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ABU DHABI CHAMBER

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Logistics and Transportation Services in Abu Dhabi

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Dear reader



The Abu Dhabi Department of Transport (DoT) was established to cover all aspects of transport policy and development in Abu Dhabi. The department's mission is to regulate, plan, and develop an efficient and well-integrated transport system serving the public in the four main sectors: aviation, maritime, public transport, and highway. Transportation and logistics facilitate the industry strategy that Abu Dhabi has adopted, both for public transportation and cargo.

Freight in Abu Dhabi includes goods being carried by van, truck, rail, and intermodal container. There are several ongoing government transport projects in Abu Dhabi on the cargo side of the transportation sector. Key projects include the new terminal at Abu Dhabi International airport, Khalifa Port, and Etihad Rail.

With a population of over 2.9 million, Abu Dhabi is congested at the best of times. During rush hour and on the weekends, traveling across Abu Dhabi can be a slow

process. The Global Traffic Scorecard report published by INRIX in March 2019 shows Abu Dhabi residents wasted 50 hours last year in traffic and congestion.

One of the initiatives of the DoT is to reduce road congestion. Continued expansion of the road network throughout the UAE and in Abu Dhabi has helped to ease traffic. The government entity is focused on enhancing mobility, safety, and environmental responsibility.

Recent changes to Abu Dhabi's public transport service include the addition of new buses, increasing bus trips, and implementing a toll gate system for motorists. These initiatives have been put in place to tackle congestion and encourage increased use of public transport. However, more remains to be done.

This report concludes with recommendations for air cargo, ports, and long-term strategy suggestions for the transportation sector.

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Infrastructure in the UAE

The UAE National Agenda 2021 highlights the importance of infrastructure to the country. From roads to airports to ports, the UAE has the most advanced infrastructure in the region. The UAE government vision includes providing world class quality airports, ports, and road infrastructure.

In fact, according to the 2017–2018 Global Competitiveness Report published by the World Economic Forum, the UAE has succeeded. The UAE was ranked among the highest in the world for the quality of road, port, and airport infrastructure. The road index quality places UAE in first place globally. Airports are ranked high at #3 and ports #4 worldwide. The quality is measured by extensiveness and condition of infrastructure.

Within the last ten years, railways have been introduced to the UAE as part of the country's transportation infrastructure initiative. The Dubai Metro was first introduced, followed by the Etihad Rail project, which plans to connect the Emirates. In future stages, this rail network will connect Abu Dhabi to the Khalifa Port and the Industrial City of Abu Dhabi (ICAD), Mussafah.

Public transport in Abu Dhabi

Taxis

Taxis are the most widely used mode of public transportation in the UAE. This is because they are plentiful and affordable, making it easy to get around Abu Dhabi. The Integrated Transport Center (ITC) regulated 6,147 taxis in Abu Dhabi in 2018. By the end of 2018, more than 1,000 taxis in the emirate went green. Hybrid vehicles, using a combination of traditional fuel and electric power, allowed the taxis to be more fuel efficient.

Silver taxis with yellow roof signs are easily recognizable as being operated by authorized taxi companies. Pink taxis, driven by women, have also been introduced in Abu Dhabi. These are exclusively for female passengers and children under the age of ten.

Bus transportation

For over 10 years, public buses have been operated by Abu Dhabi's Department of Transport (DoT). Routes serve the intercity, Abu Dhabi region, Eastern region, and Al Dhafra. Buses also connect to other emirates.

Abu Dhabi has the second largest bus network in the UAE, second only to Dubai. Over 50 million passengers have taken advantage of the bus system. Abu Dhabi's bus service provides transportation to more than 170,000 commuters on a daily basis.

The DoT operates more than 800 buses. The

ITC announced there will be 40 new minivans and buses added in October 2019. This is part of the development project to purchase 327 new buses, costing AED473 million.

The additional buses are expected to ease congestion and improve travel accessibility by reducing the number of private vehicles on the roads. Adding more bus routes will also encourage the use of public transport. Buses also have the benefit of being reliable, modern, and air conditioned for maximum comfort.

Public transport buses are cost effective. The Hafilat smart card can be used for easy and convenient payment. Fares are automatically calculated based on distance traveled, another convenience for travelers.

Ferry services

Delma Island can be easily reached by bus or ferry. The Abu Dhabi ferry service now has two ferries that connect Delma Island to the mainland of Abu Dhabi. Prior to August 2019, the only ferry to the Island was through Mugharag Port. Now, a second ferry is also available through Jebel Al Dhanna. Both ferries transport passengers and vehicles daily.

The second port is part of a long-term plan to develop maritime transport infrastructure. Opening this to ferry service was necessary to accommodate a growing number of visitors to the island as it increasingly becomes a tourist destination.

Delma Port is a multipurpose port set up to handle passenger ferries, cargo, and fishing vessels. While Mugharag Port supports ferry and logistics connections, it is more commercially focused with heavy trucks, large vehicles, and general cargo handling facilities. Jebel Al Dhanna on the other hand is ideal for tourism and light vehicles.

Aviation

Abu Dhabi International Airport is one of the fastest growing airports in the world. In 2018, the airport welcomed over 21.3 million passengers and, according to JCDcaux Group, is expected to reach more than 30 million by 2020. This projected growth was due to the expansion of Etihad Airways. However, Etihad Airways has recently reported shrinking passenger and cargo volumes with lower 2018 volumes as compared to 2017. Etihad's struggles are contributing to reduced activity at Abu Dhabi International Airport and will likely inhibit the expected 2020 growth (see chart 1).

Traffic data has not been published since May 2018, at which point the company Abu Dhabi Airports reported that passenger numbers were down 11% year-on-year in April, aircraft movements were 14% lower,



50

hours are spent in traffic each year



1st

place in the world for road quality



6,147

taxis were regulated in Abu Dhabi in 2018, over 1,000 of which are green

and cargo volumes were down 5.5%.

In October 2019, Etihad Airways and Air Arabia announced plans to launch a new airline named Air Arabia Abu Dhabi. The new carrier will operate out of Abu Dhabi International Airport as Abu Dhabi's first low-cost passenger carrier. The new airline is expected to boost Etihad's turnaround plans, as it works to narrow three years of losses to turn profitable by 2023. Travel and tourism play a vital role in the economic growth of the region.

The Midfield Terminal Complex at the Abu Dhabi airport is being built as part of the Plan Abu Dhabi 2030. The airport continues to expand with the USD2.9-billion Midfield Terminal building. After two years of delays, the terminal is now set to open by the end of 2019. The construction project has been built to accommodate increasing passenger traffic; it is designed to serve up to 8,500 passengers per hour.

Besides Abu Dhabi International Airport, other airports in the emirate include Al Ain International Airport, known as Abu Dhabi's second international airport. Al Bateen Executive Airport is a private jet airport. Sir Bani Yas Airport serves tourist traveling to the island while Delma Airport is a small airport serving Delma Island.

Metro

In the future, travelers and locals alike will

benefit by the Abu Dhabi Metro. The first stage remains under construction and is expected to run 18 kilometers (km) from Mina Zayed Port to Abu Dhabi Airport. The metro rail system is to run approximately 131 km. It will be supported by tram and bus feeder services to connect Abu Dhabi International Airport with key business areas.

Ride & bike sharing

Careem, a ride sharing company service available in Abu Dhabi, has rapidly expanded across the region. The company, launched in Dubai in 2012, has rapidly expanded regionally and globally. The company has become a tech "unicorn"—a startup company that reached a USD1 billion-dollar market value. Earlier this year, Uber acquired Careem for USD3.1 billion, subject to regulatory approvals. Careem will operate about 300 cars in the capital, competing directly with taxis.

Bike sharing is an eco-friendly mode of transportation. This green option is ideal for short trips and those wishing to avoid street traffic. ADCB Bikeshare currently operates on Al Raha Beach and Yas Island with 11 stations and 75 bikes.

Tolls

One goal of the DoT is to reduce road congestion and to maintain the quality of roads in the city. The city of Abu Dhabi is

Chart 1: Abu Dhabi International Airport passenger growth



Source: JCDecaux Abu Dhabi

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connected to the mainland by four bridges: Al Maqta'a bridge, Mussafah bridge, Sheikh Zayed bridge, and Sheikh Khalifa bridge. Beginning in January 2020, tolls will be charged on each of these four bridges leading into the city of Abu Dhabi. The purpose of the tolls is to reduce road congestion and to keep traffic flowing smoothly. It will also encourage the use of more environmentally friendly methods of transport including public buses, carpooling, and electric cars.

The DoT has developed an integrated electronic system to monitor the movement of vehicles passing the toll areas. The electronic toll system is known as Salik. Collections are made automatically without stopping, as there are no toll booths or barriers. Motorist simply drive straight underneath the toll gate at normal speed, allowing the traffic to continue flowing smoothly.

While these are the first tolls in Abu Dhabi, tolls have been in place in Dubai since 2007. However, the systems in Dubai and Abu Dhabi are not compatible and operate independently from one another. The Dubai Salik tag will not work in Abu Dhabi. This is because Dubai tolls are collected using Salik sticker tags that attach to the front windshield of cars, while Abu Dhabi tolls are collected using registration plate number-recognition technology. Drivers here will be identified by their number plate. One of

the benefits of Abu Dhabi's number plate recognition structure is that there is no need to buy a Salik tag to stick to the windshield.

In Abu Dhabi, Salik tolls are cashless transactions that are deducted from prepaid user accounts linked to vehicles' number plates. Drivers will be charged electronically once they have a registered account in the Salik Abu Dhabi system. Abu Dhabi registered vehicles are already registered in the system; however, drivers registered outside of Abu Dhabi must set up an account before crossing a bridge into the city, or risk being fined.

Motorists crossing into the city will be charged AED4 per trip during peak hours from Saturday to Thursday. The reduced fare of AED2 will be charged during off-peak hours, and all day on Fridays and public holidays. These tolls will be incurred by private vehicles. In an effort to make public transportation more attractive, there are several exemptions to these tolls including ambulances, buses, armed forces, and civil defense vehicles, motorcycles, taxis, police, and Ministry of Interior vehicles. Additionally, electric vehicles will be exempt for the first two years.

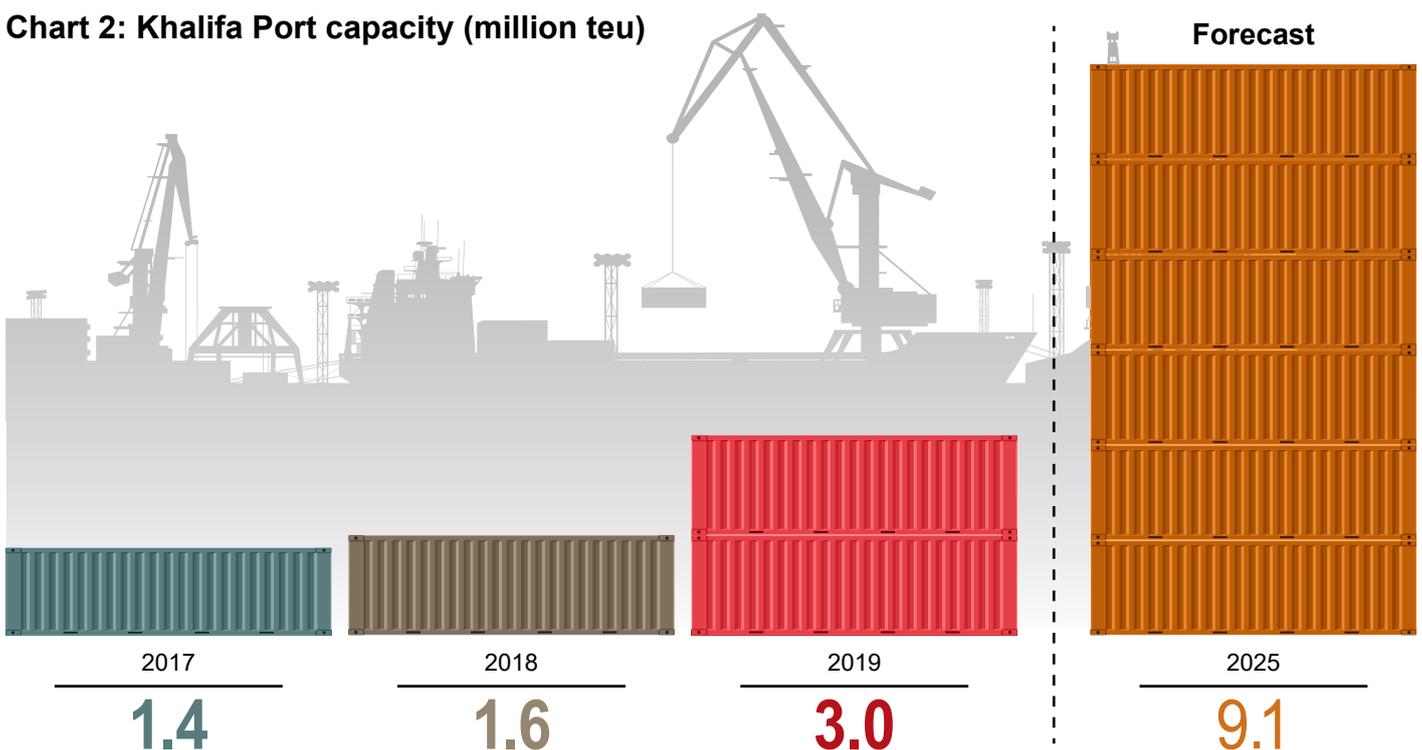
The tolls will affect Abu Dhabi residents driving private vehicles, as well as travelers from Dubai. Anyone traveling to Yas Island for leisure or shopping will also be affected.



170,000

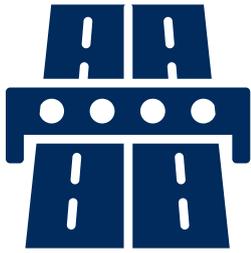
commuters use Abu Dhabi's bus service daily

Chart 2: Khalifa Port capacity (million teu)



Source: Abu Dhabi Ports

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Salik—the new electronic toll road system in Abu Dhabi was implemented October 2019.

Alternatively, the toll could be avoided by using public transport. There are no plans to introduce new tolls in Al Ain City or the Al Dhafra region.

Key transport projects in Abu Dhabi

Khalifa Port

The seven-year-old Khalifa Port's Khalifa Port Container Terminal (KPCT) was built with advanced port cargo handling and terminal operations management technology and features the region's first semi-automated container terminal. It has already been expanded and the expansion still continues. Through 2018 it mainly served as a new primary gateway container port for the UAE itself, handling a modest 1.6 million teu in 2018 (see chart 2).

In December 2018, the Chinese COSCO SHIPPING Ports (the container terminal operating company of China's container shipping company, COSCO SHIPPING) signed a long-term lease with Abu Dhabi Ports to use Khalifa as the Middle Eastern regional hub for COSCO's global network of 36 ports as part of China's Belt and Road Initiative. COSCO anticipates increasing Khalifa Port container throughput volumes to 3 million teu this year and intends to build capacity to handle up to 9 million teu in the future.

However, within the UAE, Khalifa Port competes for container cargo as well as transshipment container cargo business with other ports. The port of Jebel Ali in Dubai is by far the largest volume regional container port. Khalifa Port also competes to some degree with the Middle Eastern container ports of Salalah in Oman, and the Jeddah Islamic Port (JIP) and King Abdullah Port (KAP) in Saudi Arabia.

Container port cargo traffic moves by truck throughout Abu Dhabi and within the rest of the UAE. Port operations are run quite efficiently, more efficiently in fact than container terminals in North America and

Europe that are older and use less advanced technology. The global benchmarks for container port operations remain in the larger Asian container ports such as in Shanghai and Singapore.

Abu Dhabi International Airport

On the air cargo side, Abu Dhabi International Airport, as the Etihad Airlines hub, is the second largest in the UAE after Dubai International Airport. Dubai handles more cargo tonnage (and passengers) because it is the hub of Emirates Airlines.

As the Etihad hub, there is air cargo transshipment at the Abu Dhabi airport both between dedicated air cargo aircraft and belly cargo space on the passenger planes all connecting in Abu Dhabi. This provides an extensive international network for air cargo that benefits Abu Dhabi with greater direct route options than non-global hub airports.

Etihad Rail

Etihad Rail is relatively new, and eventually is intended to be a national freight railroad. It is being built in stages, most likely by Chinese companies, with design standards using standard gauge track and advanced train network control technology.

The railroads' first phase opened three years ago and is being used to haul granulated sulfur 264 km from the gas fields at Shah and Habshan to the port of Ruwais for export.

An agreement has been signed by the UAE Ministry of Finance and the Abu Dhabi Department of Finance for the financing of stage two of the rail network. Once complete, stage two will improve the transport and shipping sector by linking ports and manufacturing centers.

Recommendations

Air cargo

The Abu Dhabi International airport is



current with the international air cargo industry's adoption of the electronic Air Waybill (E-AWB) that has replaced paper air cargo transaction documentation internationally within the last few years. Etihad participates in the International Air Transport Association's Cargo iQ initiative that defines quality standards for air cargo services, to improve management of air cargo transportation.

The Abu Dhabi aviation sector should continue its involvement in the international standards bodies that work together on developing and implementing technology-based, improved-management procedures for trade and logistics.

Ports

Another recommendation is for Abu Dhabi to continuously invest in evolving transportation and logistics technologies including the evolving digitization of import/export management processes and the increases in ability for shippers to monitor and track their own shipments ("shipping transparency"). For example, container shipping line Mearsk has partnered with IBM on TradeLens, a blockchain-based integrated international container shipping platform and transactions-data exchange. It is only about two years old but has gained traction with many major container ports and several other container vessel-operating companies.

In 2018, Maqta Gateway LLC, a subsidiary of Abu Dhabi Ports, was the first in the UAE to deploy a blockchain solution. The Maqta Gateway, together the Port of Antwerp in Belgium, is piloting a blockchain project called Silsal to provide full cargo visibility. The project is also expected to improve trade flow and supply chains between the two countries.

Abu Dhabi should maximize the potential benefits of blockchain technology, such as exchange, identification, and verification of cargo documents and certificates between

the respective ports. Khalifa Port would benefit as a participant in this state-of-the-art practice. Not only would this further reduce the amount of paperwork involved in handling international shipments, it would also reduce costs and add value to customers.

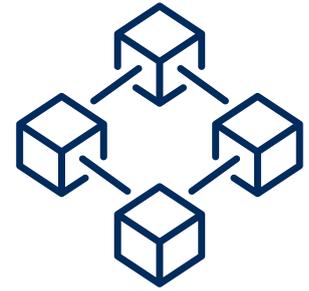
Long-term strategy

A strong infrastructure is key to a strong and healthy economy. In June 2018, His Highness Sheikh Mohamed bin Zayed Al Nahyan Crown Prince of Abu Dhabi, and Deputy Supreme Commander of the UAE Armed Forces, Chairman of the Executive Council announced an economic stimulus package of AED50 billion (USD13.6 billion) to promote growth. The three-year plan will distribute more money toward transportation and is a welcome and strong support for the transport sector.

More government funding could help Abu Dhabi's competitive position in areas where there is more potential for discretionary use of their facilities, namely transshipped cargo through the seaport and transshipped cargo and passengers changing planes at the airport.

Besides the infrastructure capital and facility-operating investments that can reduce unit costs and increase reliability for users of those facilities, there are institutional and administrative steps the government could take. The sorts of measures that are recommended to improve long-term strategies include customs processing times, the licensing and tariffs associated with international shipments, and commodity-specific processes such as food and pharma inspections and permitting.

Government participation in international standard bodies that oversee and facilitate international transportation and logistics is also recommended. The international dimension is so critical to Abu Dhabi due to the relatively small size of the domestic market compared to cross-border trade in most commodities. ■



Silsal project—the first blockchain-based solution



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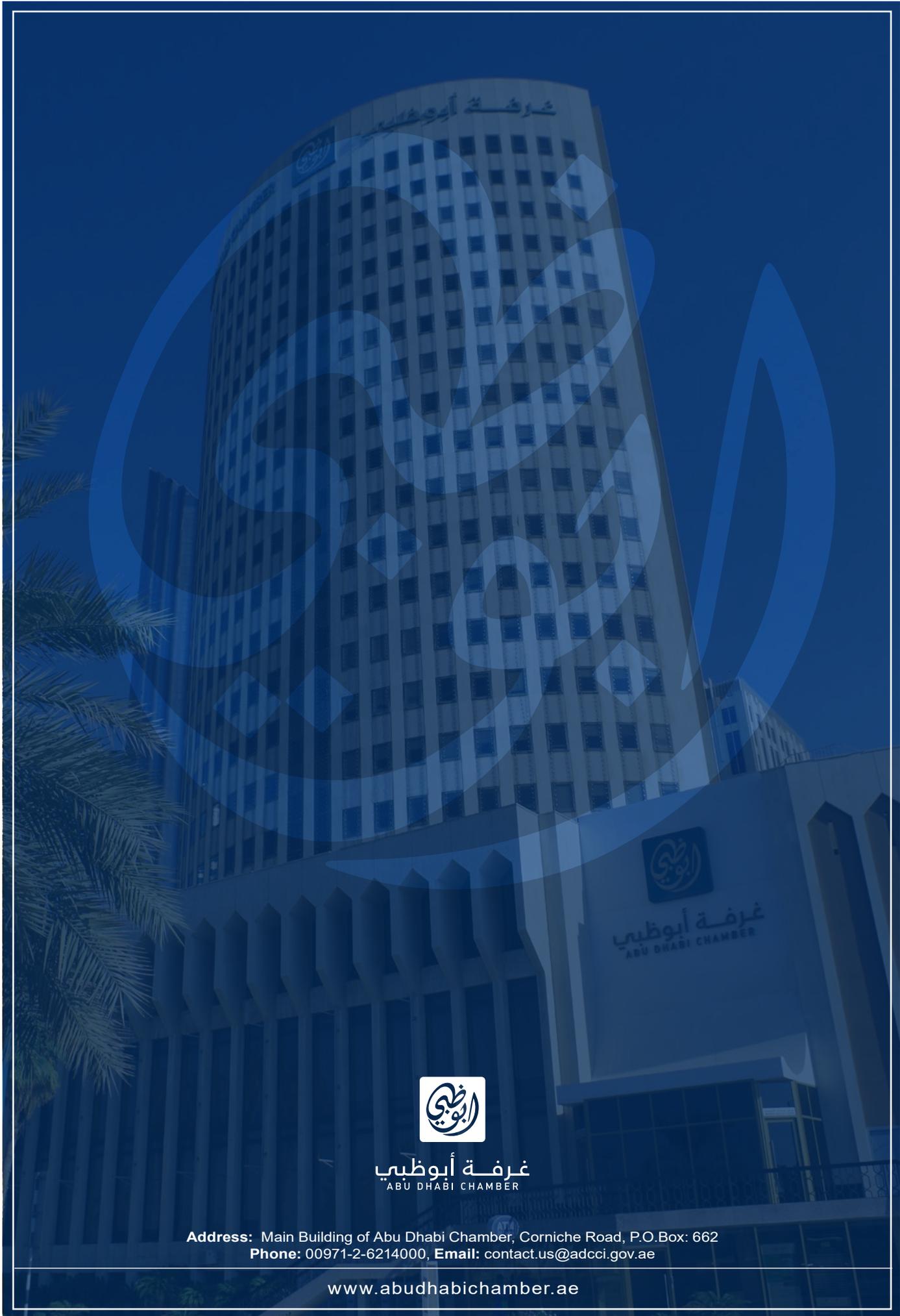
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