to Iran. In addition to that, China has invested more than 45 Billion dollars to build a seaport in Gwadar in Pakistan; the seaport will

be connected via a services corridor to the east. The chart below shows the growing seaport competition to Dubai in the region.

Million TEU per year

Kuwait

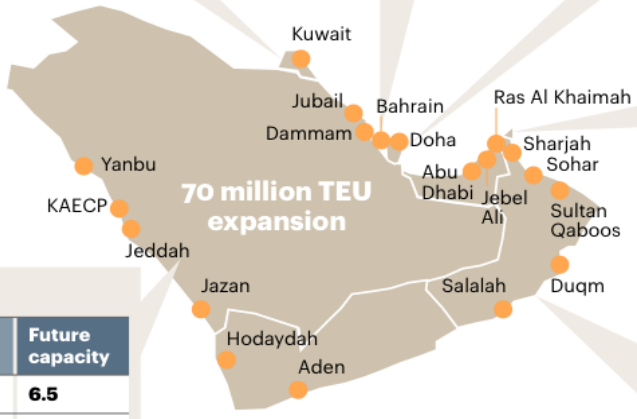
Port	Current capacity	Future capacity
Mubarak al Kabeer	Planning phase	**1.3**

Bahrain

Port	Current capacity	Future capacity
Khalifa Bin Salman	1.0	**2.5**

Qatar

Port	Current capacity	Future capacity
Doha	Construc-tion	**6.0+**



UAE

Port	Current capacity	Future capacity
Jebel Ali	14.0	**30.0**
Abu Dhabi	1.25	**15.0**

Saudi Arabia

Port	Current capacity	Future capacity
Dammam	3.5	**6.5**
King Abdullah Economic City	Construc-tion	**20.0**

Oman

Port	Current capacity	Future capacity
Salalah	6.0	**10.0**
Sohar	0.3	**5.3**
Duqm	Construc-tion	**Unknown**

Security: Being in a very problematic area of the world can always be a risk in the long run. Any tension with Iran can easily close the Strait of Hormuz, completely choking the seaport of Jabal Ali. The rise of tension in the region automatically increases the cost by significantly increasing the insurance premiums of the ships that cross the strait. Such phenomena occurred during the Iran-Iraq war in the 1980s, yet did not have a big impact due to the lack of competition and openness at that time. In addition, the threat of terrorism is serious. Despite being a safe country in general, the UAE was mortified by an act of terror where a local woman brutally murdered an American teacher in a mall in Abu Dhabi, bringing to attention that terrorism is not a negligible factor.

RECOMMENDATIONS			Technically feasible	Administratively feasible	Politically feasible
Human Capital Development	Labor Policies	Aligning public sector salaries to the private sector average for the same types of positions	Considering the fact that Dubai has on average 3 percent inflation over last 10 years, it seems just, but not increasing the salaries, government won't be able to close the wage gap completely. But by lowering the wage gap and giving a behavioral signal to market, government can encourage people to join private sector to some extent.	Implementing this policy is fairly easy. Government does not need to go through extensive structural change.	How to define entry level to mid level experience people is not an easy task and may cause complaints, especially from people closer to the upper bound of this policy.
		Increasing public sector working hours	Increasing working hours by at least one hour can reduce the gap in working hours between private and public sectors. This will also reduce Emiratis incentive to work only for the public sector	Fairly easy to implement	This policy may raise some dissatisfaction, especially among senior employees and may as a result be politically hard to implement
		Introducing social security system for the private sector	Scaling up the current system for public sector employees into a national level social security system	Fairly easy to implement	Because government is improving people's living situation, there should not be any potential political issue
	Educational Policies	Scaling up the capacity of quality high education	Fairly easy to design	Fairly easy to implement	There might be minor conflict with heads of current successful universities wanting to keep their own monopoly
		Adding compulsory	Technically easy and fast.	Fairly easy to implement	Politically easy and fast.

		private sector internship to university curriculums			
		Creating private sector targeted scholarships	Technically easy and fast.	Getting the private sector on board to invest in this policy is not easy and needs a large amount of negotiation. Can potentially be solved by collaboration institutions.	
		Creating innovation hubs in local universities, funding entire research groups of top scholars (in targeted areas)	Technically easy and fast.	Choosing and convincing successful researchers to move to Dubai is not an easy task; approaching entire groups together may make this task less challenging	
		Better targeting scholarships for students who study abroad	Technically easy and fast. Government needs to run need assessment study before deciding about the target majors	Fairly easy to implement	
	Entrepreneurship Policies	Changing bankruptcy law	Technically easy and fast	Fairly easy to implement	Because this law is in place for a long time it might not be easy to convince different stakeholders to agree on this

		Creating specific loans supporting start-ups	Technically easy and fast		
		Creating gov't supported annual competitions	No technical difficulties	Fairly easy to implement	Politically easy to impalement
Increase/keep Competition	Creating partnerships with other emirates		To expand the capacity of the cluster use the potential of the other emirates	Once technical part is decided administration should not be hard	Because interactions are between emirates it might cause some frictions
	Creating partnerships with regional competitors		Negotiations for JV's and partnerships are usually difficult and sophisticated. Dubai should make sure these contracts are in favor of increasing competitiveness of the cluster	Fairly easy to implement	Because Dubai will deal with governments especially in the case of Iran, partnerships will have a political side to them and Dubai should be careful about this
Ecommerce infrastructure			Technically it would require a large amount of planning and logistics	It would be hard to change the current system in place.	It is not politically hard to implement
Changing human rights related labor laws and regulations			It is very hard to figure out what should be done in terms of social projection and labor regulations related to this issue	Given the number of laborers, implementing any related policies and making sure they have enough coverage is hard	Emiratis may have complaints against any policy to improve foreign laborers' situations, mainly because it may have a negative effect on the cost of labor
Changing the regulations about dealership rights			This policy will help the UAE to improve competitiveness within the country	It is hard to change all the chain implementation issues regarding this regulation	People who currently have dealership licenses are very powerful and it could be politically hard to change the regulation regarding this issue

Labor Polices

- Aligning public sector salaries to the private sector average for the same position: on average, Emiratis with mid to high level of experience earn more in the private sector. Therefore, this policy should target entry level to mid level experienced employees. This policy should apply gradually, lowering the rate of increase in salaries for this part of public sector employees over 10 years until government can successfully lower the gap between public and private sector salaries.
- Increasing public sector working hours: increase working hour by at least one hour per day but keep the two days weekend holidays.
- Introducing social security system for private sector: scaling up current social security system and make it national for the private sector as well.
- Having targeted scholarship for students to study abroad: Instead of paying for all Emiratis education outside the country in the same way, have targeted and more attractive scholarships for certain majors, which are mostly needed in the private sector.

Educational Policies

- Scaling up the capacity of available quality higher education: the number of current successful universities does not match demand. Therefore, to have enough skilled nationals, Dubai need to invest in scaling up good higher education.

- Adding the compulsory private sector internship to the universities curriculum: to promote connection and interest in private sector jobs, create compulsory internships.
- Creating private sector targeted scholarships: negotiate with private sector companies, especially big companies, to invest in scholarships for locals in the areas of their interest.
- Creating innovation hubs in local universities, funding entire research groups of top scholars (in the targeted areas): As famous researchers usually wont move to other universities unless they have their own research group there, Dubai should try to attract entire research groups.

Entrepreneurship Policies

- Changing bankruptcy law
- Creating specific loans supporting start-ups: financial support is one the most important binding constraint for stars-up. Creating some government support loans specifically for stars-up can help entrepreneurship improvement.
- Creating government support annual competition: National/international Entrepreneurship competition can promote the start-ups .

Competitiveness

- *Creating partnerships with other emirates:* Integrate the cluster strategy between emirates. For example, to increase the capacity of air transportation in logistic cluster, emirates started Al-Etihad, which belong to Abu Zabi.
- *Creating partnership with regional competitors:* Dubai should increase its partnership with other countries such as Iran and Turkey. For instance if Iran's sanction lift, Emirates airline can have partnership with Iranian airlines and as a result increasing their own market size.
- Ecommerce infrastructure: Currently there is no home delivery mail system in Dubai. But Dubai has well established
- Changing human right related regulations: There are a huge number of low skill cheap labors working currently inside Dubai. These people normally do not have good social protections. If Dubai wants to improve its general competitiveness it should work on this issue because of the city reputation in international communities.
- Changing the regulations about dealership rights: Currently dealers have monopoly right in Dubai. This policy will reduce the competitiveness for locals and prevent the scaling up of the business. This regulation can be change and by that promote the business environment and as a result create jobs.