Developing City Logistics: Characteristics and underlying factors

- Case : City of Dubaï 2016-2019 -

تنمية اللوجستيك في المدن: الخصائص و العوامل الأساسية
دراسة حالة دبي 2016- 2019

Dr. Yacine BENZIDANE[1], Pr. Hadj BENZIDANE[2]
[1]University of Mostaganem, yacine.benzidane@uinv-mosta.dz
[2]University of Mostaganem, hadj.benzidane@univ-mosta.dz

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Abstract:

City logistics is likely to play an increasing key role in the future years. This paper contributes to the field with a structured tool which not only states the main relevant aspect but also the mutual impactful influences of city logistics development. More specifically, this research aims at providing an overview of the different elements acting in the city logistics context, their interactions and the consequent reciprocal influences. City logistics activities, functions and values were thoroughly investigated with two approaches: firstly, theoretically and then statisticly via case study of Dubai.

Keywords: Logistics, City logistics, Characteristics, Factors, Dubaï
Jel Classification Codes: O53, Q59, R19

ملخص:

من المرجح أن تلعب الخدمات اللوجستية في المدن دوراً رئيسياً متزايدا في السنوات المقبلة .وتساهم هذه الورقة في هذا المجال بأداة منظمة لا تذكر فقط الجانب الرئيسي ذي الصلة، بل أيضا التأثيرات المتبادلة المؤثرة على تطوير النقل والإمداد في المدن. وبشكل أكثر تحديداً، يهدف هذا البحث إلى تقديم نظرة عامة على العناصر المختلفة التي تعمل في سياق النقل والإمداد في المدينة، وتفاعلاتها، وما يترتب على ذلك من تأثيرات متبادلة. كما تم إجراء دراسة شاملة في الأنشطة والوظائف والقيم اللوجستية للمدينة من خلال نهجين: أولاً، نظرياً ثم إحصائيا من خلال دراسة حالة في دبي.

كلمات مفتاحية: اللوجستيك، المدينة اللوجستية، الخصائص، العوامل، دبي.
تصنيف JEL : O53, Q59, R19

Corresponding author: Yacine BENZIDANE, yacine.benzidane@uinv-mosta.dz

1. Introduction :

With an efficient transport system essential for sustained economic prosperity, cities are now facing the global competition for investment and trade. Urban logistics has become central to the competitiveness of large cities and the ecological transition of distribution activities (EDITO, 2019, p4).

Therefore, the efficient and environment friendly logistics systems help cities become more competitive in terms of economic development (EllCHl TAN1GUCH et al, 2001, p2).

New urban logistics companies have emerged over the past decade in Asia, Europe and the United States, and more recently in all urban regions of the world, driven by digital revolutions (EDITO, 2019, p5).

Therefore our main question that we have tried to address through this paper is: How does Dubaï become a city logistics and what are its characteristics and factors?. This above main question leads us to the following sub questions:

- What is city logistics?
– What are their characteristics and stakeholders?
- What are the core sectors and logistics activities in Dubaï?

2. Logistics and city logistics :

2.1. Logistics :

Logistics, as defined by the Council of Logistics Management CLM, is "that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customers' requirements."(Jaume Barceló et all, 2017, p2).

"Logistics" is currently understood to target the analysis, planning, and management of integrated and coordinated physical, informational, and decisional flows within a potentially multi-partner value network (A. BENJELLOUN & T. Gabriel CRAINIC, 2009, p44).

A logistic system spans three dimensions (Nasser Saidi et al, p10):

a) The spatial or regional dimension (i.e. the transportation problem),
b) The vertical dimension (flow of commodities from the initial use of resources to the manufacturing of final goods demanded by the consumer), and c) the time dimension (inventory and warehouse of merchandise and parts).

The key features of a logistics hub were suggested by Fernandes (2009) as being (Michael STOCKDALE, 2015, p5):

- A strategic location along major shipping routes

- World class air and sea ports
- Efficient and adequate logistics infrastructure
- Ability to provide value added services
- Reasonable charges and cost effectiveness
- Limited government bureaucracy.

Elements that are required for setting up of a successful regional logistics hub were identified by Al Hajiri (1999), these include (C. Fernandes & G. Rodrigues, 2009, p79):

- ✓ Adequate multi-modal transfer systems
- ✓ Good telecommunications systems
- ✓ Reasonable port charges
- ✓ Adequate cargo and container handling facilities
- ✓ Numerous berths and container terminals of various commodities, including dangerous goods
- ✓ Available rail and road connections to link the hub with local consumer and industrial area.

Speranza (2016) sees logistics as business function that makes goods as well as people available where, when and in quantities needed. Oppositely, transportation management is more a business process (Klara LJUBI, 2017, p4).

2.2. City logistics :

Diziain, Ripert and Dablanc (2012) state that ‘’logistics is vital to the life of cities and their residents’’ (Sabrina TRAFELA, 2013, p3). According to Taniguchi et al. (1999), city logistics are defined as ―…the process for totally optimizing the logistics and transport activities by private companies with the support of advanced information systems in urban areas (H. He & H. Cheng, 2012, p11282).

Urban logistics, usually known as City logistics, according to Taniguchi (2001), is based on the improvement and enhancement of the activities of private organization logistics in urban areas, whereas the existing flows, from the point of view of traffic, traffic congestion and the consequences for the economy (Débora Borges Tavares et al, p4). A List of city logistics definitions is below.

Table 01: List of city logistics definitions

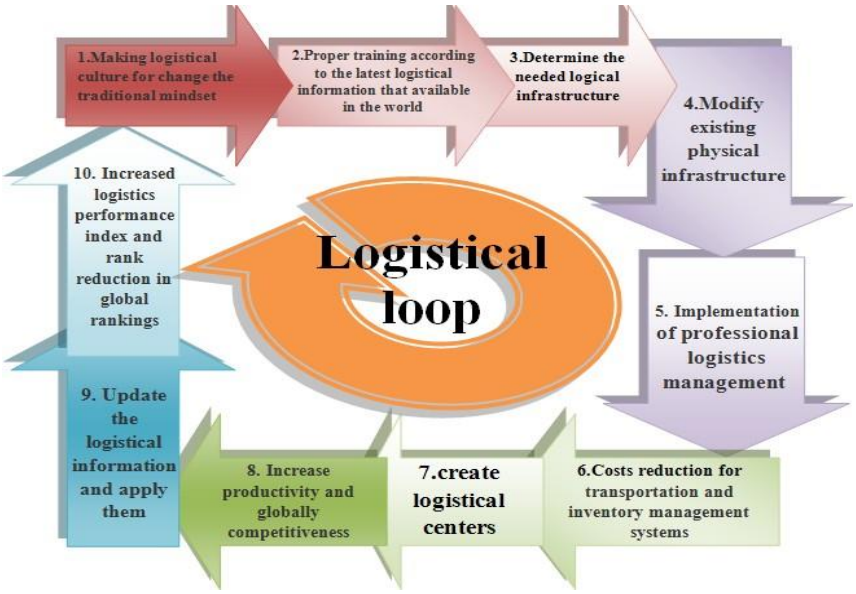
Author	Description
Zentes (1994)	A cross-company model of distribution and reverse logistics, aiming at maximizing economic benefits as well as optimizing the ecological impacts.
Wittenbrink (1995)	All the operative and dispositive activities in a city, which are customer-oriented in accordance with the goods' type, quantity and volume together with environmental factors (in a wider sense), and intend to provide an efficient supply of real goods (as well as reverse logistics services such as waste disposal).
OECD (1996)	Measures for maximizing the loading factor of vehicles and minimizing the number of vehicles per km, aiming at making goods distribution in the cities more environmentally sustainable.
Kaupp (1997a)	The planning, monitoring and controlling of logistical processes in a cross-company logistics system aligned with economic and environmental objectives. The major function of city logistics is the cooperative production of logistics services in order to ensure the requirement of a city or metropolitan area in relation to goods supply and disposal.
Visser (1999)	A service based on co-operation between companies that pool their distribution trips on a voluntary basis. City logistics is a combination of terminal consolidation and route consolidation.
Taniguchi/ Thompson/ Yamada (1999)	The process of totally optimizing the logistics and transport activities by private companies in urban areas while considering the traffic environment, traffic congestion and energy consumption within the framework of a market economy.
Benjelloun (2009)	City logistics aims to reduce the nuisances associated with freight transportation while supporting the sustainable development of urban areas. It proceeds generally through the coordination of shippers, carriers and movements, and the consolidation of loads of different customers and carriers in the same environment-friendly vehicles.

Source: M.Sc. Yanqiang MA (2014), City Logistics in China – An Empirical Study from An Emerging-Market-Economy Country, p11, Technische Universität Darmstadt – Germany, in https://www.pdfdrive.com/city-logistics-in-china-e51141658.html

City Logistics usually includes one or more of the following initiatives (EllCHl TANIGUCH et al, 2001, p7):

- ✓ Advanced information systems
- ✓ Co-operative freight transport systems
- ✓ Public logistics terminals
- ✓ Load factor controls
- ✓ Underground freight transport systems

Figure 01: Conceptual model of logistics city



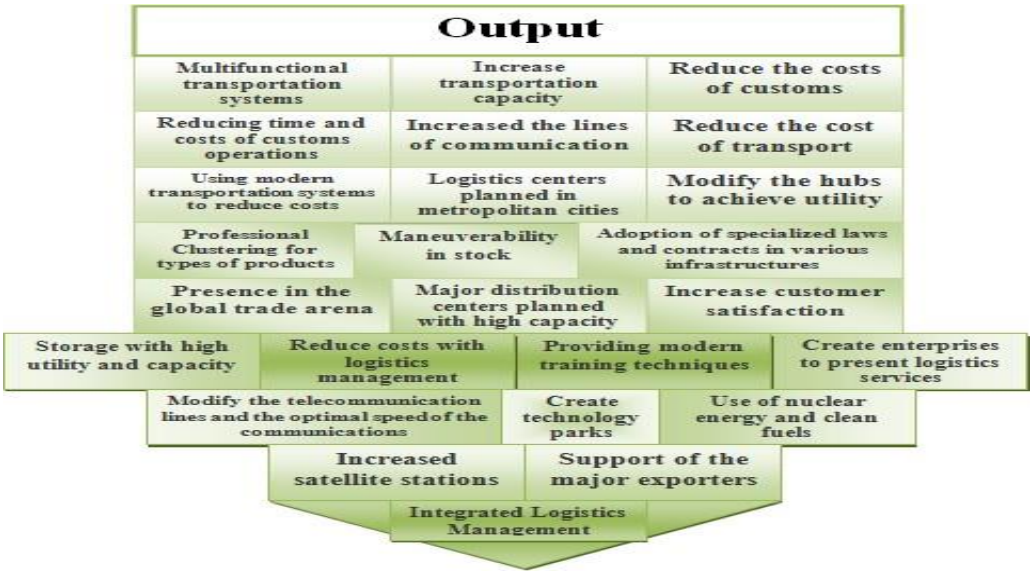
Source : Kamran Yeganegi & Elham Eivazi, Conceptual Model of Logistics City, p2446, Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management Istanbul, Turkey, July 3 – 6, 2012, in http://ieomsociety.org/ieom2012/pdfs/573.pdf

City logistics is also referred to as urban (freight) distribution, last mile logistics, urban logistics, or city distribution (M. Savelsbergh & T. Van Woensel, 2016, p1). City logistics represents any service provision contributing to an optimized management of the movement of goods in cities and providing innovative response to customer demands (Laetitia DABLANC, 2015, p9).

City logistics takes place in the areas with high buildings density and population with high demand for goods and services (Melo et al. 2014). There are several factors contributing to its development (Klara LJUBI, 2017).

Urban logistics operations consist of the set of activities related with the distribution of goods and provision of services within an urban area (Jaume Barceló et al, 2017, p3). (See figure)

Figure 02: Activities that will be exist after the creation of Logistics city



Source: Kamran Yeganegi & Elham Eivazi, p2447, Op Cit.

3. The aim and objectives of city logistics :

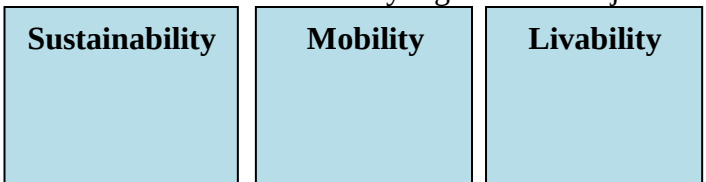
Many cities have started to understand and address the challenges associated with passenger mobility issues by developing urban mobility visions and strategies for passenger transportation at regional or city level (F. J. Van Audenhove et al, 2015, p3).

Therefore, urban logistics aims to improve the flow of society's needs in an urban context, whether in large cities or small towns, focusing on accessibility, responsiveness and cost reduction for everyone involved, both for the public and the private sectors (Débora Borges Tavares et al, p4).

The aim of City Logistics is to globally optimize logistics systems within an urban area by considering the costs and benefits of schemes to the public as well as the private sector (EllCHl TANIGUCH et al, 2001, p3). In logistics city, multifunctional activities cause to increase speed of tasks in all of the levels. (K. Yeganegi & E. Eivazi, 2012, p2447).

City logistics has multiple objectives, relating to mobility; sustainability, livability, and resilience (see figure03).

Figure 03: Structure of vision for city logistics and objectives



Global competitiveness
Efficiency
Environment friendliness
Congestion alleviation
Security
Safety
Energy conservation
Labour force

Source: https://image3.slideserve.com/6535847/structure-of-visions-for-city-logistics-n.jpg

The objectives of the city logistics concept are therefore summarized below (M.Sc. Yanqiang MA, 2014, p12):

- ✓ Private sector: maximize the utilization of all logistical resources to satisfy a city's demand for high-qualified logistics services; reduce the total logistics cost; shorten delivery times; and ensure a sustainable goods supply for citizens.
- ✓ Public sector: minimize the negative effects caused by the logistical activities within urban areas and improve the city living environment.
- ✓ City as a whole: help achieve the sustainability of urban economic growth through avoiding unnecessary goods traffic, introducing innovative logistical technology, and optimizing the logistics process within a city.

4. The influence factors of city logistics development

Whereas the private sector usually emphasizes economic efficiencies, public authorities have a strong interest in the well-being of the citizens (Adeline Heitz, 2015, p3). Urban logistics influences the economy, society and environment in multiple ways.

In city logistics, sustainable logistics has an important role in urban transport for the improvement of its management, mobility, user satisfaction and, essentially, the environment (D. B. Tavares et al, p2).

In urban logistics, dashboards are starting to be deployed in a unified way (Gonzalez-Feliu, 2018), by adapting the indicators of sustainable supply-chain management (Morana, 2014) to the urban logistics context, and in an interactive and group-decision perspective (Morana and Gonzalez-Feliu, 2015), since various stakeholders are involved (Jesús González-Feliu, 2018, p138) since the influence factors of city logistics development are multiple. (see table02)

Table 02: The influence factors of city logistics development.

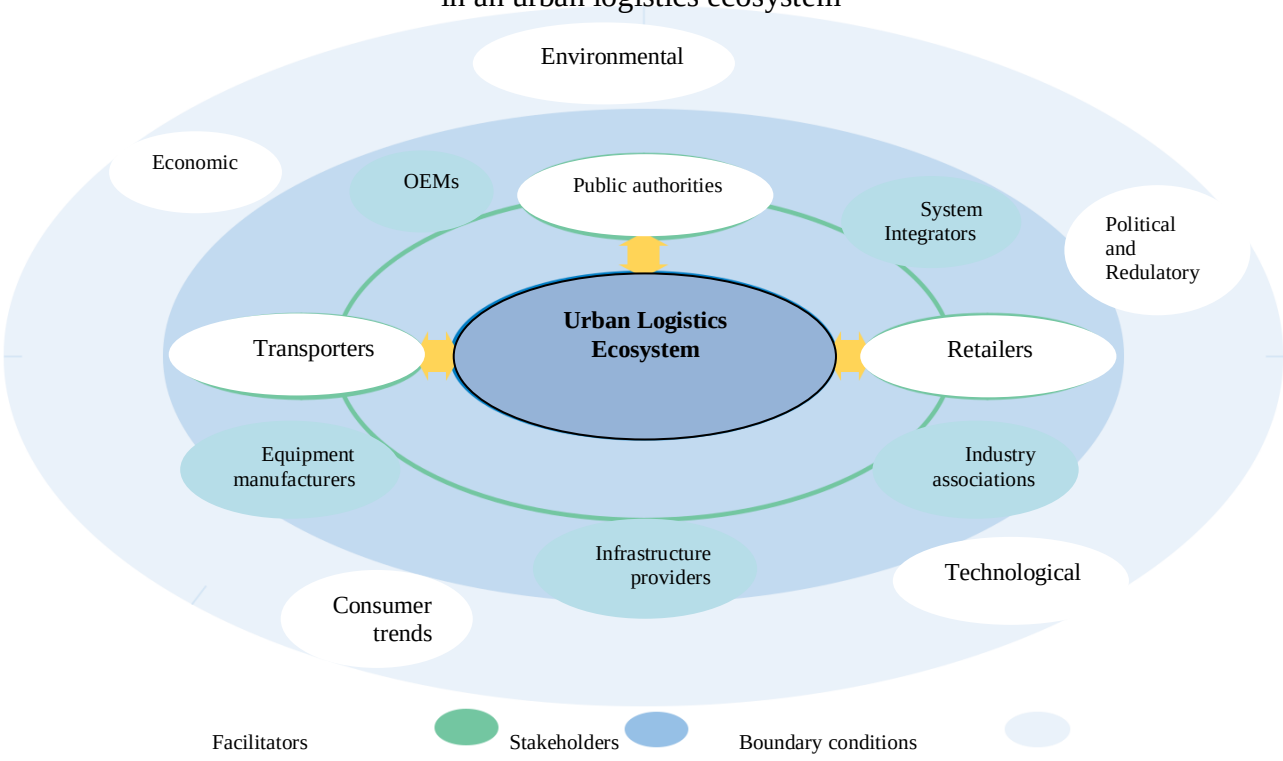
Influence aspects	**Specific factors**
Logistics infrastructure	Transport route network Use of train or underground system Use of ship terminal Logistics centers Hub for air freight Human resources Information and communications infrastructure
Environmental effects	Fuel consumed Pollutant emissions Freight-vehicle related accidents Traffic congestion
Governance measures	Road pricing Load factor controls Access time windows Noise regulations Access according to weight and volume
Logistic service level	On-time deliveries Logistics cost The rate of goods defect Customer satisfaction The reliability of transportation

Source : Hongmei He & Haifang Cheng (2012), Analyzing key influence factors of city logistics development using the fuzzy decision making trial and evaluation laboratory (DEMATEL) method, African Journal of Business Management Vol.6 (45), p11284, in https://academicjournals.org/article/article1380553881_He%20and%20Cheng.pdf

5. Stakeholders in an urban logistics ecosystem :

One of the aspects that makes the effective implementation of the City Logistics projects a complex task is the presence of a high number of stakeholders involved (i.e. traders, transporters, traditional couriers, innovative and “green” transport companies) with contrasting interests (Alexandra Lagorio et al, 2017, p7284).

Figure 04: Stakeholders, facilitators and boundary conditions in an urban logistics ecosystem



Source: François-Joseph Van Audenhove et al (2015), Urban Logistics, How to unlock value from last mile delivery for cities, transporters and retailers, p3, in www.adl.com/UrbanLogistics

All of the involved stakeholders can be grouped into three major types of public authorities, professionals and impactees, whose decision making directly or indirectly impacts the city logistics operation. (see table03)

Table 03: City logistics stakeholders and their interests

Stakeholder	Items	Interest
Public authorities	National/regional governments	Maximize net economic benefits
		Minimize the external impacts of city logistics
	Local governments (e.g., city authorities)	Improvement of the efficiency and effectiveness of city
		logistics
		Urban economic growth
		Urban sustainable development
		Investment and business

Professionals	Goods receivers/consignees (business and private ones)	Logistics services improvement
		Costs reduction
		Market growth
	Shippers/suppliers (e.g., manufacturers, retailers, wholesalers or their logistics companies)	Costs reduction
		Accessibility to the customers
		Market growth
	Carriers (e.g., logistics companies)	Freedom of provision of efficient and effective distribution
		services with minimum restrictions
		Accessibility to the customers
		Cost effectiveness
		Market growth
	Operators of logistics facilities (e.g., logistics property developers, terminal operators)	Involvement in city logistics programming
		Supply of facility services
Impactees	Inhabitants	Negative external impacts e.g., noise, congestion, air pollution, etc.
	Visitors/shoppers	Products and services
		Negative external impacts e.g., noise, congestion, air pollution, etc.

Source: M.Sc. Yanqiang MA (2014), City Logistics in China, p30, Op Cit.

- ✓ Public authorities attempt to enhance a city's attractiveness for both business and individuals.
- ✓ The professionals are active stakeholders within a city logistics system.
- ✓ Impactees are the inhabitants or visitors who work, live or shop in or visit a city.

6. City logistics of Dubaï :

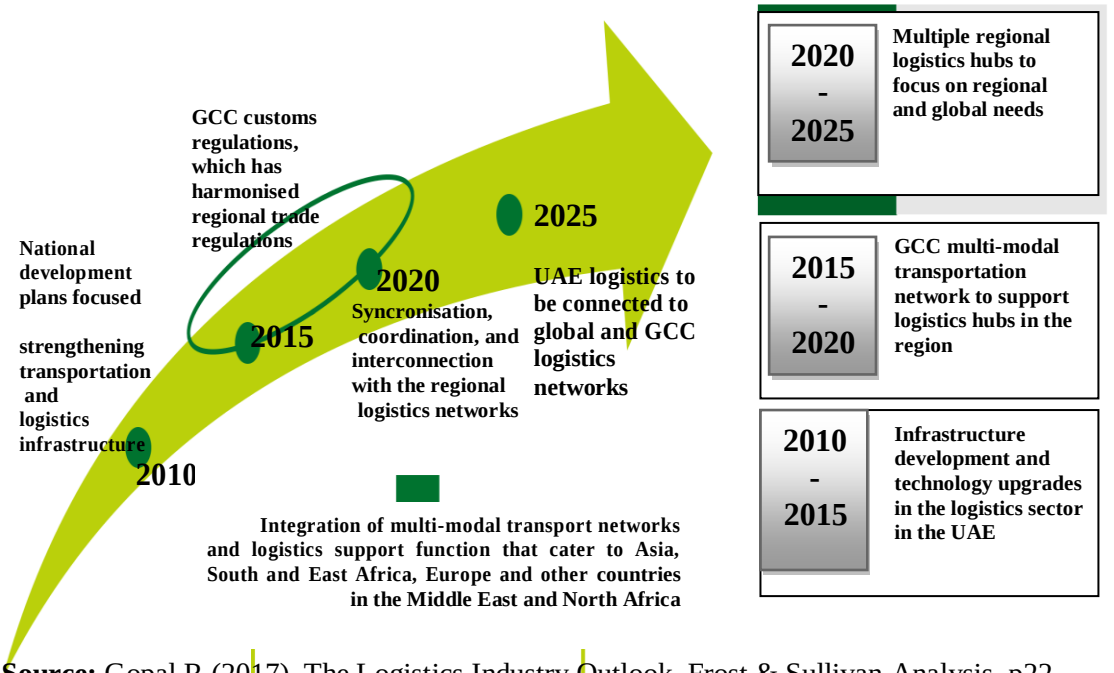
6.1. UAE and logistics :

The logistics market in the UAE is made up of ground transport; air and sea freight modes; warehousing; and supply chain management services. It has witnessed high growth in recent years achieving a total value exceeding US$30 billion by the end of 2013 -Transport Intelligence 2014- (Michael STOCKDALE, 2015, p7).

By 2025, 63.5 million trucks are expected to be connected globally. Digital freight solutions and autonomous technologies will transform the trucking industry into a smarter, efficient, and productive sector (Gopal R, 2017, p18).

Investments relating to the economic diversification efforts of the Emirates are driven by Abu Dhabi's Economic Vision 2030 and the United Arab Emirates (UAE) Vision 2021 (Gopal R, 2017, p16).

Figure 05: Logistics Industry: Sector Developments, UAE, 2010–2025



Source: Gopal R (2017), The Logistics Industry Outlook, Frost & Sullivan Analysis, p22, in http://www.sclarabia.com/2017/presentation/Gopal%20R,%20Transportation%20&%20Logistics%20Practice.pdf

Table 04: Logistics Performance Index (LPI) of UAE - 2016

Country	LPI Rank	LPI Score	Customs	Customs	Infrastr-ucture	Infrastr-ucture	Internati-onal shipments	Internati-onal shipments	Logistics competence	Logistics competence	Tracking & tracing	Tracking & tracing
Germany	1	4.20	1	4.09	1	4.37	4	3.86	1	4.31	2	4.24
Sweden	2	4.05	2	4.05	3	4.24	2	3.92	10	3.98	17	3.88
Belgium	3	4.04	14	3.66	14	3.98	1	3.99	2	4.13	9	4.05
Austria	4	4.03	12	3.71	5	4.18	3	3.88	6	4.08	7	4.09
Japan	5	4.03	3	3.99	2	4.25	14	3.59	4	4.09	10	4.05
Netherlands	6	4.02	5	3.92	4	4.21	11	3.68	5	4.09	11	4.02
Singapore	7	4.00	6	3.89	6	4.06	15	3.58	3	4.10	8	4.08
Denmark	8	3.99	4	3.92	17	3.96	19	3.53	9	4.01	3	4.18

United Kingdom	9	3.99	11	3.77	8	4.03	13	3.67	7	4.05	4	4.11
Finland	10	3.97	8	3.82	11	4.00	16	3.56	15	3.89	1	4.32
United Arab Emirates	11	3.96	15	3.63	10	4.02	5	3.85	13	3.92	13	3.96
Hong Kong, China	12	3.92	9	3.81	15	3.97	8	3.77	12	3.93	15	3.92
Switzerland	13	3.90	16	3.63	9	4.02	20	3.51	11	3.97	5	4.10

Source : The World Bank's Doing Business report, LPI 2016

The World Bank's Doing Business report ranked UAE among the top 10 reformers worldwide in 2008-09, lifting its overall ranking to 33 from 47 in the previous year, with a strong reduction in the cost of setting up a business due to the removal of minimum capital requirements for setting up a business.

Comparing to the previous period, according to the World Bank's Logistics Performance Index (LPI), the UAE ranked the highest among the Middle Eastern countries and 27th among 160 world nations in 2016. The UAE has shown the best performance in logistics among the six countries of the GCC including trade related institutions and regulations (LEE Kwon Hyung et al, 2016, p3).

6.2. Dubaï as a city logistics :

Dubaï, one of the seven Emirates in the UAE, is positioning itself as a world class integrated logistics hub (C. Fernandes & G. Rodrigues, 2009, p77).

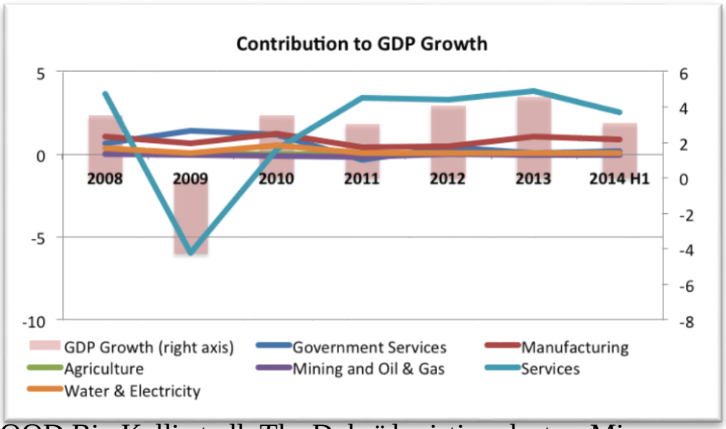
Dubai is home to some of the leading global companies in the field of transportation and logistics including DP World, Emirates Airlines Jebel Ali Free Zone (JAFZA) (C. Fernandes & G. Rodrigues, 2009, p77).

Figure 06: Dubaï as a logistics Hub for the Region

Source : MICHAEL Proffitt (2006), Dubaï World central, Logistics City, Dubaï – India's Air Cargo Gateway to World Markets, in https://slideplayer.com/slide/12215613/

Efforts to diversify the economy from oil focused on building up the transport and logistics sector, finance and tourism, and creating free trade zone clusters such as Media City to attract regional media companies to set up headquarters in Dubai (RAFEEF Ziadah , p186).

Figure 07: Contribution to GDP Growth



Source : ALANOOD Bin Kalli et all, The Dubaï logistics cluster, Microeconomics for competiteness, p8, in https://www.isc.hbs.edu/resources/courses/moc-course-at-harvard/Documents/pdf/student-projects/Dubai_Logistics_Cluster_2015.pdf

6.3. Dubaï: logistic activities and sectors

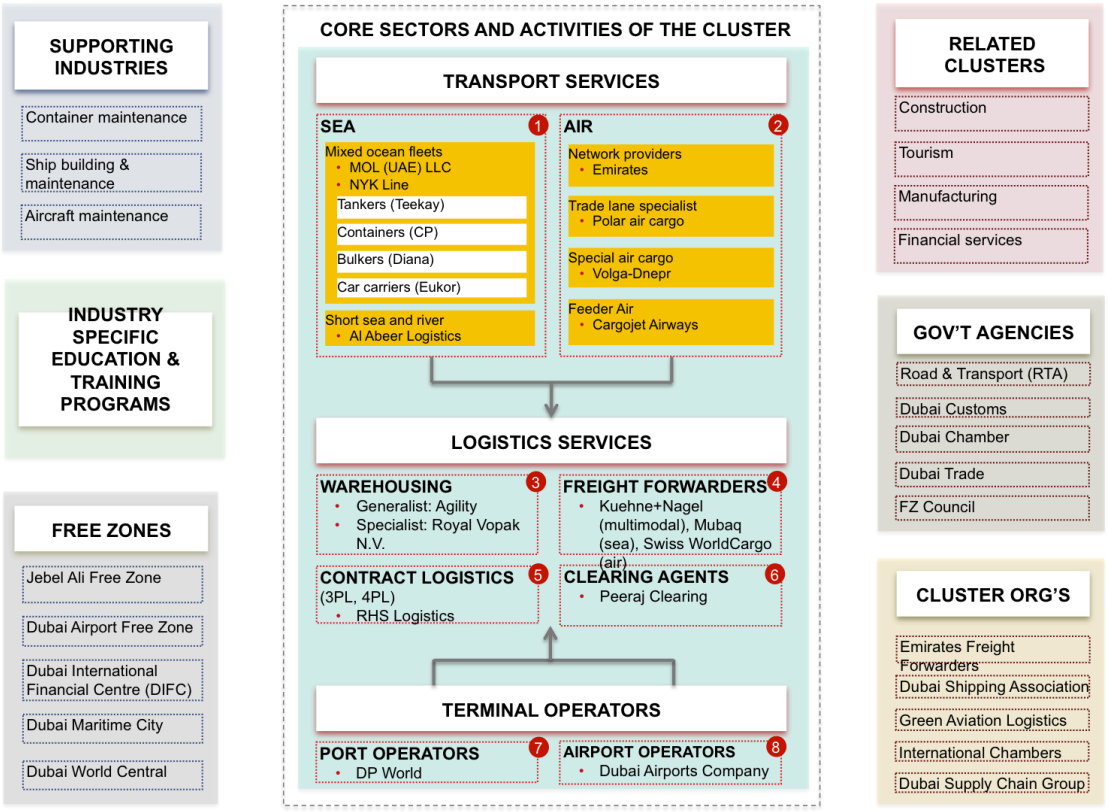
Dubai's location in the region provides access to a combined GDP of AED 13.2 trillion (USD 3.6 trillion) in an economy which has tripled in size of the past decade. It is home to nearly a quarter of the world's entire population, who are beginning to emerge from a much more consumer-led environment (Dubaï FDI, p4).

Dubaï is a gateway to the MENASA (Middle East, North Africa & South Asia) region due to:

- ✓ Mid-way between Asia and Europe
- ✓ Logistics Hub for Arabian Gulf
- ✓ Centre of trade for GCC, Indian sub-continent, Commonwealth of Independent States (CIS) and Africa
- ✓ Market access to the world's fastest growing developing countries
- ✓ Population access to over 2 billion within less than 4 hours flying time

Dubai's decision to foster and fortify its logistics cluster was made early on, as part of its larger diversification strategy (see figure08).

Figure 08: Core sectors and logistics activities in Dubaï

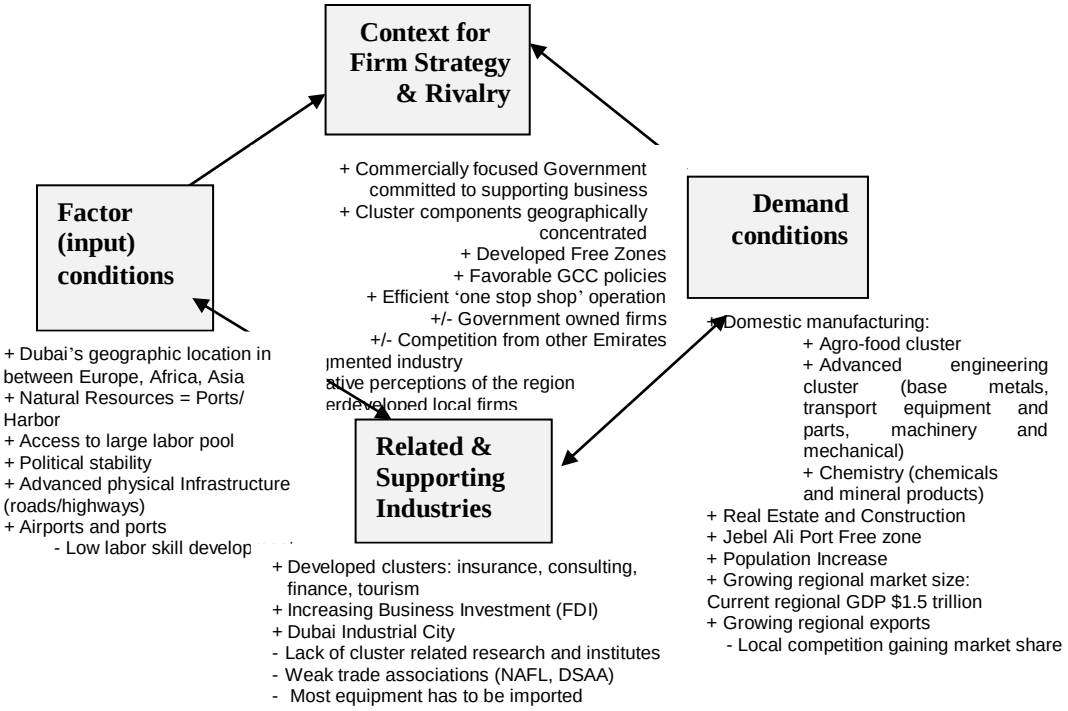


Source : ALANOOD Bin Kalli et all, p15, Op Cit.

Dubai's main economic sectors are retail trade, logistics, and real estate, all of which are dependent on immigrant labor (A. Bin Kalli et al, p8).

Dubai Airports seek to continuously increase passenger capacity at Dubai International beyond 75 million whilst laying out the plans to complete Maktoum International Airport with a passenger capacity 120 million people (Frank KNIGHT, 2013, p2).

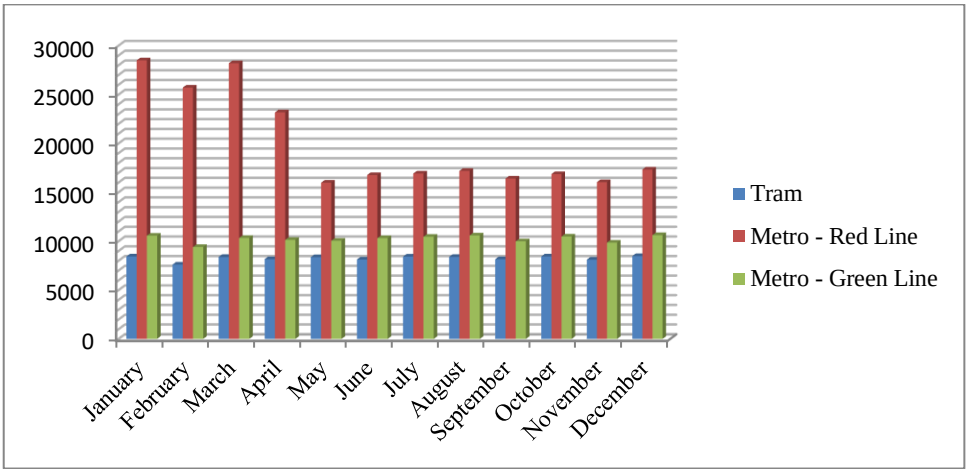
Figure 09: Transport and Logistics Cluster Diamond in UAE and Dubaï



Source : Zaid Ashai et al (2007), The Transport and Logistics Cluster in the United Arab Emirates, Microeconomics of Competitiveness, Group Project, p18, in https://www.isc.hbs.edu/resources/courses/moc-course-at-harvard/Documents/pdf/student-projects/UAE_TransportLogisticsCluster_2007.pdf

Dubai Logistics City (DLC) is an integrated logistics platform with all transport modes (see figure10), logistics and value added services. DLC is attached to the upcoming Dubai World Central International Airport and adjacent to the JAFZA (Zaid Ashai et al, 2007, p18).

Figure 10: Number of Metro and Tram Trips by Months - Dubaï -2019



Source: Dubaï Statistics Center DSC in
https://www.dsc.gov.ae/Report/DSC_SYB_2019_11%20_%2010.pdf

Dubai Ports World (DP World) as logistics space of networked infrastructure, free trade zones, logistics hubs through which commodities circulate and transform before reaching consumers (RAFEEF Ziadah, 2018, p182).

Figure 11: Containers Handled at Dubaï Ports* (2017-2019)
(Unit: 20 Foot Equivalent Units)

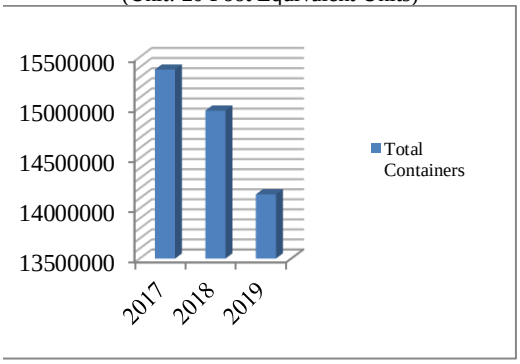
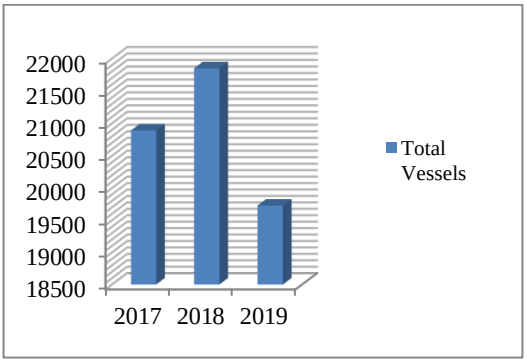


Figure12 : Number of Vessels Calling to Dubaï Ports (2017-2019)



* Including discharged and Loaded and additional containers shifting on shipboard that occur during normal operations

Source: Dubaï Statistics Center DSC in
https://www.dsc.gov.ae/Report/DSC_SYB_2019_11%20_%2009.pdf

Dubai's transport and logistics cluster has benefited greatly from Dubai's factor conditions – in particular its natural assets, advanced physical infrastructure, and

major seaports and airports (see figure13 & 14), which are all in close geographical proximity to one another (Zaid Ashai et al, 2007, p19).

Figure 13: Aircrafts' Movement at Dubai International Airport by Nature (2017 - 2019)

Figure 13-1 : Scheduled Flights

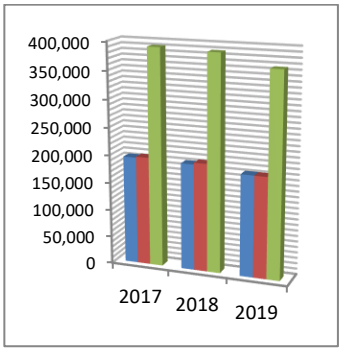


Figure 13-2: Non - Scheduled Flights

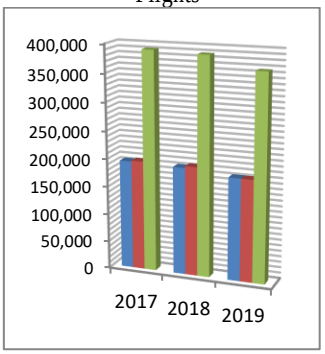
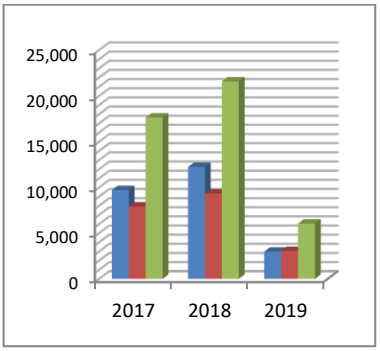


Figure 13-3 : Other

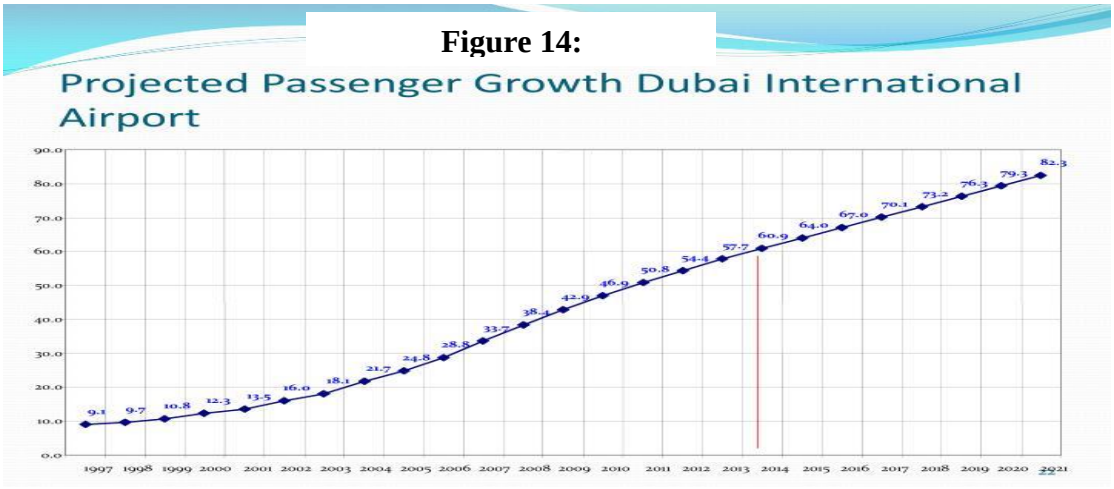


Arrived Departed Total

Source: Dubaï Statistics Center DSC, in https://www.dsc.gov.ae/Report/DSC_SYB_2019_11%20_%2001.pdf

Airports are being developed to step into the global hub role, including Dubai's Al-Maktoum International Airport, the world's most ambitious logistics project.

Figure 14:



Source: Michael PROFFITT (2013), Logistics Cities World Forum, p22, in https://fr.slideserve.com/iolana/logistics-cities-world-forum-powerpoint-ppt-presentation

Its low logistics costs and superb infrastructure (ranked number one in the Middle East by the World Bank) have led to massive foreign investment (Dubaï FDI, p2).

7. Conclusion :

Dubai is widely regarded as having some of the best logistic facilities in the world. Its location, both geographic and strategic, is a natural business gateway between East and West and has been an essential element of trade routes between Asia, Africa, Europe and beyond for centuries. Dubai is an important point for global logistics with the presence of a high number of stakeholders involved (i.e. traders, transporters, traditional couriers, innovative and "green" transport companies).

The aim is to optimize logistics systems within an urban area by considering the costs and benefits of schemes to the public as well as the private sector since the influence factors of city logistics development are multiple (logistics infrastructure, environmental effects, governance measures, and logistic service level). We have reached other several conclusions depending on what previously has been shown which are listed below.

- ✓ Development of new logistics and supply chain concepts and innovation for a more competitive and sustainable industry and more success.
- ✓ Dubaï, by becoming a leader in logistics, aims to accelerate the development of city logistics, competitive and sustainable supply chains and logistics operations..
- ✓ Other relevant stakeholders: transport companies, terminal operators, support industry and research and education can effect the policy of city development (economically, environmental and socially).

8. Bibliography list:

1. Abderrahim BENJELLOUN & Teodor Gabriel CRAINIC (2009), Trends, challenges, and perspectives in city logistics, Simulating the impact of new australian "bi-modal" urban freight terminals, p44, in https://www.researchgate.net/publication/228613249_City_Logistics/link/00b49517bd2991a049000000/download

2. Adeline Heitz (2015), Paris, Urban Laboratory for Urban Logistics, Feasibility of Consolidated Freight Deliveries in Cities; andAlternatives for More Efficient Use of the Road and Parking Space in Cities, Final Report december 2015, MetroFreight Center of Excellence, France, p3, in

https://www.metrans.org/assets/upload/MF%2015-2%201c_Paris%20Urban%20Laboratory%20Final%20Report_12232015.pdf

3. ALANOOD Bin Kalli et all, The Dubaï logistics cluster, Microeconomics for competiteness, p8, in https://www.isc.hbs.edu/resources/courses/moc-course-at-harvard/Documents/pdf/student-projects/Dubai_Logistics_Cluster_2015.pdf
4. Alexandra Lagorio et al (2017), Urban Logistics Ecosystem: a system of system framework for stakeholders in urban freight transport projects, p7284, ScienceDirect, in https://www.researchgate.net/publication/320499236_Urban_Logistics_Ecosystem_a_system_of_system_framework_for_stakeholders_in_urban_freight_transport_projects
5. Cedwyn Fernandes & Gwendolyn Rodrigues (2009), Dubaï's Potential As An Integrated Logistics Hub, University of Wollongong in Dubai, The Journal of Applied Business Research – May/June 2009, V 25, N 3, p77-78-79.Débora Borges Tavares et all, Green Logistics as Urban Transportation Category, p1, 4, in https://www.pomsmeetings.org/ConfProceedings/060/Full%20Papers/Final%20Full%20papers/060-0785.pdf
6. EDITO (2019), Welcome to Logistics City, Livre Blanche de la Nouvelle Logistique urbaine, N° Zéro, p4-5, in https://www.lvmt.fr/wp-content/uploads/2019/10/Welcome-to-Logistics-City-1.pdf
7. EllCHl TAN1GUCH et all (2001), City logistics, network modelling and intelligent transport systems, Emerald Group Publishing Limited, p2, p3, p7, in https://www.pdfdrive.com/city-logistics-network-modelling-and-intelligent-transport-systems-e184598401.html
8. François-Joseph Van Audenhove et all (2015), Urban Logistics, How to unlock value from last mile delivery for cities, transporters and retailers, p3, in www.adl.com/UrbanLogistics
9. Gopal R (2017), The Logistics Industry Outlook, Frost & Sullivan Analysis, p16, p18, in http://www.sclarabia.com/2017/presentation/Gopal%20R,%20Transportation%20&%20Logistics%20Practice.pdf
10. Hongmei He & Haifang Cheng (2012), Analyzing key influence factors of city logistics development using the fuzzy decision making trial and evaluation laboratory (DEMATEL) method, African Journal of Business Management Vol.6 (45), p11282, in https://academicjournals.org/article/article1380553881_He%20and%20Cheng.pdf
11. Jaume Barceló et all (2017), City Logistics, Springer International Publishing AG, p2, p3, in https://link.springer.com/content/pdf/10.1007%2F978-3-319-07153-4_55-

1.pdf

12. Jesus Gonzalez-Feliu et all (2015), City Logistics Best Practices: a Handbook for Authorities, p9, in https://www.researchgate.net/publication/272349772_City_Logistics_Best_Practices_a_Handbook_for_Authorities/link/54e201c40cf296663793df8d/download

13. Jesús González-Feliu (2018), Urban logistics and spatial territorial intelligence indicators: State of the art, typology and implications for Latin American cities, Ed. n.˚11 // Enero-diciembre 2018 // ISSN 1993-4912, p138.

14. Kamran Yeganegi & Elham Eivazi, Conceptual Model of Logistics City, p2447, Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management Istanbul, Turkey, July 3 – 6, 2012, in http://ieomsociety.org/ieom2012/pdfs/573.pdf

15. Klara LJUBI (2017), Future Urban Logistics, p4, University of Ljubljana, Faculty of Economics, in http://www.cek.ef.uni-lj.si/magister/ljubi2766-B.pdf

16. KNIGHT Frank (2013), Dubaï Logistics and Industrial, Market update, p2, in http://content.argaam.com.s3-eu-west-1.amazonaws.com/48ac578a-e48b-4817-9ae0-9e8c6b94f8cf.pdf

17. Laetitia DABLANC (2015), City Logistics, Project SOLUTIONS webinar series, p9, French Institute of Science and Technology for Transport, Development and Network, in http://www.rupprecht-consult.eu/uploads/tx_rupprecht/SOLUTIONS_city_logistics_webinar_Nov_2015.pdf

18. LEE Kwon Hyung et all (2016), Logistics Hub Strategy of the GCC Countries and Policy Implications: with a Focus on Saudi Arabia and the UAE, World Economy Update, V6, N°16, ISSN 2233-9140, p3, in https://www.think-asia.org/bitstream/handle/11540/9175/WEU16-16.pdf?sequence=1

19. Le-Yin Zhang (2015), Managing the City Economy, Challenges and strategies in developing countries, First published 2015 by Routledge, in https://www.pdfdrive.com/managing-the-city-economy-challenges-and-strategies-in-developing-countries-e189702640.html

20. Martin Savelsbergh & Tom Van Woensel (2016), City Logistics: Challenges and Opportunities, SCL Report Series, p1, in https://www.scl.gatech.edu/sites/default/files/downloads/scl-16-01.pdf

21. Michael STOCKDALE (2015), Sustainability in the UAE Logistics Sector, A Research Report conducted in association with the Australian Supply Chain & Logistics Institute and the University of Cumbria, UK, p5, p7, in http://www.b2clogistics.com/wp-content/uploads/2019/10/Sustainability-in-the-UAE-Logistics-Sector.pdf

22. MICHAEL Proffitt (2006), Dubaï World central, Logistics City, Dubaï – India's Air Cargo Gateway to World Markets, in https://slideplayer.com/slide/12215613/

23. M.Sc. Yanqiang MA (2014), City Logistics in China – An Empirical Study from An Emerging-Market-Economy Country, p12, Technische Universität Darmstadt – Germany, in https://www.pdfdrive.com/city-logistics-in-china-e51141658.html

24. Nasser Saidi et all, Dubaï World Central and the Evolution of Dubaï Logistic Cluster, Economic Note N°10, Dubaï International Financial Center, p11, in http://nassersaidi.com/wp-content/uploads/2010/08/Economic-Note-10.pdf

25. Pontus MERKKEL (2015), Efficient city logistics, 15 HP BFA Thesis, MARCH 23 - APRIL 24, 2015, p12, in http://www.diva-portal.org/smash/get/diva2:846667/FULLTEXT01.pdf FULLTEXT01

26. RAFEEF Ziadah (2018), Transport infrastructure and logistics in the making of Dubaï INC, International Journal of Urban and Regional Research, p186, in https://onlinelibrary.wiley.com/doi/pdf/10.1111/1468-2427.12570

27. Sabrina TRAFELA (2013), Modeling of city logistics, p3, University of Mariboru, Faculty of Logistics, in https://dk.um.si/IzpisGradiva.php?id=41506&lang=eng

28. Vanessa Frick (2019), City Logistics and Citizen Satisfaction: A City Marketing Perspective, p22, Copenhagen Business School, in https://research.cbs.dk/en/studentProjects/city-logistics-and-citizen-satisfaction-a-city-marketing-perspect

29. Zaid Ashai et all (2007), The Transport and Logistics Cluster in the United Arab Emirates, Microeconomics of Competitiveness, Group Project, p18-19, in https://www.isc.hbs.edu/resources/courses/moc-course-at-harvard/Documents/pdf/student-projects/UAE_TransportLogisticsCluster_2007.pdf

30. Dubai as a Global Logistics Hub: Get Ready for Growth, in https://na.eventscloud.com/file_uploads/cbdae203100f6d0fc0a2b2544cac10fe_04_DWCPresentation_DubaiasaGlobalLogisticsHubGetReadyforGrowth.pdf

31. Dubai Foreign Direct Investment office –FDI, Inviting Possibilities, p2-4, in http://www.dubaifdi.gov.ae/StudiesandResearchDocumentsinArabic/Final_september_Logistics.pdf