



Research on the metal, plastic, glass, textile and wood processing sector in the

United Arab Emirates

**On behalf of the Italian Trade Commission prepared by Sesam
Business Consultants**

Final report

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Table of Content

1. Executive Summary.....	5
2. Approach and methodology	6
3. Brief introduction to the United Arab Emirates	8
3.1. Economic overview of the United Arab Emirates.....	8
3.2. Industrialization program and incentives.....	11
3.3. Market access requirements.....	12
4. The machinery utilizing sector in the United Arab Emirates	14
4.1. Overview	14
4.2. Local production.....	14
4.3. Import/export data.....	17
4.3.1. Metal processing machinery	17
4.3.2. Plastic processing machinery	20
4.3.3. Glass processing machinery	21
4.3.4. Textile processing machinery	23
4.3.5. Wood processing machinery.....	25
4.4. Main competitors.....	26
4.5. Market evolution in the last five years	28
4.6. Mid term future outlook.....	28
5. Primary research in the machinery utilizing sector.....	30
5.1. Metal processing machinery	30
5.1.1. Relevant HS codes.....	30
5.1.2. General observations	32
5.1.3. Interviewed companies	33

5.1.4. Production program – Prioritization of subsectors.....	34
5.1.5. Major players.....	35
5.1.6. Production structure	35
5.1.7. Investment plans in machine tools over the next three years.....	37
5.1.8. Strategic targets in medium term	38
5.1.9. Influence of OEM customers.....	39
5.2. Plastic processing machinery.....	41
5.2.1. Relevant HS codes.....	41
5.2.2. General observations	42
5.2.3. Interviewed companies	43
5.2.4. Production program – Prioritization of subsectors.....	44
5.2.5. Major players.....	44
5.2.6. Production structure	45
5.2.7. Investment plans in machine tools in the next three years.....	46
5.2.8. Strategic targets in medium term	47
5.3. Glass processing machinery.....	49
5.3.1. Relevant HS codes.....	49
5.3.2. General observations	50
5.3.3. Interviewed companies	50
5.3.4. Production program – Prioritization of subsectors.....	51
5.3.5. Major players.....	52
5.3.6. Production structure	52
5.3.7. Investment plans in machine tools in the next three years.....	55
5.4. Textile processing machinery	56
5.4.1. Relevant HS codes.....	56
5.4.2. General observations	58
5.4.3. Interviewed companies	59

5.4.4. Production program – Prioritization of subsectors.....	60
5.4.5. Major players.....	60
5.4.6. Production structure	61
5.4.7. Investment plans in machine tools in the next three years.....	64
5.5. Wood processing machinery.....	66
5.5.1. Relevant HS codes.....	66
5.5.2. General observations	66
5.5.3. Interviewed companies	67
5.5.4. Production program – Prioritization of subsectors.....	68
5.5.5. Major players.....	69
5.5.6. Production structure	69
5.5.7. Investment plans in machine tools in the next three years.....	71
6. Recommended marketing strategies for Italian machinery suppliers.....	73
6.1. General perception of Italy’s machinery industry and its products	73
6.2. Perceived hurdles for sourcing from Italy	73
6.3. Opportunities for Italian machinery suppliers.....	74
7. Attachments.....	77
8. Sources	77

1. Executive Summary

Sesam Business Consultants are in charge of conducting a research project on the machinery utilizing sector for metal, plastic, glass, textile and wood processing in the United Arab Emirates (UAE) on behalf of the Italian Trade Commission in Dubai (ICE).

This is the final report.

The task of this assignment is to provide a comprehensive overview of the machinery utilizing sector for metal, plastic, glass, textile and wood processing in the UAE. A comprehensive database of the key players in these fields represents an important element of the research. The key information on prospective clients in the market for Italian machinery suppliers will be supported by findings from secondary literature research and 100 face-to-face interviews with major UAE market players. This information will provide a trend-setting picture of the market sentiments in the country, and point out promising market opportunities for Italian machinery suppliers.

In general Emirian market players are satisfied with the quality and performance of Italian machinery. However, a general feeling was that marketing activities need to be intensified. Points of criticism are a lack of after sales service, the unavailability of spare parts, and isolated cases of communication problems. The report elaborates on these factors and provides an outlook on mid-term opportunities for Italian manufacturers to utilize their competitive advantages within the changing UAE business environment.

2. Approach and methodology

Sesam has structured its market research activities in two stages:

Secondary Research

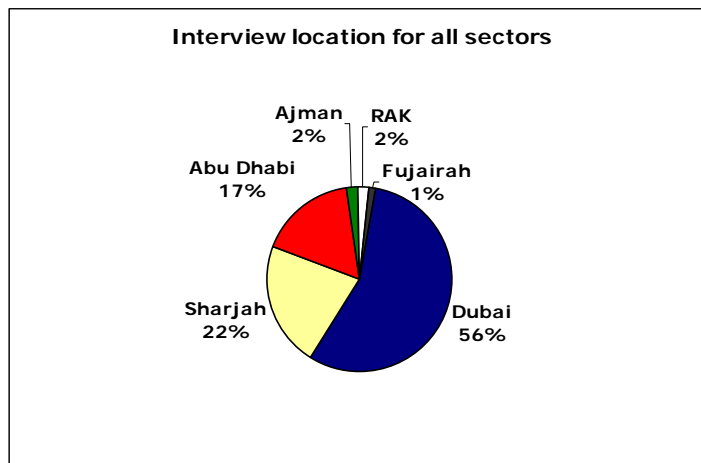
The secondary research is mostly based on literature, internet and telephone research, evaluation of existing material and internal intelligence from previous assignments.

The research provides a country overview of the current business climate including statistical data and a closer assessment of the specified machine tool segments. A database of the machinery utilizing sector has been compiled and attached separately to this report.

Primary research

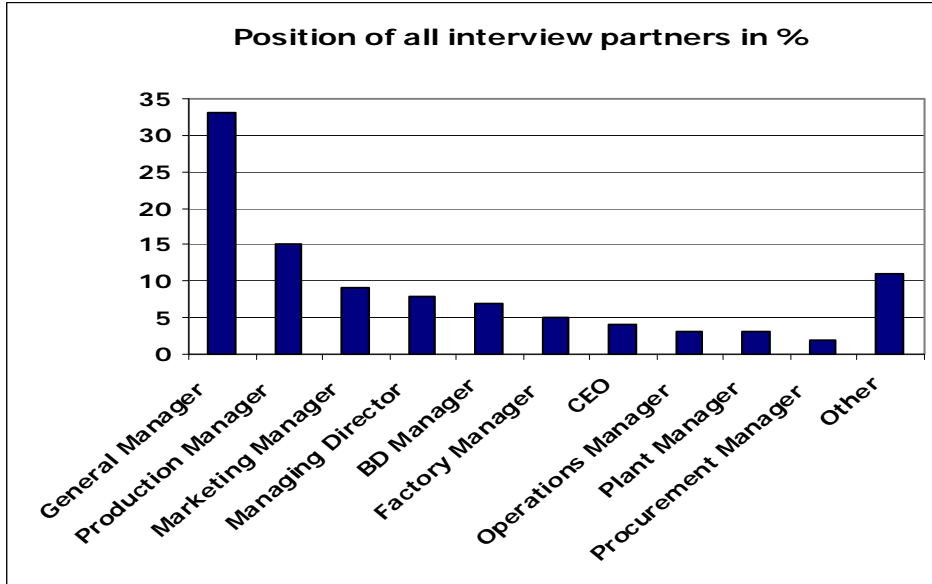
Sesam used the questionnaires (provided by the Italian Trade Commission) as a guideline for the personal interviews of the major players of each sector in the UAE. Due to their comprehensive nature and the local sentiments, all interviews had to be conducted on a personal and confidential level. As it was unlikely to extract the desired information by telephone or mailing interviews, the entire primary research was conducted by 100 face-to-face interviews on-site and included travel between the major industrial clusters in six of the seven Emirates, namely Abu Dhabi, Dubai, Sharjah, Ajman, Fujairah and Ras Al Khaimah. The main industrial centers are to be found in Dubai, Sharjah and Abu Dhabi.

Illustration 1: Allocation of interviews between Emirates



Interview candidates were of managerial level in order to ensure a qualitative and valuable information collection.

Illustration 2: Position of interviewees



Furthermore the targeted number of personal interviews were allocated to the five sectors considered to be of high economic importance.

This report is based on the secondary and primary research findings.

3. Brief introduction to the United Arab Emirates

The United Arab Emirates (UAE) has for many years been the most recognized country of the Gulf Cooperation Council (GCC). The UAE has a population of 4.48 million people. However, less than 20% are UAE citizens, with remainder consisting of expatriate workers. This trend is shared in the other Gulf countries.

The UAE is ranked 33rd out of 183 countries in the World Bank's rating of Ease of Doing Business, and fourth among Arab states.

The UAE's generous oil reserves and moderate foreign policy stance has allowed it to play a vital role in regional affairs.

3.1. *Economic overview of the United Arab Emirates*

The UAE has an open economy with a high per capita income. Gross Domestic Product (GDP) growth rates have been soaring between 15% and 30%. The GDP in the UAE for 2008 was estimated at USD 208.7 billion. This represents a rise of 23% from 2007. The Emirate of Abu Dhabi has an estimated share of 55.7% in the GDP, with Dubai at 32.3%. This is due to the immense oil reserves in Abu Dhabi. However, due to the international financial crisis in 2009, the UAE's GDP dropped by 4% to USD \$201.4 billion. Successful efforts at economic diversification have reduced the portion of GDP based on oil and gas output to 25%. Manufacturing industries have a share of about 20% in the UAE non-oil GDP. Other strong non-oil sectors are wholesale/retail trade, construction/real estate and financial corporations. Competitive advantages of the UAE are the proximity to economically important resources like natural oil & gas and very affordable labour. For industrial manufacturing the low energy costs are a clear advantage. The geographical location is ideal in a region of profound growth potential between the Middle East, Africa and Asia.

Table 1: Macroeconomic data United Arab Emirates

Population, million	2008: 4.7 2009: 4.7 (e) 2010: 4.8 (f) 2011: 5.0 (f)
Gross Domestic Product (GDP nom.), US\$ billion	2008: 245.5 2009: 230.6 (e) 2010: 266.3 (f) 2011: 291.1 (f)

GDP per capita, US\$	2008: 52068 2009: 49410 (e) 2010: 55946 (f) 2011: 58796 (f)
Real GDP growth, % change y-o-y	2008: 7.4 2009: -2.9 (e) 2010: 2.8 (f) 2011: 5.2 (f)
Consumption growth, %	2008: 10%
Unemployment, % of labour force	2008: 4% 2009: 4.5%
Inflation Rate	2008: 12,3% 2009: 1.56% 2010: 2.5% (f)
Prime rate, % (16.02.2010)	1,00%
Change AED/US\$ (16.02.2010)	3.6720
Change AED/EUR (16.02.2010)	4.9948
Salary, monthly average for Emiratis, EUR	2009: 7.775
Household income, monthly average, EUR	2009: 3.894
Goods Exports, US\$ billion	2008: 239.2 2009: 189.5 (e) 2010: 223.1 (f) 2011: 243.2 (f)
Exports, % change y-o-y	2008: 30.7 2009: -20.8 (e) 2010: 17.7 (f) 2011: 9.0 (f)
UAE Exports (non-oil) to Italy, in thousand AED. and kg	2008: 102,899,641 (Weight) 2008: 477,278,020 (Value)
Imports, US\$ billion	2008: 176.3 2009: 122.4 2010: 157.3 (f) 2011: 169.9 (f)
Imports, % change y-o-y	2008: 33.4 2009: -31.6 2010: 28.5 (f) 2011: 8.0 (f)
UAE Imports from Italy, in thousand AED and kg	2008: 845,357 (Weight) 2008: 21,759,907 (Value)
Trade balance, US\$ billion	2008: 62.9 2009: 39.7 (e) 2010: 65.8 (f) 2011: 73.3 (f)
FDI, growth annually, %	2008: 29%

e: estimated f: forecast Source: IMF, UAE Central Bank, Ministry of Economy

The direction of economic development in the UAE is clearly outlined in the governmental long-term plans. Namely these are the Abu Dhabi Economic Vision 2030 (for review online:

<http://www.usuaebusiness.org/view/images/uploaded/Abu%20Dhabi%202030%20Vision%20Report.pdf>)

The **Abu Dhabi Economic Vision 2030** aims to achieve effective economic transformation of the Emirate's economic base and bring about global integration and enduring benefits to all. Abu Dhabi has a core commitment to build a sustainable and diversified, high value-added economy by 2030.

This will be achieved by broadening the sectors of economic activity, enlarging the enterprise base, and growing external markets. Furthermore, Abu Dhabi will also continuously enhance competitiveness and improve productivity. Delivering on such commitments will be translated, according to base case growth scenarios, into entrenched sustainable development and significant levels of economic diversification by 2030.

Moreover, to ensure that social and regional development equitably reaches the whole of society, Abu Dhabi will equip its youth to enter the workforce and maximize the participation of women, particularly Nationals, from across the Emirate. Abu Dhabi will also continue to attract a skilled workforce from abroad, and to stimulate an enabled economy will lead the way towards sustainable development and growth, which will be achieved, in the context of Abu Dhabi, through the effective expansion of a number of strategic economic sectors. These sectors are expected to form the Emirate's engines of economic growth and diversification:

- Energy – Oil & Gas
- Petrochemicals
- Metals
- Aviation, Aerospace, & Defense
- Pharmaceuticals, Biotechnology, & Life Sciences
- Tourism
- Healthcare Equipment & Services
- Transportation, Trade, & Logistics
- Education
- Media
- Financial Services
- Telecommunication Services

and the Dubai Strategic Plan 2015 (for review online:

<http://egov.dubai.ae/opt/CMSContent/Active/CORP/en/Documents/DSPE.pdf>).

Over the past few decades, Dubai has successfully developed its status as a major city, enhancing the wellbeing of its people and creating an environment That attracts businesses and individuals.

To support, maintain and develop this status, the Government of Dubai will focus on delivering its mission of comprehensive economic and social development and prosperity in all sectors.

The Guiding Principles of the **Dubai Strategic Plan 2015** are:

1. Economic Development
 - a. Adoption of Free Market Economy Principles
 - b. Innovation in Launching Initiatives
 - c. Speed and Accuracy in Project Execution
 - d. Unique relationship and Partnership with the Private Sector
2. Social Development
3. Security, Justice and Safety
4. Infrastructure, Land and Environment
 - a. Provisioning of World-Class Infrastructure Designed to Suit the Requirements of all Users
 - b. Preserving the Environment in line with International Standards
5. Public Sector Excellence

The industry focus for Dubai in the next five years clearly lies in the following sectors:

- Tourism
- Transportation and Storage
- Trade
- Professional Services
- Construction
- Financial Services

3.2. Industrialization program and incentives

The industrial non-oil sector has witnessed rapid development in the UAE since the mid-1980s. Today, there are more than 4,200 industrial firms active in the UAE. The country's free trade zones, offering 100% foreign ownership and 0% taxes, are helping to attract foreign investors.

The free zones in the UAE are:

Table 2: Free zones in the United Arab Emirates

Emirate	Free Zone
Dubai	Jebel Ali Free Zone Dubai Airport Free Zone Dubai Internet City Dubai Media City Dubai Auto Zone Dubai Biotechnology & Research Park Dubai Flower Centre Dubai Healthcare City Dubai International Financial City Dubai Gold and Diamond Park Dubai Knowledge Village Dubai Logistics City Dubai Maritime Authority Dubai Multi Commodity Centre Dubai Outsource Zone Dubai Silicon Oasis Dubai Studio City ENPARK International Media Production Zone
Abu Dhabi	ZonesCorp Khalifa Port and Industrial Zone Abu Dhabi Airport Free Zone
Sharjah	Hamriyah Free Zone Sharjah Airport International Free Zone
Ras Al-Khaimah	RAK Free Trade Zone RAK Investment Authority
Umm Al-Quwain	Ahmed Bin Rashed Free Zone
Fujeirah	Fujeirah Free Zone
Ajman	Ajman Free Zone

Source: www.uaefreezones.com

Outside of free zones (in the mainland) companies need to be under a minimum of 51% UAE ownership. National industrial firms are exempted from all taxes and duties levied on profits or production, with the exception of certain administrative fees. For companies with headquarters or branches abroad, there are no restrictions on profit transfer and capital repatriation.

The linking of the national currency AED to the USD provides security for international investors and business partners regarding currency fluctuations.

Companies in the UAE profit from its convenient location between the business centres of Europe and Asia. Another advantage is that very affordable labour from Asian countries can be combined with European expert know-how. The average salary, e.g. in the metal processing sector, for workers is about AED 2,000 per month (USD 545).

Industrial manufacturing is clustered in dedicated zones in the UAE. The aforementioned free zones play a vital role in this, although about 50% are dedicated to the service industry and trading companies. Important industrial zones in Dubai are the Jebel Ali Free Zone as well as the industrial zones in Dubai Investment Park, Ras Al Khor, Al Quoz and Al Qusais. In the Emirate of Sharjah, the Hamriyah and Airport International Free Zone are key locations, along with the dedicated 17 industrial areas in the mainland. In Abu Dhabi the Musaffah area, Ruwais area and Industrial Cities of Abu Dhabi I-III, as well as the Abu Dhabi Polymers Park house most of the industrial firms. In conclusion, it can be determined that most industrial and manufacturing activities are to be found in the Emirates of Dubai and Sharjah (see also table in 4.2.).

3.3. Market access requirements

The imports of industrial projects (machinery, equipment and raw materials), as well as their exports (manufactured or semi-manufactured products), are exempted from customs duties.

As per the official customs authority information, the following documents are mandatory for the import of goods into the local market (not into a free trade zone):

1. Import goods declaration form.
2. Delivery order from a shipping agent addressed to a licensed company in the UAE.
3. Original bill of lading (for seaports).

4. Import permit from the competent agencies in the event of importing restricted goods. (None of the products which are subject of this study are likely to fall under restrictions regarding the import to the UAE.)
5. Original invoice from the exporter addressed to a licensed importer in the country detailing total quantity, goods description and total value for each item.
6. Original certificate of origin approved by the chamber of commerce in the country of origin detailing the origin of goods.
7. Detailed packing list as per weight, method of packing and HS code for each individual article contained in the shipment.
8. A form or letter of exemption from customs duties in case the exemption requirements are fulfilled including Local Purchase Order (LPO).
9. Copy of the trade license of buyer and seller.

When importing goods from Italy directly, the local receiving party needs to have an importing license which should be related to the industry field the Italian goods are dedicated for. Only the local party needs to have a trade license, not the Italian exporter (no requirements for foreign side).

As a model, the procedure for licensing industrial projects shall be outlined for Dubai:

1. Obtaining No Objection Letter from the Municipality
2. Obtaining the initial approval from the Ministry of Finance & Industry
3. Obtaining the industrial license from the Department of Economic Development
4. Inscription of the project in the Industrial Register, with the Ministry of Finance & Industry
5. Registration of the Industrial Establishments with the Dubai Chamber of Commerce & Industry

4. The machinery utilizing sector in the United Arab Emirates

This section of the final research report will highlight the machinery utilizing market in the UAE.

An overview of the country in general and the machinery sector specifically will be given. In this section, the report will focus on the local production of machinery and products in the metal, plastic, glass, textile and wood processing industry as well as available import and export data. The report will further elaborate on the main competitors for Italian machinery suppliers and analyze market evolution in the past years. Moreover it will show growth opportunities for the future.

4.1. Overview

As is the case for this region, statistics in the UAE are not of the same accuracy and timeliness and are not provided to the same extent and comprehensiveness as it would be common in Europe. As there is no corporate or value added tax applicable in the UAE, companies are not legally bound to declare data on the volume of their economic activities. The size of local manufacturing industries and their production output can therefore only be estimated. Import and export numbers on the other hand will be provided in detail in the following pages.

4.2. Local production

Italian machine tool suppliers face only marginal competition from manufacturers of the considered machinery in the local market.

As there is no reliable data about local production (see explanation below) this needs to be illustrated with export numbers of the concerned machinery (in 5.3.). The fact that export for most types of machinery in focus is Nil or marginal undermines the assumption that local production subsequently can be neglected for the purpose of this report.

Therefore this report primarily focuses on the potential clientele, the processing industry.

The following table illustrates the allocation of manufacturing firms of the targeted sectors divided between the seven Emirates.

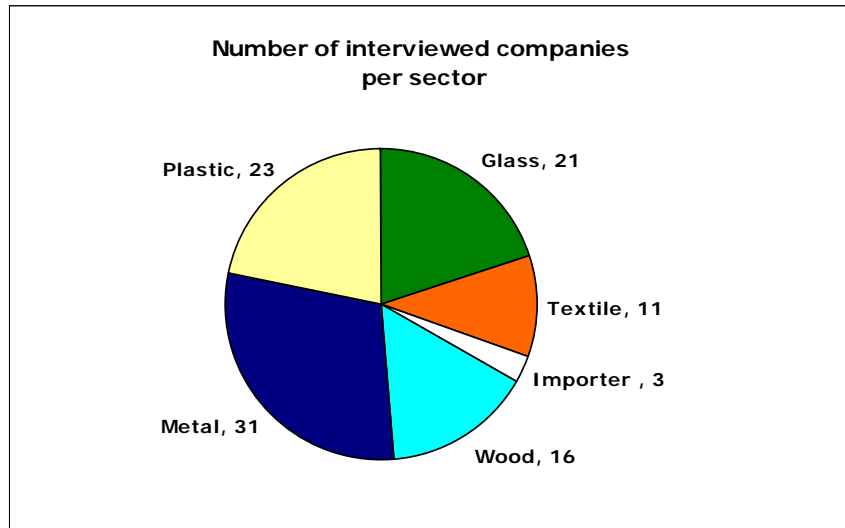
Table 3: Manufacturing firms in the UAE by Emirate and industry

Manufacturing firms in the UAE by Emirate and industry								
Industry	Total	Abu Dhabi	Dubai	Shar-jah	Ajman	Umm Al-Quwain	Ras Al-Khaimah	Fujei-rah
Textile and Wearing Apparel	277	18	50	93	104	6	4	2
Wood and Wood Products, incl. Furniture	546	9	266	185	65	13	7	1
Chemicals, Petroleum and Plastic Products	734	80	218	223	147	34	25	7
Basic Metal Industries	84	12	33	18	5	5	4	7
Fabricated Metal Products, Machinery and Equipment	1171	86	581	325	114	32	29	4
Manufacture of Non-Metallic Mineral and Glass products	557	66	214	120	61	23	42	31
Other manufacturing	850	55	356	246	120	27	32	14
Total	4219	326	1718	1210	616	140	143	66

Source: Industrial Department, Ministry of Economy UAE, 2008

The relevance of the respective subsectors was taken into consideration for the final allocation of the personal interviews.

Illustration 3: Allocation of interviews between targeted sectors



As there is no taxation or other governmental body or industrial associations that collect production and/or sales/turnover data on a mandatory basis from local companies, the output size of the UAE non-oil industrial sector can only be estimated (confirmed by the Chambers of Commerce & Industry in Dubai and Abu Dhabi and by the National Bureau of Statistics).

This can be achieved through data on the import and re-export (Import ./ Re-Export = local consumption) of the raw materials used in the production processes of the sectors this study focuses on. The only locally sourceable raw materials are petroleum for the plastic processing industry and steel and aluminium for metal processing:

Table 4: Consumption of imported raw materials

Raw material	Local consumption in tons
Metals	3,374,117
Petrochemicals	802,268
Glass	250,662
Yarns, fabrics	192,228
Wood	940,345

Source: National Bureau of Statistics UAE, 2009

The proven oil reserves in the UAE are the seventh largest in the world at 97.8 billion barrels. Crude oil production is 2,572,000 b/d, of which 2,334,000 b/d are exported. The refining capacity in the UAE lies at 466,000 b/d; 161,600 b/d are being processed in the local market. Annual local production of refined petrochemical products therewith amounts to 7,865,750 tons (figure not included in above table). The largest plastics manufacturer in the UAE is Borouge (joint venture between Abu Dhabi National Oil Company ADNOC and Austrian company Borealis).

The total aluminium production capacity for the UAE is estimated to rise to 3 million tons per annum until 2012. By this, the Emirates will be by far the largest producer in the GCC. Annual steel production will be 5.7 million tons by 2012.

Table 5: Local steel manufacturers

Local steel manufacturers	
Gulf Steel Industries Co.	Abu Dhabi
Emirates Steel Industries	Abu Dhabi
Al Nasser Industrial Ent. LLC	Abu Dhabi
Euro Gulf Steel Industries	Dubai
Al Bahri Steel Industries	Dubai
QASCO Dubai Steel	Dubai
Shattaf Anand Steel Rolling	Sharjah
Steelmould Sharjah	Sharjah

Source: Emirates Industrial Bank, 2008

4.3. Import/export data

The following tables illustrate the UAE import, export and re-export of the types of machinery this report is focusing on for the years 2009, 2008 and 2007.

The respective machine type with the highest share per year is highlighted.

4.3.1. Metal processing machinery

Table 6: Import of metal machinery by HS codes

	HS CODE	IMPORT 2007			IMPORT 2008			IMPORT 2009		
		Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value
1	84561000	213,193	5,719,091	3.37%	360,679	5,158,056	2.02%	510,220	5,870,185	3.82%
2	84562000	46,526	299,507	0.18%	23,178	731,033	0.29%	52,186	335,919	0.22%
3	84563000	43,121	523,747	0.31%	230,572	1,525,047	0.60%	100,078	1,214,086	0.79%
4	84569000	262	34,587	0.02%	97,449	1,450,797	0.57%	157,408	4,132,795	2.69%
5	84571000	567,852	10,498,812	6.19%	472,168	9,301,219	3.65%	509,149	8,980,293	5.85%
6	84572000	214,061	834,964	0.49%	610,112	4,249,946	1.67%	856,145	2,851,952	1.86%
7	84573000	228,894	6,063,630	3.58%	130,078	436,149	0.17%	8,585	48,379	0.03%
8	84581100	267,778	2,796,794	1.65%	545,461	6,506,326	2.55%	310,607	5,954,929	3.88%
9	84581900	520,950	1,568,530	0.93%	732,999	4,486,967	1.76%	373,224	1,988,576	1.29%
10	84589100	242,163	1,230,410	0.73%	473,978	4,642,691	1.82%	226,330	1,943,370	1.27%
11	84589900	1,526,756	3,178,599	1.88%	2,049,471	23,193,001	9.10%	827,536	3,814,439	2.48%
12	84595100	57,335	602,152	0.36%	230,644	1,381,673	0.54%	87,105	144,536	0.09%
13	84595900	473,814	1,905,915	1.12%	139,370	700,837	0.27%	17,417	94,272	0.06%
14	84596100	85,191	959,054	0.57%	367,848	2,889,199	1.13%	60,747	836,436	0.54%
15	84596900	268,486	1,383,879	0.82%	722,950	7,385,491	2.90%	170,152	1,602,421	1.04%
16	84601100	28,227	216,615	0.13%	14,223	222,981	0.09%	9,505	86,788	0.06%
17	84601900	71,720	479,793	0.28%	319,996	2,019,016	0.79%	80,398	460,464	0.30%
18	84602100	80,051	1,224,173	0.72%	6,113	383,399	0.15%	14,310	401,245	0.26%
19	84602900	232,506	948,740	0.56%	193,343	835,696	0.33%	619,502	984,852	0.64%
20	84603100	75,714	334,613	0.20%	112,378	632,897	0.25%	59,499	437,199	0.28%
21	84603900	32,608	403,263	0.24%	43,858	623,075	0.24%	87,678	391,740	0.26%
22	84604000	21,689	285,957	0.17%	25,082	309,963	0.12%	12,371	121,604	0.08%
23	84609000	337,628	2,501,405	1.48%	398,808	2,896,581	1.14%	522,267	2,161,866	1.41%
24	84612000	738,255	2,980,218	1.76%	425,102	2,392,425	0.94%	42,059	432,273	0.28%
25	84613000	58,221	2,226,124	1.31%	7,189	42,952	0.02%	2,281	17,572	0.01%
26	84614000	392,985	1,637,313	0.97%	697,532	6,990,230	2.74%	307,796	1,481,965	0.96%
27	84615000	1,993,159	18,325,788	10.81%	1,783,567	16,006,339	6.28%	2,245,314	23,352,872	15.20%
28	84619000	348,492	1,396,013	0.82%	148,692	1,393,569	0.55%	198,875	1,652,707	1.08%
29	84621000	697,662	3,165,305	1.87%	1,013,835	5,341,453	2.10%	675,481	3,987,006	2.60%
30	84622100	697,662	3,165,305	1.87%	2,228,970	24,755,438	9.71%	1,134,403	12,594,950	8.20%
31	84622900	4,585,671	22,310,574	13.16%	5,025,243	34,225,450	13.42%	2,495,858	12,166,704	7.92%

32	84623100	1,153,072	7,543,212	4.45%	469,959	4,788,462	1.88%	358,724	4,655,511	3.03%
33	84623900	3,033,489	10,267,644	6.06%	2,596,982	10,100,772	3.96%	1,548,647	5,142,923	3.35%
34	84624100	514,066	6,974,963	4.12%	555,528	8,623,821	3.38%	317,382	3,169,684	2.06%
35	84624900	466,467	5,364,207	3.17%	433,709	4,669,685	1.83%	401,589	4,470,370	2.91%
36	84629100	3,556,763	13,926,483	8.22%	2,176,716	12,821,333	5.03%	2,041,618	9,234,047	6.01%
37	84629900	1,499,814	5,013,291	2.96%	1,608,609	8,531,177	3.35%	683,455	3,884,317	2.53%
38	84631000	78,151	933,446	0.55%	146,961	1,470,468	0.58%	157,629	1,151,590	0.75%
39	84632000	170,680	531,087	0.31%	207,812	994,745	0.39%	108,830	369,685	0.24%
40	84633000	581,940	12,407,161	7.32%	710,873	18,909,930	7.42%	462,124	7,563,023	4.92%
41	84639000	929,537	7,319,110	4.32%	1,266,608	10,919,142	4.28%	1,304,166	13,407,386	8.73%
Total		27,132,610	169,481,473	100.00%	29,804,646	254,939,431	100.00%	20,158,649	153,592,932	100.00%

Source: National Bureau of Statistics UAE

Table 7: Export of metal processing machinery

	HS CODE	EXPORT 2007		EXPORT 2008		EXPORT 2009	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84615000	0	0	0	0	0	0
2	84639000	0	0	0	0	0	0
3	84622100	243371	46321.5259	0	0		0
4	84622900	0	0	0	0		0
5	84629100	0	0	0	0	2,815	9,755
6	84571000	0	0	0	0	31,796	7,284
7	84633000	0	0	3,680	2,452	0	0
8	84581100	30730	1204195.91	0	0	0	0
9	84562000	0	0	1,768,385	316,533	0	0
10	84623900	0	0	821,405	1,651,619		0
11	84623100	0	0	12,000	51,289		0
12	84624900	0	0	0	0	0	0
13	84561000	0	0	0	0	0	0
14	84621000	0	0	2,180	203,396		0
15	84629900	0	0	0	0	0	0
16	84589900	0	0	0	0	0	0
17	84624100	0	0	0	0	5,125	244,456
18	84572000	0	0	0	0	19,088	4,741
19	84609000	0	0	30	109	0	0
20	84581900	0	0	18,000	124,462	0	0
21	84589100	0	0	0	0	0	0
22	84619000	0	0	0	0		0
23	84596900	0	0	0	0	0	0
24	84614000	0	0	0	0	0	0
25	84569000	0	0	0	0	0	0
26	84631000	0	0	0	0	0	0
27	84602900	0	0	0	0	0	0
28	84596100	0	0	0	0	0	0
29	84601900	0	0	0	0	0	0
30	84603100	0	0	0	0	0	0

31	84612000	0	0	0	0	0	0
32	84602100	0	0	0	0	0	0
33	84603900	0	0	0	0	0	0
34	84632000	0	0	0	0	0	0
35	84563000	0	0	0	0	0	0
36	84595100	0	0	0	0	0	0
37	84604000	0	0	0	0	0	0
38	84595900	0	0	0	0	0	0
39	84601100	0	0	0	0	0	0
40	84573000	0	0	0	0	0	0
41	84613000	0	0	0	0	0	0
Total		274,101	1,250,517	2,625,680	2,349,861	58,824	266,237

Source: National Bureau of Statistics UAE

Table 8: Re-Export of metal processing machinery

	HS CODE	RE-EXPORT 2007		RE-EXPORT 2008		RE-EXPORT 2009	
		Weight	Value (US\$)	Weight (KG)	Value (€)	Weight (KG)	Value (US\$)
1	84561000	365,696	99,645	309,679	1,211,329	283,975	2,370,617
2	84562000	39,147	10,667	158,744	761,611	68,516	909,372
3	84563000	289,149	78,787	46,030	159,076	139,198	1,576,046
4	84569000	460,731	125,540	6,068	13,108	361,964	3,357,608
5	84571000	273,902	74,633	438,870	1,896,593	546,800	1,925,319
6	84572000	67,361	18,354	191,721	787,680	441,202	1,574,200
7	84573000	24,504	6,677	29,020	185,263	24,015	120,621
8	84581100	93,640	25,515	27,306	103,254	79,205	790,843
9	84581900	25,052	6,826	37,685	84,441	7,765	31,520
10	84589100	101,308	27,604	48,640	213,810	139,925	983,934
11	84589900	69,409	18,913	72,516	520,801	32,660	255,623
12	84595100	44,363	12,088	5,628,622	2,225,147	23,702	181,834
13	84595900	22,112	6,025	28,980	205,528	51,749	682,998
14	84596100	63,337	17,258	45,721	90,665	264,455	351,263
15	84596900	95,783	26,099	66,770	162,349	54,832	268,234
16	84601100	51,592	14,058	56,368	290,133	228,798	4,651,870
17	84601900	33,023	8,998	18,170	71,070	41,612	2,880,454
18	84602100	118,167	32,198	57,589	237,242	183,713	655,169
19	84602900	97,666	26,612	180,562	217,298	86,616	1,143,137
20	84603100	55,660	15,166	127,651	188,374	29,820	36,618
21	84603900	73,486	20,023	140,603	325,556	269,249	388,400
22	84604000	67,309	66,573	88,608	547,353	66,573	66,573
23	84609000	32,953	8,979	23,559	18,065	9,878	32,488
24	84612000	25,313	6,897	116	1,645	37,847	634,276
25	84613000	1,536	419	13,165	122,097	108,461	295,725
26	84614000	261	71	33,037	207,672	2,017	158,965
27	84615000	53,689	14,629	3,642	9,989	16,426	137,910
28	84619000	5,775	1,574	36,868	206,175	26,295	27,270
29	84621000	4,450	1,213	52,583	119,119	3,257	21,326
30	84622100	49,945	13,609	9,109	95,160	62,012	327,953

31	84622900	211,016	57,498	2,777	42,095	4,158	9,921
32	84623100	0	0	59,010	132,810	11,325	80,534
33	84623900	11,115	3,029	40,893	77,345	45,790	253,359
34	84624100	64,605	17,603	19,775	65,218	36,684	117,925
35	84624900	30,665	8,356	29,660	869,935	125,264	123,868
36	84629100	1,590	433	74,938	220,048	363	6,004
37	84629900	0	0	1,111	5,758	10,966	53,880
38	84631000	48,348	13,174	0	0	4,403	20,500
39	84632000	13,706	3,735	346	24,054	63	4,774
40	84633000	0	0	3,680	16,566	440	4,769
41	84639000	1,914	522	0	0	535	3,675
Total		3,089,272	889,996	8,210,189	12,731,432	3,932,522	27,517,373

Source: National Bureau of Statistics UAE

4.3.2. Plastic processing machinery

Table 9: Import of plastic processing machinery

	HS CODE	IMPORT 2007			IMPORT 2008			IMPORT 2009		
		Weight (KG)	Value US\$	% of Value	Weight (KG)	Value (US\$)	% of Value	Weight (KG)	Value (US\$)	% of Value
1	84431600	4,500	126,336	0.04%	335,923	7,127,938	2.85%	109,727	4,323,699	1.98%
2	84440000	585,361	9,021,789	3.14%	27,324	628,008	0.25%	14,117	270,372	0.12%
3	84771000	1,519,537	10,466,685	3.64%	2,222,516	46,519,763	18.59%	601,426	3,773,119	1.73%
4	84772000	1,934,589	30,250,330	10.53%	1,588,836	26,461,538	10.58%	2,785,399	89,896,793	41.12%
5	84773000	742,954	7,691,870	2.68%	1,715,316	13,564,275	5.42%	1,085,848	19,609,659	8.97%
6	84774000	470,826	3,661,119	1.27%	167,595	1,736,142	0.69%	192,614	2,466,569	1.13%
7	84775100	6,182,145	97,913,313	34.07%	769,945	4,818,612	1.93%	891,449	23,399,396	10.70%
8	84775900	337,572	3,921,002	1.36%	232,406	2,385,108	0.95%	774,416	8,389,248	3.84%
9	84778000	6,182,145	97,913,313	34.07%	2,632,266	40,168,514	16.06%	2,110,937	27,022,234	12.36%
10	84779000	1,307,722	19,038,351	6.62%	3,560,271	94,502,759	37.77%	1,455,008	30,699,625	14.04%
11	84807100	314,958	5,061,466	1.76%	243,706	5,235,391	2.09%	344,124	5,138,535	2.35%
12	84807900	343,893	2,307,884	0.80%	483,675	7,044,011	2.82%	214,989	3,656,148	1.67%
		19,926,202	287,373,458	100%	13,979,779	250,192,058	100%	10,580,054	218,645,397	100%

Source: National Bureau of Statistics UAE

Table 10: Export of plastic processing machinery

	HS CODE	EXPORT 2007		EXPORT 2008		EXPORT 2008	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84431600	0	0	0	0	0	0
2	84440000	0	0	0	0	0	0
3	84771000	0	0	19,300	959,110	34,475	541,695
4	84772000	0	0	0	0	0	0
5	84773000	0	0	0	0	0	0
6	84774000	0	0	0	0	0	0

7	84775100	0	0	0	0	0	0
8	84775900	0	0	0	0	0	0
9	84778000	1	50	0	0	3,000	9,537
10	84779000	574	3,829	0	0	0	0
11	84807100	58,181	222,533	48,015	654,770	7,039	254,162
12	84807900	34,409	147,174	1,610	10,945	3,739	3,854
Total		93,165	373,587	68,924	1,624,825	48,253	809,247

Source: National Bureau of Statistics UAE

Table 11: Re-Export of plastic processing machinery

	HS CODE	RE-EXPORT 2007		RE-EXPORT 2008		RE-EXPORT 2009	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84431600	0	0	89,086	1,948,741	47,029	735,290
2	84440000	627,323	4,001,651	5,813	26,941	1,086	46,891
3	84771000	156,188	1,502,435	327,713	2,156,782	547,563	8,494,216
4	84772000	65,603	122,993	79,588	624,962	56,330	1,154,051
5	84773000	130,365	1,868,292	109,337	435,946	150,801	3,936,859
6	84774000	6,780	222,987	210,286	226,590	63,769	2,829,375
7	84775100	90,753	295,221	68,238	180,627	128,880	309,061
8	84775900	65,482	352,356	174,049	360,456	60,797	1,017,851
9	84778000	231,450	1,750,549	450,922	2,262,566	176,755	1,022,658
10	84779000	227,441	3,533,042	96,529	2,216,380	379,757	3,135,944
11	84807100	114,572	1,012,177	77,907	881,880	66,864	247,153
12	84807900	0	0	10,619	273,023	17,636	81,104
Total		1,715,956	14,661,705	1,700,086	11,594,892	1,697,266	23,010,453

Source: National Bureau of Statistics UAE

4.3.3. Glass processing machinery

Table 12: Import of glass processing machinery

	HS CODE	IMPORT 2007			IMPORT 2008			IMPORT 2009		
		Weight (KG)	Value (US\$)	% of Value	Weight (KG)	Value (US\$)	% of Value	Weight (KG)	Value US\$	% of Value
1	84178040	678,707	2,784,509	2.96%	329,164	6,130,582	5.13%	33,179	120,472	0.26%
2	84201000	134,878	1,282,557	1.36%	130,755	950,898	0.80%	40,592	332,448	0.71%
3	84209900	11,479	311,677	0.33%	68,595	521,737	0.44%	78,656	537,047	1.15%
4	84641000	596,185	5,044,557	5.36%	1,393,604	13,811,534	11.55%	529,773	2,493,129	5.32%
5	84642000	1,701,853	10,399,389	11.05%	571,527	7,155,208	5.98%	469,567	4,440,284	9.47%
6	84649000	1,251,107	10,742,964	11.42%	2,040,324	22,498,480	18.82%	1,038,412	6,860,799	14.64%
7	84751000	84,071	7,161,228	7.61%	159,182	6,161,089	5.15%	70,471	612,661	1.31%
8	84752900	1,182,609	19,039,707	20.24%	1,952,484	32,122,837	26.86%	455,634	4,786,573	10.21%

9	84759000	1,389,775	16,613,519	17.66%	578,496	14,427,209	12.07%	381,994	10,424,914	22.24%
10	84805000	125,009	3,123,202	3.32%	101,582	2,670,730	2.23%	163,480	4,911,166	10.48%
11	85461000	273,404	429,862	0.46%	44,557	234,944	0.20%	49,507	417,684	0.89%
12	85469000	1,973,882	17,158,423	18.24%	1,534,906	12,889,854	10.78%	1,145,400	10,941,947	23.34%
		9,402,957	94,091,595	100.00%	8,905,176	119,575,103	100.00%	4,456,666	46,879,124	100.00%

Source: National Bureau of Statistics UAE

Table 13: Export of glass processing machinery

GLAS		EXPORT 2007		EXPORT 2008		EXPORT 2009	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84209900	0	0	0	0	0	0
2	84642000	0	0	0	0	0	0
3	84178040	0	0	0	0	0	0
4	84201000	0	0	0	0	3,000	681
5	84641000	0	0	2,000	4,782	0	0
6	84649000	0	0	0	0	0	0
7	84751000	0	0	4,800	2,559	0	0
8	84752900	0	0	1,265	61,990	0	0
9	84759000	0	0	2,461	96,281	912	164,694
10	84805000	0	0	0	0	0	0
11	85461000	41,000	43,188	11,000	3,004	81,500	20,754
12	85469000	0	0	0	0	24	25
Total		41,000	43,188	48,253	168,616	85,436	186,155

Source: National Bureau of Statistics UAE

Table 14: Re-Export of glass processing machinery

HS CODE	RE-EXPORT 2007		RE-EXPORT 2008		RE-EXPORT 2009	
	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
84209900	12,924	208,111	653,677	178,114	8,196	113,834
84642000	120,216	285,807	405,421	110,469	51,344	193,227
84178040	73,970	392,342	0	0	283	6,204
84201000	53,577	121,728	9,853	2,685	31,112	163,476
84641000	11,747	69,412	83,034	22,625	101,960	363,663
84649000	230,456	667,800	29,327	7,991	250,199	735,467
84751000	68,433	498,276	17,723	4,829	20,592	42,275
84752900	10,969	320,572	47,413	12,919	88	316
84759000	835,034	3,735,035	307,384	83,756	336,911	6,076,612
84805000	8,868	17,861	0	0	53,707	732,759
85461000	82,828	142,280	21,010	5,725	264,153	151,321
85469000	152,929	174,006	218,559	59,553	69,180	142,889
Total	1,661,949	6,633,230	1,793,400	488,665	1,187,725	8,722,044

Source: National Bureau of Statistics UAE

4.3.4. Textile processing machinery

Table 15: Import of textile processing machinery

	HS CODE	IMPORT 2007			IMPORT 2008			IMPORT 2009		
		Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value
1	48221000	54,986	187,667	0.27%	270,411	224,463	0.30%	725,244	539,811	1.06%
2	84209900	11,479	311,677	0.44%	3,392	35,585	0.05%	78,656	537,047	1.05%
3	84451100	14,247	50,614	0.07%	68,595	521,737	0.69%	18,445	70,308	0.14%
4	84451200	54,768	823,585	1.17%	175,810	3,277,893	4.33%	14	135	0.00%
5	84451300	17,034	278,473	0.40%	73,162	328,205	0.43%	6,843	9,162	0.02%
6	84451900	26,670	453,903	0.64%	88,535	1,024,442	1.35%	32,927	183,596	0.36%
7	84452000	691,881	8,390,821	11.92%	6,208	21,132	0.03%	1,234	20,592	0.04%
8	84454000	282,281	7,222,851	10.26%	218,088	9,316,322	12.30%	10,277	173,599	0.34%
9	84459000	218,420	2,388,671	3.39%	96,961	3,706,709	4.89%	108,484	1,100,357	2.15%
10	84461000	6,865	47,154	0.07%	22,539	175,451	0.23%	9,047	51,523	0.10%
11	84462100	134,069	130,699	0.19%	18,803	158,711	0.21%	40,276	131,683	0.26%
12	84462900	0	0	0.00%	13,076	85,026	0.11%	311	8,233	0.02%
13	84463000	620,057	1,237,586	1.76%	881,438	3,729,353	4.92%	438,301	634,486	1.24%
14	84471100	15,045	122,350	0.17%	48,112	274,268	0.36%	28,269	125,671	0.25%
15	84479000	782,956	7,458,650	10.59%	707,711	7,984,221	10.54%	558,834	8,183,070	16.00%
16	84481100	66,051	207,779	0.30%	8,966	174,487	0.23%	23,671	69,937	0.14%
17	84481900	144,225	867,434	1.23%	33,639	521,134	0.69%	38,094	1,482,139	2.90%
18	84482000	118,074	933,297	1.33%	287,683	4,362,188	5.76%	518,511	2,028,818	3.97%
19	84483100	10,907	167,388	0.24%	3,697	35,651	0.05%	3,247	38,446	0.08%
20	84483900	70,301	486,553	0.69%	53,533	819,737	1.08%	34,775	657,623	1.29%
21	84484200	9,927	120,270	0.17%	2,293	86,650	0.11%	10,032	250,291	0.49%
22	84484900	134,003	1,539,207	2.19%	114,525	1,214,776	1.60%	115,666	801,446	1.57%
23	84485900	99,458	1,158,972	1.65%	178,478	1,096,375	1.45%	57,571	425,166	0.83%
24	84501200	6,480,802	17,096,110	24.28%	5,820,298	17,064,709	22.53%	4,113,238	10,731,828	20.99%
25	84501900	470,437	1,505,179	2.14%	467,648	1,547,175	2.04%	402,852	1,093,849	2.14%
26	84502000	891,564	7,566,106	10.75%	935,257	8,363,969	11.04%	993,432	9,355,809	18.30%
27	84511000	131,731	1,608,164	2.28%	110,452	1,668,684	2.20%	274,753	4,202,406	8.22%
28	84512900	162,907	2,321,780	3.30%	177,623	1,767,471	2.33%	209,593	2,348,585	4.59%
29	84514000	284,527	1,283,464	1.82%	212,597	1,582,688	2.09%	286,328	1,416,880	2.77%
30	84515000	188,846	1,158,464	1.65%	73,326	778,962	1.03%	144,291	739,606	1.45%
31	84519000	375,046	3,288,998	4.67%	415,695	4,023,739	5.31%	376,465	3,720,329	7.28%
	Total	12,569,562	70,413,864	100.00%	11,318,140	75,747,449	100%	9,803,973	51,872,038	100.00%

Source: National Bureau of Statistics UAE

Table 16: Export of textile processing machinery

	HS CODE	EXPORT 2007	EXPORT 2008	EXPORT 2009
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Textile		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	48221000	0	0	1,447	3,822	28,272	46,592
2	84209900	0	0	0	0	0	0
3	84451100	0	0	0	0	30	1,401
4	84451200	0	0	0	0	0	0
5	84451300	0	0	15,000	580,000	0	0
6	84451900	0	0	0	0	0	0
7	84452000	0	0	0	0	0	0
8	84454000	0	0	0	0	0	0
9	84459000	474	26,125	0	0	0	0
10	84461000	0	0	0	0	0	0
11	84462100	0	0	0	0	0	0
12	84462900	0	0	0	0	0	0
13	84463000	0	0	0	0	0	0
14	84471100	0	0	0	0	0	0
15	84479000	0	0	0	0	0	0
16	84481100	0	0	0	0	0	0
17	84481900	0	0	0	0	0	0
18	84482000	0	0	0	0	53	2,861
19	84483100	0	0	0	0	0	0
20	84483900	0	0	0	0	0	0
21	84484200	0	0	0	0	0	0
22	84484900	0	0	0	0	0	0
23	84485900	0	0	242	1,158	0	0
24	84501200	2,500	2,452	0	0	0	0
25	84501900	0	0	9,000	272	0	0
26	84502000	0	0	303,800	43,186	5,292,720	8,257,938
27	84511000	0	0	0	0	0	0
28	84512900	0	0	0	0	0	0
29	84514000	3,300	1,498	0	0	0	0
30	84515000	0	0	0	0	0	0
31	84519000	0		0	0	12,000	
Total		6,274	30,076	328,042	624,617	5,333,075	8,308,792

Source: National Bureau of Statistics UAE

Table 17: Re-Export of textile processing machinery

Textile	HS CODE	RE-EXPORT 2007		RE-EXPORT 2008		RE-EXPORT 2008	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	48221000	61,582	48,338	452,419	367,344	93,435	37,276
2	84209900	12,924	208,111	245	8,993	8,196	113,834
3	84451100	410	10,007	18,089	38,349	15,196	64,076
4	84451200	62	4,625	0	0	0	0
5	84451300	53,298	2,295,296	25,000	66,199	300	1,526
6	84451900	458,198	534,838	357	16,175	7,896	42,336
7	84452000	2,000	47,684	184,199	612,991	487	7,884
8	84454000	1,900	37,283	11,000	15,972	9,848	138,202

9	84459000	217,189	674,041	173,652	55,266	93,000	2,764,079
10	84461000	0	0	189,048	1,693,252	775	7,941
11	84462100	725	18,937	23,326	82,033	0	0
12	84462900	50	1,362	3,728	22,791	1,000	136
13	84463000	907,459	1,417,260	331,071	770,222	515,376	1,667,677
14	84471100	242	7,854	15,168	503,149	0	0
15	84479000	384,618	2,459,269	411,419	3,471,573	276,749	4,929,903
16	84481100	35,981	60,036	12,000	16,349	3,018	26,062
17	84481900	8,445	55,896	48,403	241,305	1,131	21,696
18	84482000	281,326	1,147,684	266,835	1,210,074	149,300	2,153,357
19	84483100	60,305	84,446	101	3,235	2,331	76,286
20	84483900	4,703	154,098	54,198	180,398	220,955	4,207,261
21	84484200	25,300	34,784	5	2,669	149	1,431
22	84484900	19,748	391,498	227,414	742,043	138,689	384,881
23	84485900	23,659	143,527	39,607	662,629	38,355	162,342
24	84501200	4,768,986	14,029,400	6,149,835	19,187,288	5,465,582	18,005,822
25	84501900	861,886	1,022,459	431,267	1,402,049	6,009,980	5,842,009
26	84502000	293,843	982,066	885,559	3,688,423	1,063,804	4,387,745
27	84511000	38,170	735,048	353,670	656,132	128,409	526,387
28	84512900	6,535	10,037	24,486	370,838	45,444	205,519
29	84514000	56,717	225,737	92,396	478,914	137,185	292,081
30	84515000	68,682	202,280	29,806	164,576	25,869	234,774
31	84519000	767,811	1,924,081	385,271	1,010,550	220,094	916,806
Total		9,422,750	28,967,983	10,387,151	37,374,436	14,672,552	47,219,330

Source: National Bureau of Statistics UAE

4.3.5. Wood processing machinery

Table 18: Import of wood processing machinery

	HS CODE	IMPORT 2007			IMPORT 2008			IMPORT 2009		
		Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value	Weight (KG)	Value (US\$)	Percent of Value
1	84651000	474,304	4,353,649	10.44%	572,125	4,959,951	7.30%	1,771,023	13,684,596	32.04%
2	84659100	1,308,963	6,633,367	15.90%	1,311,572	8,136,805	11.98%	1,054,636	6,352,171	14.87%
3	84659200	796,201	6,372,979	15.28%	992,541	11,406,284	16.79%	362,043	4,017,659	9.41%
4	84659300	491,242	4,207,992	10.09%	282,278	3,868,845	5.70%	147,188	1,884,778	4.41%
5	84659400	620,714	3,826,159	9.17%	1,364,109	7,341,376	10.81%	576,517	3,087,118	7.23%
6	84659500	452,650	3,674,274	8.81%	823,181	13,043,975	19.20%	454,895	5,594,530	13.10%
7	84659600	212,362	937,319	2.25%	203,223	1,635,524	2.41%	111,111	718,208	1.68%
8	84659900	1,110,890	8,728,395	20.93%	1,563,060	13,659,699	20.11%	656,260	5,854,689	13.71%
9	84793000	723,448	2,972,099	7.13%	1,116,340	3,873,416	5.70%	256,422	1,523,580	3.57%
	Total	6,190,773	41,706,234	100.00%	8,228,429	67,925,875	100.00%	5,390,094	42,717,328	100.00%

Source: National Bureau of Statistics UAE

Table 19: Export of wood processing machinery

Wood	HS CODE	EXPORT 2007		EXPORT 2008		EXPORT 2009	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84651000	10,100	10,899	193,895	11,360	121,577	486,704
2	84659100	0	0	0	0	0	0
3	84659200	7,000	61,989	0	0	0	0
4	84659300	0	0	0	0	0	0
5	84659400	0	0	0	0	110,146	16,349
6	84659500	0	0	7,503	12,262	840	10,794
7	84659600	390,250	22,531	3,000	1,401	20,000	545
8	84659900	0	0	0	0	0	0
9	84793000	0	0	0	0	0	0
Total		407,350	95,419	204,398	25,023	252,563	514,392

Source: National Bureau of Statistics UAE

Table 20: Re-Export of wood processing machinery

Wood	HS CODE	RE-EXPORT 2007		RE-EXPORT 2008		RE-EXPORT 2009	
		Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)	Weight (KG)	Value (US\$)
1	84651000	240,369	567,264	161,014	341,224	44,213	12,047
2	84659100	90,452	390,615	1,132,373	1,034,869	63,870	17,403
3	84659200	31,834	50,903	68,941	508,114	62,742	17,096
4	84659300	39,044	134,564	42,303	314,870	18,215	4,963
5	84659400	41,470	176,971	52,506	207,803	193,143	52,628
6	84659500	229,324	3,219,337	141,465	826,023	241,994	65,938
7	84659600	46,497	168,833	30,609	400,009	118	32
8	84659900	408,157	1,271,764	143,394	776,052	130,642	35,597
9	84793000	98,110	275,701	93,078	268,634	152,604	41,581
Total		1,225,257	6,255,951	1,865,682	4,677,599	907,541	247,286

Source: National Bureau of Statistics UAE

4.4. Main competitors

The main competitors for Italian machinery suppliers in the UAE are not players from the local market but other importing nations.

The table below shows the main importer countries for different machinery applications. In the categories of metal, glass and wood processing machinery, Italy is the leading importer to the UAE.

Table 21: Main importing countries for machinery per year

Type of machinery	Importing Country	2006			2007			2008		
		Weight (KG)	Value (US\$)	Share of Value	Weight (KG)	Value (US\$)	Share of Value	Weight (KG)	Value (US\$)	Share of Value
Metal processing	CHINA	2,094,409	4,265,042	5.86%	4,230,829	11,960,709	7.06%	7,777,618	7,870,528	7.77%
	GERMANY	725,445	8,544,932	11.75%	1,209,604	15,490,168	9.14%	2,390,046	11,318,165	11.18%
	ITALY	1,771,201	17,780,365	24.44%	3,933,784	44,011,916	25.97%	5,742,867	27,896,528	27.54%
	UNITED KINGDOM	391,878	6,136,144	8.43%	62,185	853,186	0.50%	1,687,910	2,711,724	2.68%
	USA	509,398	18,491,917	25.42%	415,504	8,922,299	5.26%	1,722,860	7,141,816	7.05%
	INDIA	464,724	1,817,315	2.50%	1,068,245	3,348,477	1.98%	2,427,272	6,945,591	6.86%
Plastic processing	CHINA	1,415,476	7,244,402	11.03%	2,430,282	12,185,338	11.66%	4,622,565	34,350,477	11.87%
	GERMANY	665,772	13,282,842	20.23%	2,770,426	54,192,236	51.87%	1,220,833	35,395,036	12.23%
	ITALY	570,050	12,085,506	18.41%	951,909	15,782,168	15.11%	2,187,793	34,725,244	12.00%
	TAIWAN	433,830	6,351,317	9.67%	636,866	6,370,992	6.10%	937,600	9,857,739	3.41%
	TURKEY	9,071	8,562,855	13.04%	7,745	188,805	0.18%	789,708	3,384,366	1.17%
	INDIA	767,078	3,414,337	5.20%	802,909	5,792,596	5.54%	1,316,529	13,466,622	4.65%
	NETHERLANDS	851	80,983	0.12%	4,897	539,862	0.52%	1,121,276	42,068,318	14.53%
	USA	36,889	1,039,808	1.58%	131,089	2,497,654	2.39%	2,165,566	72,053,857	24.89%
Glas processing	FINLAND	370,049	7819705.8	14.61%	264,976	6,099,282	11.76%	363,728	12,033,499	9.63%
	FRANCE	179,994	2438695.88	4.56%	747,962	8,827,683	17.02%	470,509	11,519,413	9.22%
	GERMANY	1,231,183	10875695.6	20.32%	822,230	13,455,281	25.94%	1,169,357	16,019,711	12.82%
	ITALY	389,073	5786582.91	10.81%	655,718	8,589,074	16.56%	1,035,713	20,384,514	16.32%
	USA	917,784	6278290.82	11.73%	894,185	7,805,895	15.05%	1,135,791	12,060,242	9.65%
	UNITED KINGDOM	63,604	11289533.9	21.10%	7,625	16,990	0.03%	201,583	3,166,185	2.53%
Textile processing	CHINA	6,199,294	11,138,657	21.85%	6,392,840	14,211,877	13.26%	13,807,981	40,638,596	18.86%
	GERMANY	321,805	4,317,801	8.47%	2,331,579	31,975,675	29.83%	1,299,920	20,716,370	9.61%
	FINLAND	229,847	6,657,501	13.06%	810	18,197	0.02%	168,613	4,399,608	2.04%
	FRANCE	569,369	6,307,250	12.38%	6,885	75,335	0.07%	203,167	2,441,372	1.13%
	ITALY	726,144	4,395,674	12.38%	3,134,345	28,448,076	26.54%	2,740,197	30,885,045	14.33%
	TAIWAN	21,460	200,878	0.39%	599,779	3,976,983	3.71%	175,534	1,726,717	0.80%
	USA	439,099	2,908,665	5.71%	639,025	10,593,507	9.88%	1,869,160	12,042,838	5.59%
	SOUTH KOREA	205,663	853,213	1.67%	470,786	3,179,310	2.97%	4,496,171	19,543,980	9.07%
	THAILAND	1,597,385	6,069,201	11.91%	37,467	111,533	0.10%	5,356,494	24,184,397	11.22%
Wood processing	CHINA	733,711	1,234,146	9.31%	1,335,474	3,084,580	11.93%	1,389,598	3,803,409	5.27%
	GERMANY	250,919	2,587,179	19.52%	389,855	5,601,213	21.66%	756,219	12,040,041	16.70%
	INDIA	151,276	1,273,166	9.60%	63,032	137,015	0.53%	641,298	992,897	1.38%
	ITALY	708,526	4,947,540	37.32%	1,119,050	11,066,502	42.79%	3,129,682	32,128,335	44.55%
	TURKEY	67,692	178,707	1.35%	69,478	740,497	2.86%	843,073	2,974,788	4.13%
	USA	112,189	1,289,743	9.73%	65,540	1,223,604	4.73%	188,476	4,381,454	6.08%
	UNITED KINGDOM	67,115	330,949	2.50%	134,596	1,729,742	6.69%	82,656	916,279	1.27%

Source: Foreign Trade Statistics Abu Dhabi and Dubai, 2008, 2007, 2006

4.5. *Market evolution in the last five years*

The UAE have been flourishing and growing at high rates between 15% and 30%, in the industrial and service sectors. Due to the international financial crisis in mid 2009, the market has slowed down considerably. Many projects have been put on hold and imports have been reduced.

This view is also reflected in the interviews conducted for this survey. Many players in the machinery utilizing market have seen a drop in revenues and/or even had to downsize their businesses, lay off staff and shelve immediate investment plans.

Machinery suppliers have been making good business in the UAE until mid 2009 on the back of ambitious governmental plans to boost local manufacturing and on rising regional and global demand.

In the past 18 months, many projects have slowed down or were cancelled completely.

A lack of liquidity and stricter lending policies by the local banks have further complicated the situation.

4.6. *Mid term future outlook*

The gradual liberalization of external trade through treaties, especially between the GCC countries and the European Union, will further enhance the attractiveness of the UAE market. Another important point in favor of investments into the Emirian economy, which will benefit the boosted establishment of industrial manufacturers, is the renegotiation of property rights in the UAE. Apart from the free trade zones, so far every company needs to have a local "sponsor" who holds a minimum of 51% of the firm. This might change in favor of foreign investors in the near future.

The short and mid-term future potential for machinery suppliers to the UAE is viewed by experts as stagnating.

In comparison to 2008, a high number of machinery utilizing companies witnessed a decline in turnover in 2009. For 2010 many project even worse numbers.

There are a number of machinery utilizers that would like to expand and broaden their product range or widen capacity; however due to the economic situation most of them are hesitant and have delayed such plans until 2011

at the earliest. Many interviewees try to offset this by looking at new export markets and lower their dependency on the UAE market.

From the face-to-face interviews conducted for this research the short term purchase forecast in the individual industries can be estimated:

Table 22: Short term purchase forecast by industry and machine type

Metal machinery type	Units	Plastic machinery type	Units	Glass machinery type	Units	Textile machinery type	Units	Wood machinery type	Units
CNC cutting	150	Cast lines	200	Glass inspection	115	Machinery & Accessories	50	Saws	85
Horizontal machining	145	Injection moulding	100	CNC cutting	65	Software for Design	45	CNC cutters	65
Lathes	140	Extruders	50	Tempering	50	Finishing	40	CNC routers	60
Welding	120	Bag making	50	Double glazing	30	Weaving	40	Panel straightening	33
Horizontal boring	100	Blown film	45	Silicon dispenser	25	Embroidery	38	Sanding	25
Punching	100	Blow moulding	42	Laminating	22	Laboratory equipment	35	Automated lock boring	20
Cylindrical grinding	70	Calendaring	40			Packing equipment	30	Spindle moulders	15
Bending	50	Printing	40						
Hot forging	45	Lamination	38						
		Coiling	38						
		Slitting	35						

Source: estimation from face-to-face interviews

5. Primary research in the machinery utilizing sector

This section of the final research report will highlight the machinery utilizing market in the United Arab Emirates.

First an overview of the machinery utilizing sector specifically will be given. In this section, the report will focus on the local production of metal, plastic, glass, textile and wood products as well as available import and export data. The report will elaborate on the main competitors for Italian machinery suppliers and analyze market evolution in the previous years as well as show opportunities for the future.

5.1. Metal processing machinery

In the metal processing sector 31 interviews were conducted. Metal processing is one of the major industrial applications present in the UAE.

The majority of enterprises in the sector are located in Dubai; therefore 55% of interviews were conducted in this Emirate.

Dubal (Dubai Aluminium), one of the world's largest aluminum smelters is located in the Jebel Ali Free Zone in Dubai. It is wholly state-owned by the Dubai Government. The smelter produces an output of 980,000 metric tons primary aluminum per year. Another aluminum smelter, Emirates Aluminium (EMAL), a joint venture between Dubal and Mubadala, the major investment body of Abu Dhabi, is being built in that Emirate.

Due to the local availability of prime energy resources (natural oil & gas) the UAE has a strong comparative advantage in the energy-intensive metal processing field as this major production cost contributor is considerably smaller in the country. The presence of major upstream production in the country holds a privilege for the downstream metal processing industry in the UAE.

5.1.1. Relevant HS codes

Table 23: HS codes metal processing machinery

HS Code	Description – Metal processing machinery
84561000	Machine-tools operated by laser or other light or photo beam processes
84562000	Machine-tools operated by ultrasonic processes
84563000	Machine-tools operated by electro-discharge processes
84569000	Elec-chem, elec-beam, iunic beam, plasma arc mch tool
84569100	Machine-tools for dry-etching patterns on semiconductor materials
84569900	Other machines-tools by electro-chemical, electron beam, ionic-beam

	or plasma arc processes
84561000	Machine-tools operated by laser or other light or photo beam processes
84571000	Machining centers for working metal.
84572000	Unit construction machines (single station) for working metals.
84573000	Multi-station transfer machines for working metals.
84581100	Horizontal lathes (including turning centers) for removing metal, numerically controlled.
84581900	Horizontal lathes (including turning centers) for removing metal, not numerically controlled.
84589100	Lathes (including turning centers) for removing metal, numerically controlled, other than horizontal
84589900	Lathes (including turning centers) for removing metal, not numerically controlled & not of the horiz
84595100	Milling machines, numerically controlled, knee-type, for removing metal
84595900	Other milling machines, knee-type, for removing metal
84596100	Other milling machines, numerically controlled, for removing metal
84596900	Other milling machines, for removing metal
84601100	Numerically controlled flat-surface grinding machines, for working metal or cermets, in which the po
84601900	Flat-surface grinding machines, for working metal or cermets, in which the positioning in any one ax
84602100	Numerically controlled grinding machines (excluding flat-surface grinding machine), for working meta
84602900	Grinding machines (excluding flat-surface grinding machine), in which the positioning in any one axis
84603100	Sharpening (tools or cutter grinding) machines, for working metals or cermets, numerically controlled
84603900	Sharpening (tools or cutter grinding) machines, for working metals or cermets, not numerically controlled
84604000	Honing or lapping machines for working metal or cermets.
84609000	Machine-tools for debarring, polishing or otherwise finishing metal or cermets by means of grinding
84612000	Shaping or slotting machines, working by removing metal or cermets.
84613000	Broaching machines, working by removing metal or cermets.
84614000	Gear cutting, gear grinding or gear finishing machines, working by removing metal or cermets.
84615000	Sawing or cutting-off machines, working by removing metal or cermets.
84619000	Machine-tools for planning & other machine-tools working by removing metal or cermets, n.e.s.
84621000	Forging or die-stamping machines (including presses) & hammers for working metal.
84622100	Bending, folding, straightening or flattening machines (including presses) for working metal, numeric
84622900	Bending, folding, straightening or flattening machines (including presses) for working metal, not nu
84623100	Shearing machines (including presses), other than combined punching & shearing machines for working
84623900	Shearing machines (including presses), other than combined punching & shearing machines for working

84624100	Punching or notching machines (including presses), including combined punching & shearing machines f
84624900	Punching or notching machines (including presses), including combined punching & shearing machines f
84629100	Hydraulic presses for working metal or metal carbides, n.e.s.
84629900	Presses for working metal or metal carbides, other than of hydraulic type, & those elsewhere specified
84631000	Draw-benches for bars, tubes, profiles, wire or the like for working metal or cermets, without removal
84632000	Thread rolling machines for working metal or cermets, without removing material.
84633000	Machines for working wire of metal or cermets, without removing material.
84639000	Machine-tools for working metal or cermets, without removing materials, n.e.s.

5.1.2. General observations

The majority of companies represented in the sector are small and medium-sized firms (68%); 54% of interviewed enterprises achieve a turnover of over USD 60 million. The export share in the sector is relatively high, 42% of the companies export more than 60% of their production. Main export countries are the GCC (Gulf Cooperation Council) and MENA (Middle East & North Africa) states. The high rate of export is due to the limited size of the local market and the UAE's strategic positioning as an export hub for European, Arabic and Asian markets. Within the GCC a customs union has been created, allowing free trade among the partner states.

Generally, a correlation was observed between the degree of specialization of the company and the export share and target countries. The more specialized a manufacturer's program, the more the products are being marketed globally.

Most enterprises in the UAE metal processing sector are privately owned, larger corporations in turn are governmental.

In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This can be explained through lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out on-going maintenance procedures without external support.

5.1.3. Interviewed companies

Table 24: Interviewed metal working companies

Companies	Year	Empl oyees	Activity	Contact Person	Position	Telephone
Technical Metal Industrial Co LLC	1997	800	Mesh and metal products	Mr. Hikmat Abdul Ghani	Purchasing Manager	00971 2 5502025
Al Khaleej Metal Coat LLC	n/a	250	Metal coating	Mr R.P Singhal	General Manager	00971 4 3390467
Aswan International Engineering Co	n/a	160	Drilling rigs	Mr. Richard Davies	General Manager	00971 4 8851300
Danem Engineering	n/a	400	Steel Fabrication	Mr. Jigo George	Divisional Manager	00971 6 5263494
Emirates Engineering Services & Factories	n/a	210	Steel Fabrication	Mr. Mustafa Hasan	General Manager	00971 50 4840052
HRP Middle East	n/a	250	Well mounted azimuth thrusters	Mr. Khalid Mansuri	General Manager	00971 50 6253506
RAM Metal Industriess	n/a	300	Metal celing	Mr. Ramzi Abdul Kader	Export Manager	00971 4 3472210
Al Arabi Aluminium & rolling Shutters Metal Engineering	n/a	120	Switch gear / panels	Mr. Joseph T.P.	Sales Manager	00971 7 2271700
Al Huraiz Group	n/a	150	Domestic water heaters	Mr. Saji K. Zachariah	General Manager	00971 4 2671777
Belleli Energy	n/a	2,600	Tank farms EPC projects	Mr. Samuele Lenti	Branch Manager	00971 6 526 3734
Dorma Gulf Door Control FZE	n/a	300	Revolving doors	Mr. Mudher Abdul Rahman	Production Manager	00971 4 8020378
Envirotec	n/a	100	Dust Collection System	Mr. Mohammed Manna	General Manager	00971 2 5500095
Lucky Group	n/a	300	Ferrous & Iron	Mr. Salman Shaban	Operations Manager	00971 4 263 7000
Streit Group FZE	n/a	300	Armoured Vehicles Manufacturing	Mr. Scott Strader	General Manager	00971 4 8862901
Al Tadamun Glass & Aluminium L.L.C	n/a	400	Aluminium Curtain Walls	Mr. Waddah Khoury	General Manager	00971 2 5554510
Grandweld	n/a	1,500	Production of offshore vessels	Mr. Jamal S. Abki	General Manager	00971 4 3241044
Al Masaoood Bergum	n/a	2,000	Prefabricated accommodation	Mr. Wicus Forie	Production Manager	00971 4 8802626
Alico: Aluminium &	n/a	2,500	Aluminium	Mr. Edvino Dias	Plant	00971 6 558 2444

Light Industries Co. Ltd			facades		Operations Manager	
Camtech Manufacturing fzco	n/a	87	Ball Valve API 6D	Mr. Sunil Sahani	Sr. Sales & Marketing Engineer	00971 4 8813133
Drydocks World	n/a	8,500	Ship repair + maintenance	Mr. Aziz Saeed Alzaqri	Business Dev. Mgr	00971 4 3450626
Euroasian Ventures FZE	n/a	300	Steel long products	Mr. Amitava Ghosh	Director	00971 4 8865838
Mulk Holdings	n/a	700	Solar thermal systems	Mr. Saadullah Khan	Director Sales & BD	00971 6 7441450
Sun Shine Technical Industries & Trading FZE	n/a	300	Wrought Iron (decorative works / gates)	Mr. Retesh Subhash Tewari	Sales Engineer	00971 6 7424787
National Cables Industries (NCI)	n/a	225	Wires and cables	Mr. Altaf Ahmed	Technical & Quality Control Manager	00971 6 5311888
Abu Dhabi Oilfield Services ADOS	n/a	500	Drilling Equipments	Mr. Zuhair Shehada	Managing Director	00971 2 6344441
Al Serkal Group	n/a	2,500	Pre-cast walls	Mr. Jamal Al Serkal	CEO	00971 4 2869559
Classic Metallic	n/a	124	Aluminium fasteners	Mr. Shabbir Shaikh	Managing Director	00 971 6 5347297
Ducab	n/a	1,000	Cable products	Mr. Graham Cheetham	General Manager	00971 4 8082500
GORICA Industries LLC	n/a	300	Fuel and Water Tankers	Mr. Paul Austin-Price	Sr. BD Mgr	00971 4 8801880
Profiles R.H. (L.L.C.)	n/a	1,800	Steel products	Mr. Fadi Majzoub	Sales Manager	00971 6 5342222
Topaz Engineering	n/a	5,000	Ship building	Mr. Mukesh Doshi	Division Procurement Manager	00971 4 3090109

5.1.4. Production program – Prioritization of subsectors

The diversification within the sector represented by the 31 interviewed companies may, for the sake of simplicity, be divided into five general industries:

- Cable industry
- Construction/building materials
- Shipping and oil & gas rigs/servicing
- Base metals
- Others

The most important subsectors in the Emirian metal processing industry are the construction/building material industry, in which the cable industry can partly be incorporated, and the ship building industry (including oil & gas rigs). Both industries have been hit severely by the global economic crisis but

remain to depict the strongest part of the metal processing sector. Long products such as reinforced bars are in high demand in the UAE market.

5.1.5. Major players

The major companies in the field of metal processing in the UAE include:

- Dubal (Dubai Aluminium Company) www.dubal.ae
- Ducab (Dubai Cables Company) www.ducab.ae → see attached interview
- Drydocks World www.drydocks.gov.ae → see attached interview
- ADBIC (Abu Dhabi Basic Industries Corporation) www.adbic.com
- AMB (Al Masaood Bergum) www.amb.ae → see attached interview

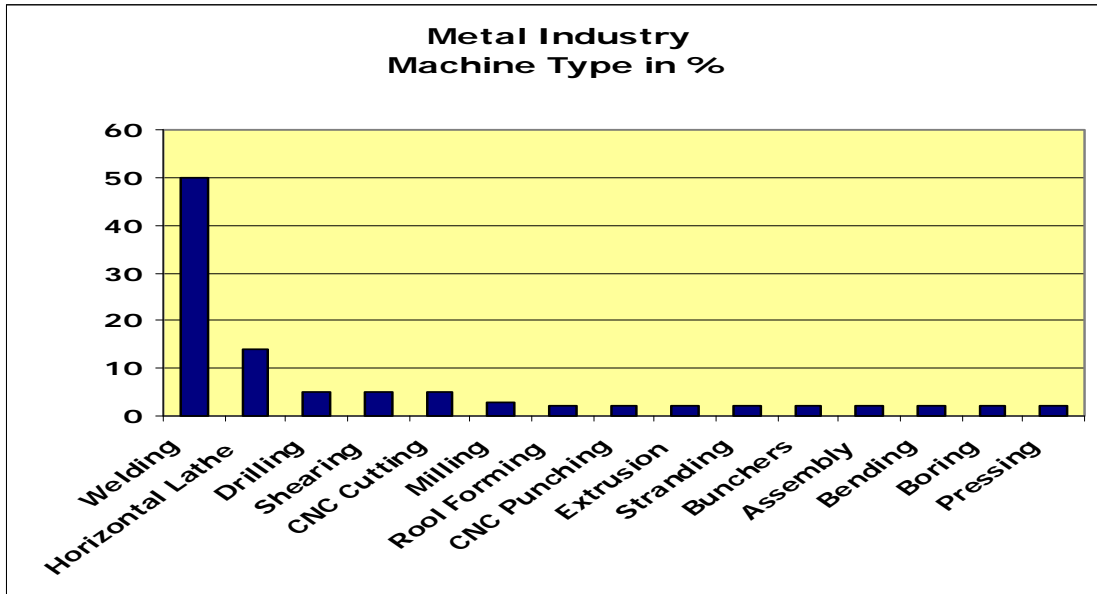
ADBIC acts as a catalyst for building a globally-competitive core of commercially-viable industrial activity through public-private partnerships across the industrial value chain, linking upstream, midstream and downstream sectors.

5.1.6. Production structure

The majority of production processes is executed in-house. Many companies outsource only small parts of the production process or no processes at all. If possible, such outsourcing activities are being contracted out within the same group. Future intentions even show a trend to develop an absolute in-house production scheme.

The machine tool working processes depend on the product and processing technology within the companies. The most common processes are drilling, pressing, sheet bending and sheet cutting. Advanced technologies like laser cutting and EDM have a comparatively much lower prevalence in the industry. The level of automation is rather low, mainly due to very inexpensive labour. Compared to the European metal industry, the majority of Emirian companies have not been in the market for long; 85% have been established for less than 15 years. The age of existing machinery therefore is also low, 78% having been acquired within the last decade.

Illustration 4: Prevalence of different types of metal processing machinery (interview findings)



The greatest market share, according to the findings from the personal interviews, by country of origin is represented by Italy (32%), followed by Germany (16%) and the United Kingdom (10%). The discrepancy with the countries named in (4.4.; Asian suppliers leading) shows a trend for the market to move towards Asian suppliers for new acquisitions (whereas the existing machine park is illustrated below). Another factor causing this imbalance may be that interviewees are asked to answer to the Italian Trade Commission and not a neutral party.

Illustration 5: Metal processing machinery's country of origin (interview findings)

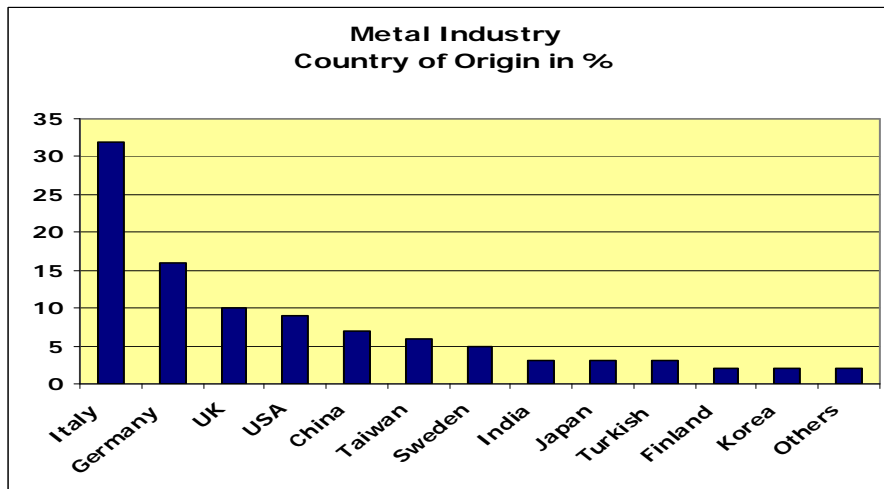
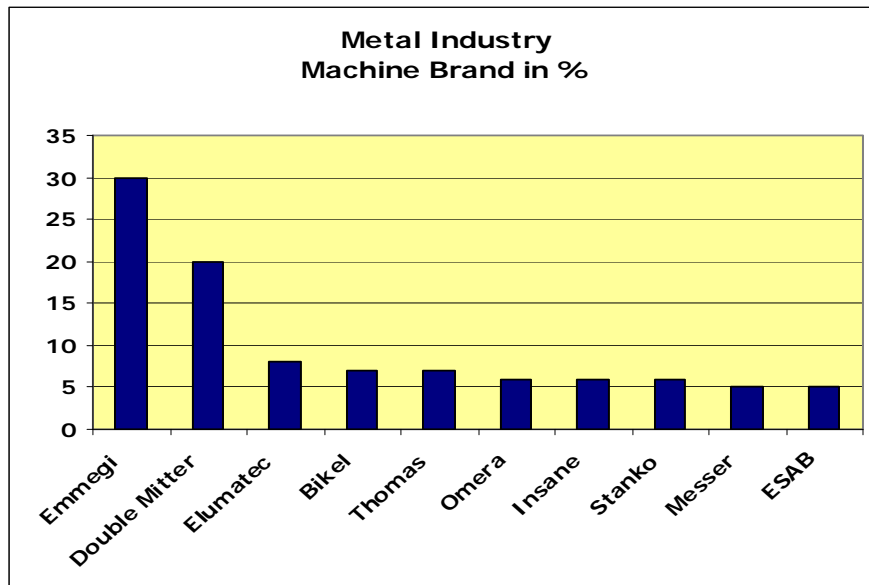


Illustration 6: Installed metal processing machinery by brand (interview findings)



The most recognized brand in the market is the Italian manufacturer Emmegi; the sixth, Omera, is Italian as well. Elumatec is a German manufacturer.

All brands named in the face-to-face interviews are listed here (Italian brands are highlighted):

Table 25: All mentioned metal processing machinery brands

Faccin	Maus	Elumatic	Muraro	Lincoln
Bakers Kollini	Zani	CNC Punching	Aeromatic	SGS 135
OMC	Omera	Heba	Metso	VMC 1850
Enomatic	Beraabi	Hugh Smith	Amada	Daewoo
Emmegi	Esab	Messer	Thomas	Cincinnati
Cerv	Hobo	Webster Benett	Romar	Lefort
Loi	Megabore	Litostroi	Shark	Savio
John Ford	Shrink	Pfaff	Heba	Geze
Glesse Fanuc	OMC	CPFMG	Fronios	Cortinovis
MPASMEC	Samp	PS Costruzioni		

5.1.7. Investment plans in machine tools over the next three years

Recent investments have illustrated the trend towards Asian, namely Chinese, Taiwanese and Indian machinery procurements. These supplier countries so far have captured a market share of 16%, as per the conducted interviews, with a rising tendency. This is underlined by the fact that many interviewees

have already visited or are interested in visiting trade fairs in the Far East to familiarize themselves with possible alternative Asian machinery suppliers.

Almost exclusively all installed machines have been procured from the manufacturer directly without any sort of intermediation. Due to the customized requirements and diverse industries within the sectors, agents and importers of machinery will tend to fail to serve the industry with tailor-made solutions to their production requirement if machinery is being purchased on stock. Furthermore the scope of investments and the risks attached to it would exceed the possible benefit and profit for the local machinery agent. After sales services, which are usually provided by the manufacturer, will also be neglected when purchasing machinery from a dealer.

However, in minimum half of the acquisitions there seems to be no “classical” tender procedure when choosing a suitable manufacturer, but rather established relations with circles of approved and pre-qualified suppliers.

More than two thirds of the interview partners have indicated investment plans for their company within the next three years. Most are in ongoing processes to upgrade and improve their production and management operations. A typical requirement for future machinery is the technology upgrade to CNC machines. Upgrades to EDM and laser cutting technologies have also been indicated. The majority of investment intentions are not related to replacements of existing machines, but rather to expansion strategies. Due to the relatively young average age of the machine in the UAE, the replacement cycle has not been reached yet for most of the production lines. 48% of interviewees have new factories in the planning or construction process; Joint Ventures and acquisitions are coming up for another 33% of interviewed firms. New factories planned in the domestic or foreign markets will result in investments in the existing kind of machinery and likely also into upgraded equipment.

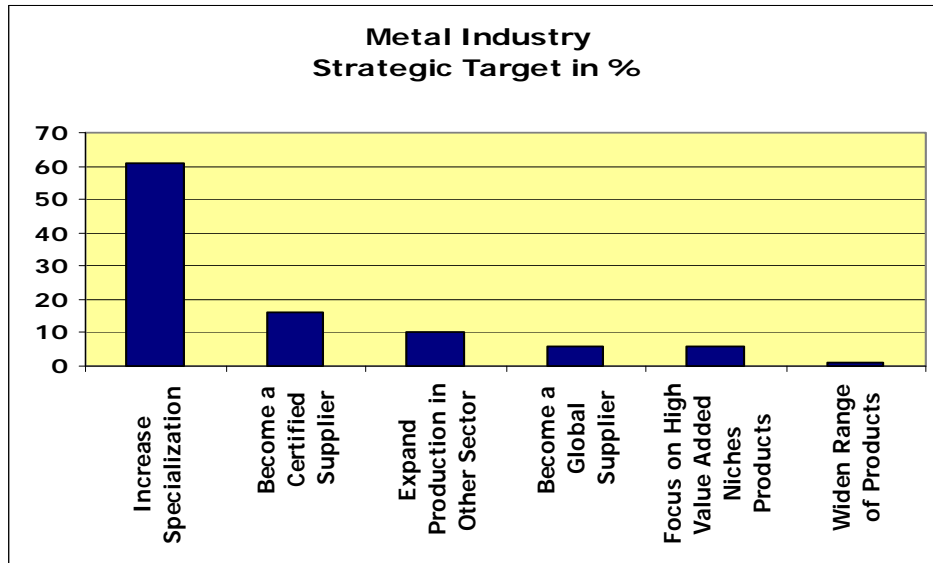
Accessories, spare parts and components are preferably sourced from the machine tool supplier, simply for the reason to obtain all equipment “out of one hand”.

5.1.8. Strategic targets in medium term

The strategic targets of the surveyed companies underline the fact that no level of saturation has been reached yet in the regional (Gulf and Middle Eastern) market. Only 6% of the companies show serious intentions to

becoming a global supplier. Increasing the specialization is the pre-dominant trend among Emirian metal machinery utilizers as 61% of the interview partners stated.

Illustration 7: Strategic targets in medium term (interview findings)



The second most mentioned strategic target in the medium term (16%) is the desire to become a Certified Supplier. This opens opportunities for Italian manufacturers as more advanced, high quality machine tools with more innovative technologies will be needed. Italian suppliers that already are certified will also be able to position themselves advantageously in this regard.

5.1.9. Influence of OEM customers

OEM production is widely represented in the metal processing industry of the UAE. Most interviewed companies sell their produce directly to end-customers or to dealers/wholesalers.

ISO certification (minimum ISO:8000) is the rule in the industry. Other specific British and American certifications are also present in the respective subsectors.

In the ship building industry the whole production process underlies strict pre-qualification rules which make manufacturers eligible as suppliers. This is the only industry in which customers of Emirian metal product manufacturers seem to have more than marginal or little influence on the production

process. The design of products however is being coordinated with the respective end-customers in more than 50% of the surveyed companies. However, few customers, mostly governmental, assign their projects to be executed under great supervision and strict on-site quality control procedures.

5.2. Plastic processing machinery

In the plastic processing sector 22 interviews were conducted. Plastic processing as a downstream application is one of the major industrial applications present in the UAE, due to the country's proximity to the main raw material and the well-developed upstream industry.

The majority of enterprises in the sector are located in Sharjah and Dubai; therefore 69% of interviews were conducted in these Emirates. The Abu Dhabi Polymers Park was launched in 2008. Abu Dhabi Polymers Park was established to fill the niche for an industrial zone that purely targets polymer and plastics converters. As a regional plastics conversion park, Abu Dhabi Polymers Park serves as an essential player in the local plastics cluster of raw material producers, converters, academia and industry organizations. The Park is set to accommodate manufacturing units with a total output capacity of no less than 1 million tons per annum. By leveraging Abu Dhabi's existing up and midstream presence in petrochemicals, the Park is well placed to participate in higher margin downstream production so as to broaden its manufacturing base and product mix. It creates opportunities for international and regional private investment in developing downstream products for the construction, infrastructure, packaging and OEM segments. 88% of the processing industry's output in Abu Dhabi is being generated by chemicals and plastics.

5.2.1. Relevant HS codes

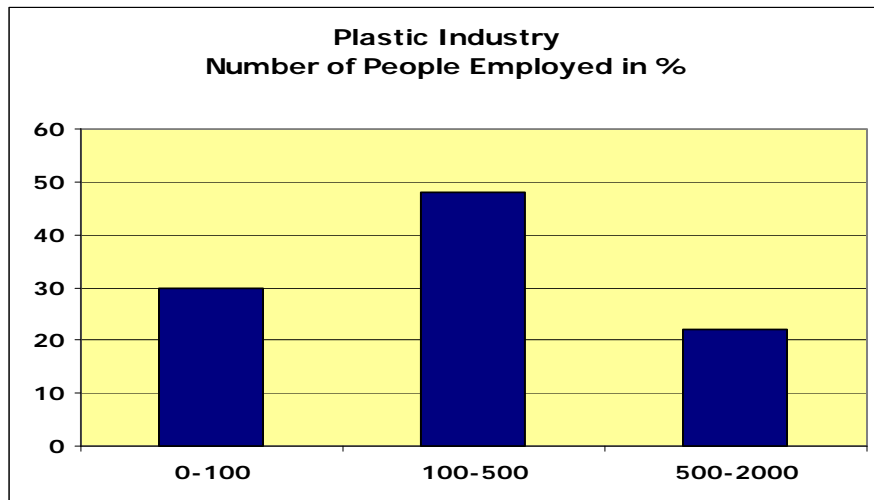
Table 26: Plastic processing machinery HS codes

HS Code	Description – Plastic processing machinery
84431600	Flexographic Printing Machinery
84440000	Machines for extruding, drawing, texturing or cutting man-made textile materials
84771000	Injection-moulding machines
84772000	Extruders
84773000	Blow moulding machines
84774000	Vacuum moulding machines and other thermoforming machines
84775100	For moulding or retreading pneumatic tyres or for moulding or otherwise forming inner tubes
84775900	Other machinery for moulding or otherwise forming
84778000	Other machinery (for working rubber or plastic)
84779000	Parts of machines for working rubber and plastic
84807100	Injection or compression types
84807900	Other, moulds for rubber or plastics

5.2.2. General observations

78% of the surveyed companies are small and medium-sized businesses with up to 500 employees. The remaining 22% employ between 500 and 2,000 workers. The interpretation of this figure may not necessarily indicate the size of a company, but rather the level of automation within the production process, as well as the degree of worker's skills.

Illustration 8: Number of employees in plastic companies (interview findings)



The plastic processing sector exhibits a high rate of export which is due to the limited size of the local market and the UAE's strategic positioning as an export hub for European, Arabic and Asian markets.

Generally a correlation was observed between the degree of specialization of the company and the export share and target countries. The more specialized a manufacturer's program, the more the products are marketed globally.

Most enterprises in the UAE plastic processing sector are privately owned, the large corporations are governmental.

In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This fact can be explained with lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out maintenance procedures without external support.

Compared to the European plastic processing industry, the majority (73%) of Emirian companies within the sector seem to be tenderfoots, established within the last two decades.

5.2.3. Interviewed companies

Table 27: Interviewed plastic working companies

Companies	Year	Empl oyees	Activity	Contact Person	Position	Telephone
Aal Mir Industries LLC	1991	120	Injection Moulding	Mr. Shaji Mathew	Sales Manager	00971 6 5342603
Future Pipe Industries	1971	1,000+	Continuous filament	Mr. Mounib Hatab	Vice President	00971 2 5024555
Pampa Industries	1994	210	Blow Moulding	Mr. Peter Estibeiro	Warehouse In Charge	00971 4 8 817657
Emirates National Factory For Plastic	1995	250	Bag making	Mr. Naushad B Mohd	General Manager	00971 6 5436060
Hepworth PME	1975	600	Pipe extrusion	Mr. Obaidullah	Operations Manager	00971 50 4586749
Shadman Tents Ind. LLC	1996	26	Welding	Mr. Jay Pasebre	Operations Manager	00971 6 5313014
Cupola	1998	130	Lamination Press	Mr. Adnan A. Malik	Factory Manager	00971 4 8 069411
GTA Plastics	n/a	130	Injection Moulding	Mr. Girish Shahani	Sales Executive	00971 4 8 817166
RAK Therm	2003	130	Extrusion	Mr. Ehab Sharaf	Plant Manager	00971 7 2447128
Emirates Polystyrene Industries	1988	175	Injection & Blowing	Mr. B.B. Gupta	Production Manager	00971 4 8816260
Interplast Co. Ltd.	1982	500	Flat sheet extrusion	Mr. A.A. Khan	Plant Manager	00971 6 5338644
Taghleef Industries	1990	270	Film making	Mr. Detlef Schuhmann	CEO	00971 4 8801100
Emirates National Sack Company	1981	300	Extrusion	Mr. C.J. Bomanji	Production Manager	00971 2 5559100
Al Naser Industrial	n/a	n/a	Rotomoulding	Mr. Sanjay	CEO	00971 2 6318044
Emirates Preinsulated Pipes Industries	2000	90	HDPE Extruders	Mr. Ghassan Sahli	General Manager	00971 2 5501991
MOMIN Oil Industry	1992	300	Forming, Moulding	Mr. Mohd.Shoukat Ali Khan	Production Director	00971 4 8819717
United International Clear Packaging	2007	100	Cast processing	Mr. Hani Farouk	General Manager	00971 6 54 22248
Europoxy FZCO	2006	n/a	Injection Moulding	Mr. Nadeem Anjum	Plant Manager	00971 4 8 833791
Bin Hilal Enterprises	2002	n/a	Extrusion	Mr. Santha Kumar	Factory Manager	00971 2 5501336
Best Packaging FZE	1998	32	Rotogravure	Mr. Imran Sabih	General	00971 6 5263313

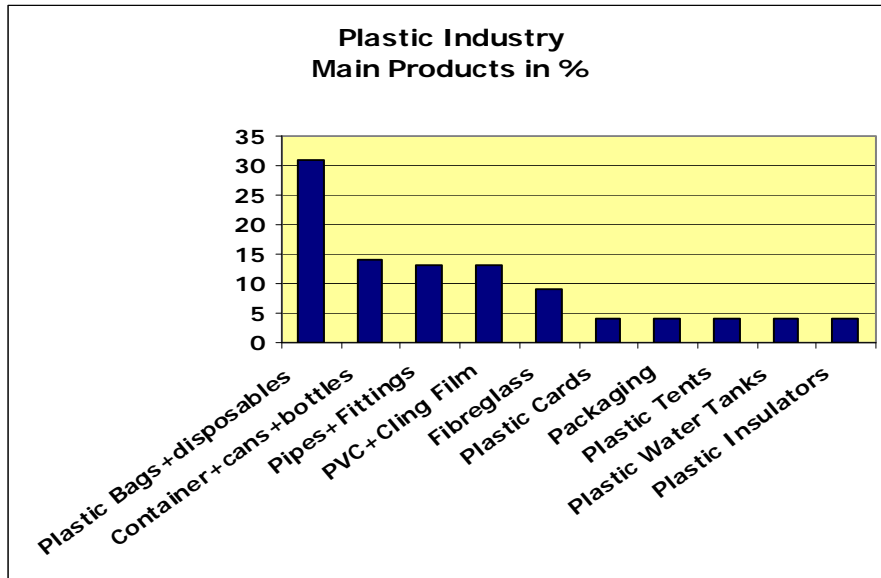
			printing		Manager	
Extra Co Fibre Glass & Prefab House LLC	1977	1000	Filament winding	Mr. George Bou Nasr	CEO	00971 6 5432538
Nuplas Industries	1997	150	Calendering	Mr. Ajay Gor	General Manager	00971 4 8818616
Poly Emirates Plastic Industries	2007	28	Rotomoulding	Mr. Venu Thimainaha	General Manager	00971 2 5500881

5.2.4. Production program – Prioritization of subsectors

The diversification within the sector represented by the 23 interviewed companies may, for the sake of simplicity, be divided into two general industries:

- Construction / building materials / infrastructure
 - Pipes+ittings, fiberglass, water tanks, resins
- Consumer products
 - PVC films, packaging materials/bags, bottles (f&b sector), household items, advanced plastic cards

Illustration 9: Main products in the plastic industry (interview findings)



The most important subsector in the Emirian plastic processing industry is the plastic packaging industry, consisting of plastic bags, disposables, cans, bottles, pvc cling film and other packaging materials.

Pipes and fittings as well as fiberglass also play a vital role in the large construction industry of the GCC region.

5.2.5. Major players

Major players in the field of plastic processing in the UAE include:

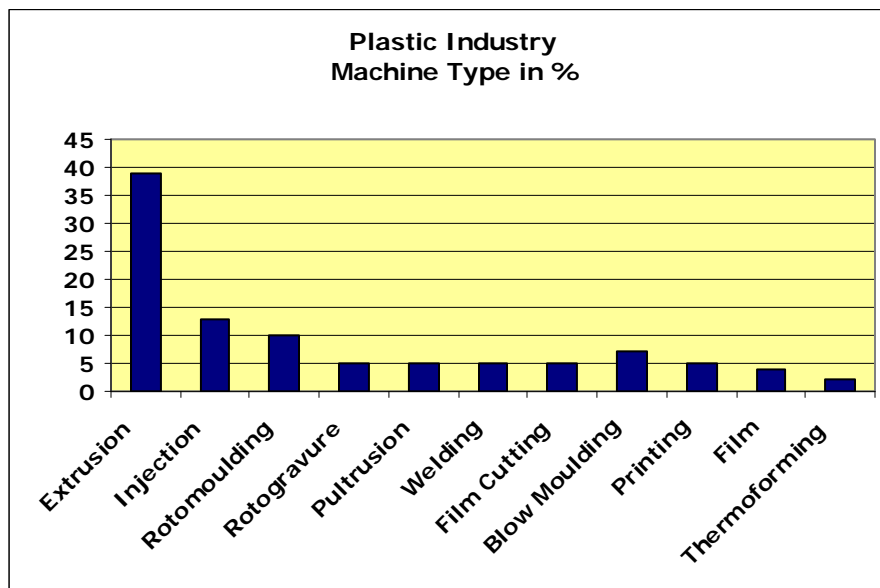
- Cosmoplast Industrial Company www.cosmoplast.com
- Emirates National Factory for Plastic Industry www.futurecard.ae → see attached interview
- Extra Co. www.extraco.ae → see attached interview
- Future Pipe Industries www.futurepipe.com → see attached interview
- Emirates Extruded Polystyrene LLC www.dubaiinvestments.com
- Hepworth PME www.hepworthpme.com → see attached interview
- Gulf Eternit Industries www.gulf-eternit.com

5.2.6. Production structure

The production processes are with a significant majority executed by in-house production.

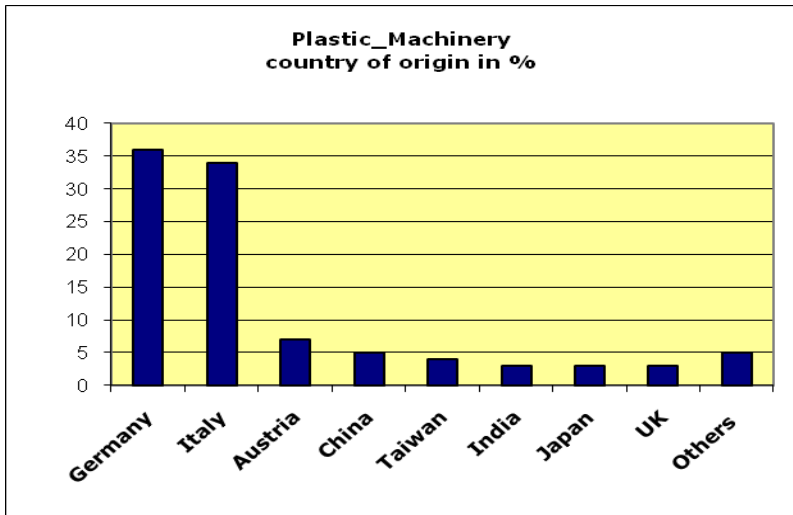
The machine tool working processes depend on the product and processing technology within the companies. The most common processes are Extrusion and Injection Moulding.

Illustration 10: Machine types used in plastic industry (interview findings)



The main machinery supplier countries are Germany and Italy, having a combined market share of 70%. This stands in contrast to recent import statistics which allocate the largest import share to China and India. However as machineries are long-term investments it will probably take a number of years until a change in supplier countries becomes obvious in the existing machine parks of many companies.

Illustration 11: Country of origin of plastic processing machinery (interview findings)



All brands named during the interviews are listed below. The Italian brands are highlighted in yellow.

Krauss Maffai	Robel	Sakurai
Illig	Rotowork + Italwork	Dasys
Heidelberg	Windsor	Omega
Roland	Roch+Roll	Cincinnati
Pea	Asbe	Battenfield
Muehlbauer	Tecnomatic	Jomar
Uniloy		
Arvor		

ISO certification is gaining ground in the industry. Especially in the food & beverage industry it is a requirement to ensure hygienic production. 52% of the surveyed companies have so far acquired ISO certification or other industry specific certificates.

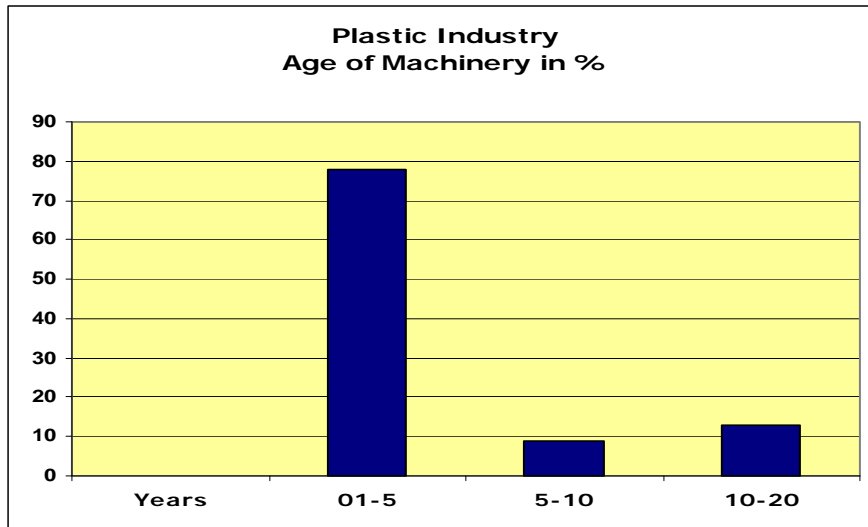
5.2.7. Investment plans in machine tools in the next three years

The trend derived from the import statistics indicates that future equipment is more likely to be sourced from Asian competitors than in previous years. However interviewed companies still showed a strong commitment to European suppliers and have stated to have bought pre-dominantly Italian and German equipment also in recent years.

Almost exclusively all installed machines have been procured from the manufacturer directly without any sort of intermediation. Due to the customized requirements and diverse industries within the sectors, agents and importers of machinery will tend to fail to serve the industry with tailor-made solutions to their production requirement if machinery is being purchased on stock. Furthermore the scope of investments and the risks attached to it would exceed the possible benefit and profit for the local machinery agent. After sales services, which are usually provided by the manufacturer, will also be neglected when purchasing machinery from a dealer.

70% of the surveyed companies have stated the intention to invest in new machinery in the coming two to three years. A typical requirement for future machines is the technology upgrade. The major part of investment plans are not due to replacements of existing machines but rather to be correlated to expansion strategies. Due to the relatively young age average of machines, the replacement cycle has not been reached yet for most of the production lines.

Illustration 12: Age of plastic processing machinery (interview findings)



5.2.8. Strategic targets in medium term

The strategic targets of the surveyed companies underline the fact that there has not been a level of saturation achieved in the regional market. Few companies show serious intentions to become a global supplier, increasing

specialization is rather the trend to be observed in conjunction with widening the range of products.

5.3. Glass processing machinery

In the glass processing sector 21 interviews have been conducted.

The majority of enterprises in the sector are located in Sharjah and Dubai; therefore 86% of interviews have been conducted in these Emirates.

It is worth mentioning that the GCC flat glass industry is composed of a small group of glass producers and a much larger group of fabricators. The former operate integrated facilities that produce both basic float glass and a wide variety of advanced products; the latter purchase basic float glass and concentrate entirely on higher value-added products.

The Emirian glass industry is controlled by a large conglomerate of glass manufacturers, jointly owned by Dubai Investments. The subsidiary companies in this regard are Emirates Glass, Emirates Float Glass, Lumiglass Industries and Saudi American Glass (located in Saudi Arabia).

5.3.1. Relevant HS codes

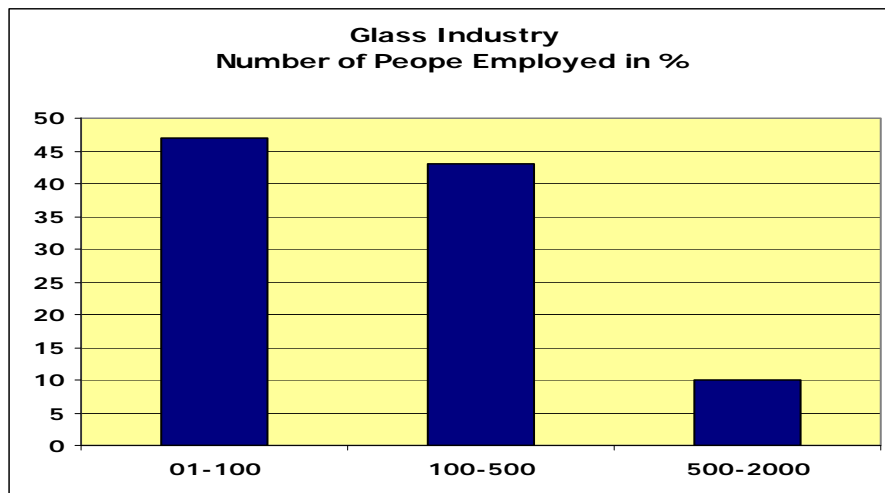
Table 28: HS codes glass processing machinery

HS Code	Description – Glass processing machinery
84178040	Ovens & furnaces used in the glass industries, non-electric.
84201000	Calendaring or other rolling machines, other than for metals or glass.
84209900	Parts of calendaring or other rolling machines, other than for metals or glass, excluding cylinders for use thereof.
84641000	Sawing machines for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass.
84642000	Grinding or polishing machines for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass.
84649000	Machine-tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass (excluding sawing, grinding or polishing machines).
84751000	Machines for assembling electric or electronic lamps, tubes or valves or flashbulbs, in glass envelopes.
84752900	Machines for manufacturing or hot working glass or glassware, other than machines for making optical fibers & performs thereof.
84759000	Parts of machines for assembling electric or electronic lamps, tubes or valves or flash bulbs, in glass envelopes; parts of machines for manufacturing or hot working glass or glassware.
84805000	Moulds for glass.
85461000	Electrical insulators of glass.
85469000	Electrical insulators other than those of glass or ceramics.

5.3.2. General observations

90% of the surveyed companies are small and medium-sized businesses with up to 500 employees. The remaining 10% employ between 500 and 2,000 workers. For the majority of companies sales turnover is below USD 50 million per year, apart from some major corporations active in the market.

Table 13: Size of companies by number of employees (interview findings)



The export share is very low in comparison to the other sectors investigated in this study, the average being 17%. This indicates a strong internal demand of the sector. Generally a correlation is to be observed between the specialization of the company and the export share and markets. The more specialized a firm manufactures, the more it markets its products globally. Many companies have entered the glass processing industry in the boom years of 2007 and 2008. According to interviewees the UAE market is saturated with processed glass products.

5.3.3. Interviewed companies

Table 29: Interviewed glass working companies

Companies	Year	Emplo yees	Activity	Contact Person	Position	Telephone
Al Abbar Architectural Glass	2001	300	Glass for exterior and interior use	Mr. Mike Commarmond	General Manager	00971 4 3331362
Burhani Glass	2005	200	Architectural Glass Processions	Mr. Pedro Caliwag Jr	Production Manager	00971 4 3200448
Glass World Industries LLC	2000	70	Flat glass & all other kinds of glass	Mr. Khuzema S. K	Business Dev. Mgr	00971 4 3333606

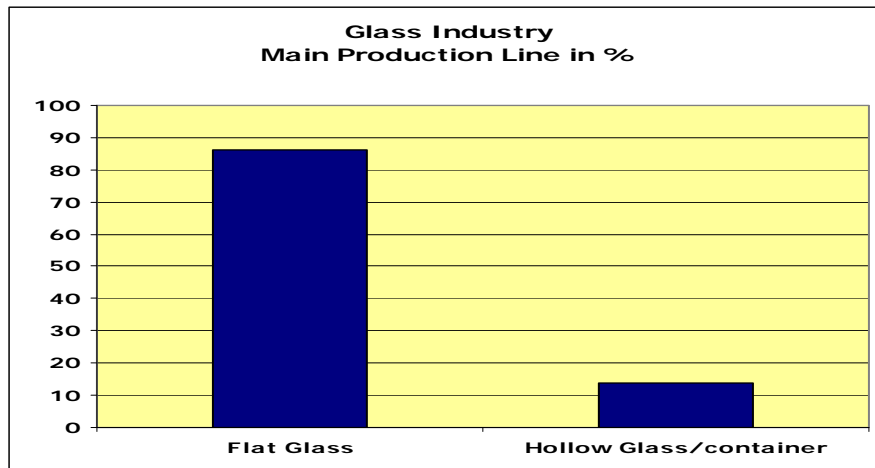
Lumi Glass Industries LLC	2003	182	Bullet proof resistant glass	Mr. Sultan Al Zarif	General Manager	00971 4 3403919
Thomas Bennett Gulf LLC	1977	1000+	Aluminium & Glazing Systems	Mr. Lee Marshall	Bid Manager	00971 4 3381919
Saaed Saif Decor LLC	2006	15	Float glass	Mr. Srinivas J	Manager	00971 43 330115
Al Reyami Glass & Aluminium	2005	600	Flat glass	Mr. Mohammed Sageer	Manager	00971 4 3388703
Dorma Gulf Door Controls FZE	1992	300	Glass fitting, accessories	Mr. Mudher Abdul Rahman	Production Manager	00971 4 8020378
Gulf Glass Industries Co. Ltd	1991	350	Flat glass for building	Mr. Alistair Kellock	General Manager	00971 6 5385500
Pearl Coast Glass LLC	2007	45 Factory	Flat glass for Solar & UV	Mr. Samer Ezzeddine	General Manager	00971 4 8853107
Victory Glass & Aluminium	2002	24	Bevelling, polishing, tampering	Mr. Joy Varghese	Manager	00971 4 2674647
Magnum Glass & Aluminium	1996	70+	Flat glass	Mr. Dileep R.K.	Manager	00971 4 3386197
AMS Group	1980	272	Aluminium/glass doors	Mr. Alver Noel	Manager	00971 6 5311444
Emirates Float Glass LLC	2006	300	Float Glass	Mr. Ghassan Mashal	General Manager	00971 2 599 4000
Saif & Partners Glass LLC	1996	26	Complete processing of glass	Mr. Satheesan Nair	Manager	00971 2 5552446
Spectrum Glass	2007	90	Flat glass	Mr. Sohaib Alomari	Manager	00971 2 5502604
Betlehem Aluminium & Glass	2002	50	All types of glass	Mr. George Joseph	General Manager	00971 4 3334285
Ghantoot Gulf Glass Ind. L.L.C	2004	80	Flat glass	Mr. Divakar Shetty	Manager	00971 4 3332511
Jebel Ali Container Glass Factory	1997	300+	Container glass	Mr. Abdul Elah Al Hasso	Manager	00971 4 8817782
Simplex Glass & Aluminium	1999	11	Flat glass building	Mr. M. Anand	Managing Director	00971 4 2673916
Mustafa Abbas Aluminium & Glass	2007	20	Flat glass & colour glass	Mr. Shabbir Ahmed	Manager	00971 4 3331472

5.3.4. Production program – Prioritization of subsectors

The diversification within the sector represented by the 21 surveyed companies is divided, as given in the questionnaire, into:

- Flat Glass
 - Including table glass and solar glass
- Hollow/Container Glass
 - Including technical/pharmaceutical glass

Illustration 14: Main production line glass industry (interview findings)



As visible in the illustration the vast majority of the industry concentrates on the flat glass sector. Therefore this sector must be clearly prioritized. The Emirian flat glass industry caters to the construction industry and is being supported by the fact that glass facades are highly popular in the sector.

5.3.5. Major players

Major players in the Emirian glass processing industry include:

- Emirates Glass LLC www.emiratesglass.com
- Jebel Ali Container Glass Factory FZE www.jacgf.ae → see attached interview
- Al Abbar Group www.alabbargroup.com → see attached interview
- Al Tajir Glass Industries (no website)
- Emirates Float Glass www.efgme.com → see attached interview
- Lumi Glass Industries LLC www.lumiglassindustries.com → see attached interview

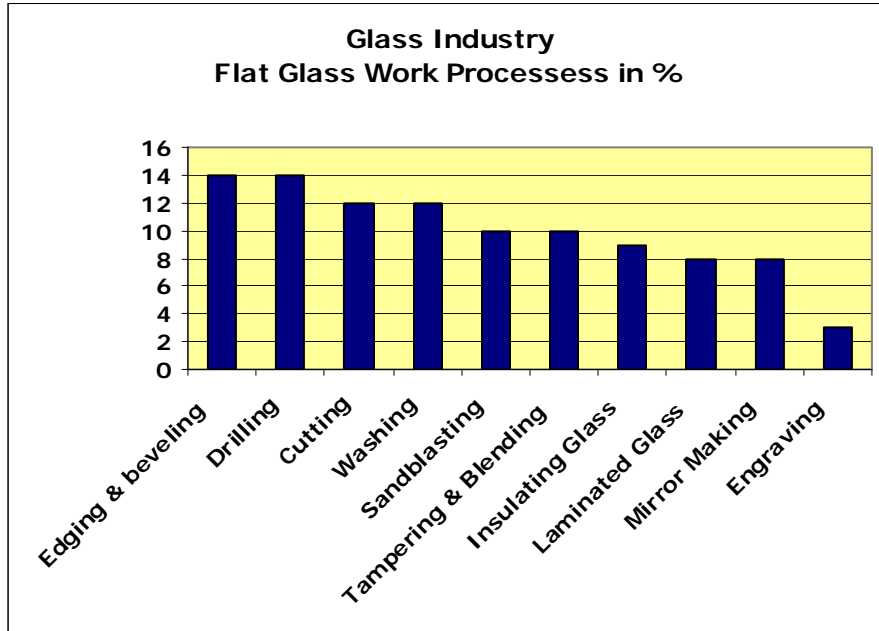
Emirates Glass LLC, Emirates Float Glass and Lumi Glass Industries are part of Dubai Investments which has positioned itself as the regional market leader in flat glass production.

5.3.6. Production structure

The production processes are with a significant majority executed by in-house production. A large number of surveyed companies disregard the option of outsourcing. Especially SME's are eager to guard their business intelligence and know-how due to fear of competition.

The machine tool working processes depend on the product and processing technology within the companies. The most common processes are edging & beveling and drilling (each 14%), followed by cutting and washing (each 12%).

Illustration 15: Prevalent flat glass work processes (interview findings)

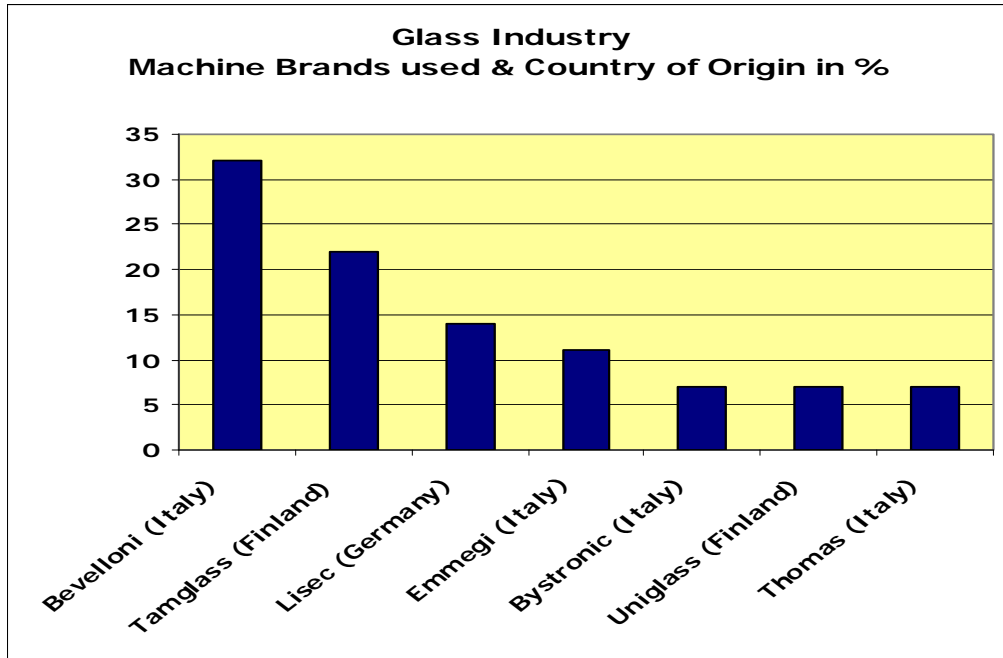


Compared to the European glass industry, the majority of UAE companies within the sector seem to be tenderfoots, established within the last 15 years (85%).

European machinery is leading with great distance in the machine parks of local players. Italy has a market share of 50% according to surveyed companies. Germany is second with a still strong share of 24%. Asian suppliers have not gained a sizeable piece of the market yet. In fact the glass processing industry is the only sector in which, also according to recent import statistics, are still unchallengedly dominant.

The brands mentioned by survey partners (see table on next page) include 1/3 Italian companies, undermining the superiority of Italian suppliers.

Illustration 16: Brands and country of origin of glass processing machinery (interview findings)



These brands have been mentioned during the survey. Italian brands are highlighted in yellow.

Schiatti	Thomas	Tamglass
Bavellonia	MAKA	Uniglass
Emmegi	Alumatec	M.AGR
Baretta Profili	Benteler	Bowman
CMB	Hegla	Emhart
Forel Spa	Rheinhard Technik	CNUD
Triulzi	Fleischle	Enomatic
Malnati	Grenzebach	Bikel
Macotec	Zippe	Lisec
Bottero	Enomatic	Perego
Baudin	Sorg	Bystronic

In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This fact can be explained with lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers

may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out maintenance procedures without external support.

5.3.7. Investment plans in machine tools in the next three years

The potential for used machinery in the float glass industry is set to rise as the present economic conditions push companies planning expansion to cut costs. The GCC's demand for glass, especially solar glass is set to increase during the next decade as a higher number of energy-efficient projects are being planned. European suppliers have noticed a growing number of enquiries from the UAE and the neighbouring countries.

In terms of procurement habits the glass processing machinery market is also presenting an exception to the other sectors included in this study. Whereas generally the utmost part of machine tools is being sourced directly from the manufacturer the glass machinery market hosts powerful local dealers that distribute international brands. The most prominent name is the company Glass & Glazing Technologies which is supposed to be almost ruling the market for glass processing machine tools.

52% of surveyed companies have indicated the intention of buying new equipment in the next years. This number correlates with the 52% of machines being older than five years and therefore possibly due for replacement. Quite a few interviewees also hinted towards expansion plans and the adding of more manufacturing capacity, many of these plans have been put on hold due to the crisis though.

5.4. Textile processing machinery

The Middle East is the fourth largest carpet manufacturer after the USA, Belgium and Holland. The regional industry is expected to grow between 10 and 25% in the next five years. The Middle East has become a gravity point in the global carpet manufacturing industry. Good worldwide distribution channels from Dubai, Jebel Ali and Jeddah ports, combined with low energy and labour costs, as well as the availability of raw materials and the power to invest, give the region a competitive edge. The main producers however are Saudi Arabia and Egypt, not the UAE.

In the textile processing sector 11 interviews have been conducted.

The majority of enterprises in the sector are located in Ajman, Sharjah and Dubai.

In 2005 the UAE textile market has been liberalized. Quotas and tariffs have been phased out since 1995 and restrictions on the import of fabrics and garments have been eliminated.

About 91.5% of raw materials in the sector are imported, only 8.5% can be sourced locally. Major sources of raw material are India, Pakistan and China. Textile export destinations are the European Union, the USA and other GCC countries.

5.4.1. Relevant HS codes

Table 30: HS codes textile processing machinery

HS Code	Description – Textile processing machinery
48221000	Bobbins, spools, cops and similar supports of paper pulp, paper or cardboard (whether or not perforated or hardened), of a kind used for textile yarn
84201010	Calendering or other rolling machines, other than for metals and glass
84209110	Cylinders for calendering or other rolling machines, from cast-iron, other than for metals and glass
84209180	Cylinders for calendering or other rolling machines, other than from cast-iron, other than for metals and glass
84209900	Parts of calendering or rolling machines, excl for metals or glass
84440010	Machines for extruding man-made textile materials
84440090	Other machines for extruding, drawing, texturing or cutting
84451100	Carding machines for preparing textile fibers
84451200	Combing machines for preparing textile fibers
84451300	Drawing or roving machines for preparing textile fibers
84451900	Machines for preparing textile fibers, other than carding, combing or drawing machines

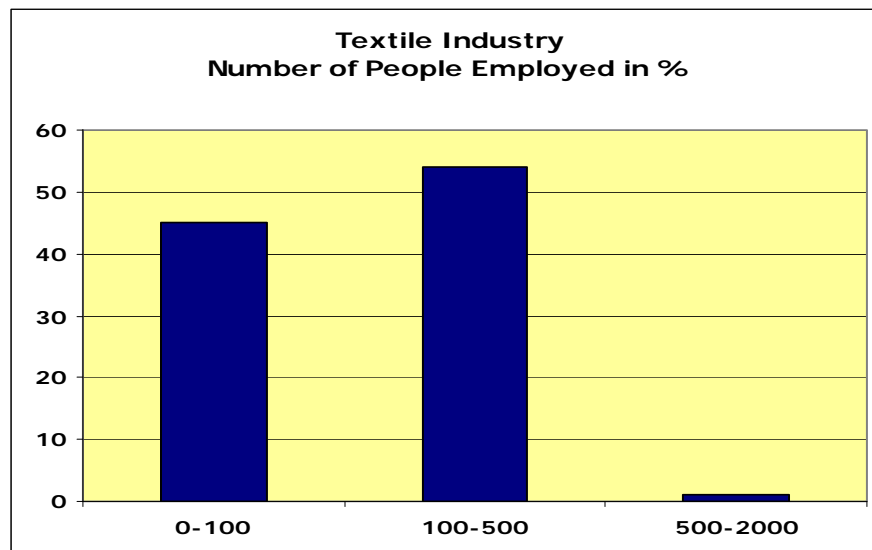
84452000	Textile spinning machines
84453010	Old, used or reconditioned, textile doubling or twisting machine
84453090	Other, textile doubling or twisting machine
84454000	Textile winding (including weft-winding) or reeling machines
84459000	Machinery for producing textile yarns, & machines for preparing textile yarns for use on machines of heading 84.46 or 84.47
84461000	Waving machines (looms) for weaving fabrics of a width not exceeding 30 cm
84462100	Power looms, for weaving fabrics of a width exceeding 30 cm, shuttle type
84462900	Other, machines (looms)
84463000	Weaving machines for weaving fabrics of a width exceeding 30 cm, shuttleless type
84471110	Old, used or reconditioned, circular machine with cylinder diameter not exceeding 165 mm
84471190	Other, circular machine with cylinder diameter not exceeding 165 mm
84471210	Old, used or reconditioned, circular machine with cylinder diameter exceeding 165 mm
84471290	Other, circular machine with cylinder diameter exceeding 165 mm
84472020	Other flat knitting machines
84472080	Flat knitting machines; stitch-bonding machines
84479000	Other, machines for making gimped yarn, tulle, lace, embroidery, trimmings, braid or not and machines for tufting
84481100	Dobbies and Jacquards; card reducing, copying punching or assembling machines for use herewith
84481900	Other, auxiliary machinery for machines of heading No. 84.44,84.45,84.46 & 84.47
84482000	Parts and accessories of machines of heading No.84.44 or of their auxiliary machinery
84483100	Auxiliary machinery for machines of headings
84483200	Parts and accessories of machines for preparing textile fibers, other than card clothing
84483310	Spindles
84483390	Other spindles, spindle flyers, spinning rings and ring travellers
84483900	Other, parts and accessories of machines of heading
84484200	Reeds for looms, healds and healdframes
84484900	Other, parts and accessories of weaving machines (looms) or of their auxiliary machinery
84485110	Cotton hosiery machines
84485190	Sinkers, needles and other articles used in forming stitches
84485900	Parts and accessories of machines of heading No.84.47 or of their auxiliary machinery
84490000	Machinery for the manufacture or finishing of felt or non-wovens in the piece or in shapes including machinery for making felt hats; Blocks for making hats. Household or laundry-type washing machines, including machines which both wash and dry
84501190	Other, fully-automatic machines
84501200	Other machines, with built-in centrifugal drier
84501900	Other, machines, each of a dry linen capacity not exceeding 10 kg
84502000	Machines, each of a dry linen capacity exceeding 10 kg
84511000	Dry-cleaning machines

84512110	Old, used or reconditioned, Each of dry linen capacity not exceeding 10 kg
84512190	Other, each of a dry linen capacity not exceeding 10 kg
84512900	Other, drying machines
84513030	Other Ironing Equipment
84513080	Machinery for ironing mach and pressing
84514000	Other washing, bleaching or dyeing machines
84515000	Machines for reeling, unreeling, folding, cutting or pinking textile fabrics
84518010	Other machinery, coating, laminating or impregnating, textiles machinery
84518030	Machinery for dressing and finishing machine
84518080	Other machinery for use on yarns
84519000	Parts of machinery for washing, cleaning, wringing, drying, ironing, pressing (including fusing presses), bleaching, dyeing, dressing, finishing, coating or impregnating textile yarns, fabrics or made up textile articles & of machines for applying the pas
84794000	Rope or cable making machines

5.4.2. General observations

The majority of companies represented in the sector are small and medium sized enterprises. 42% of surveyed companies have less than 100 employees, the majority of 52% have between 100 and 500 employees. However, the interpretation of this figure may not necessarily indicate the size of a company, but rather the level of automation within the production process, as well as the degree of workers' skills.

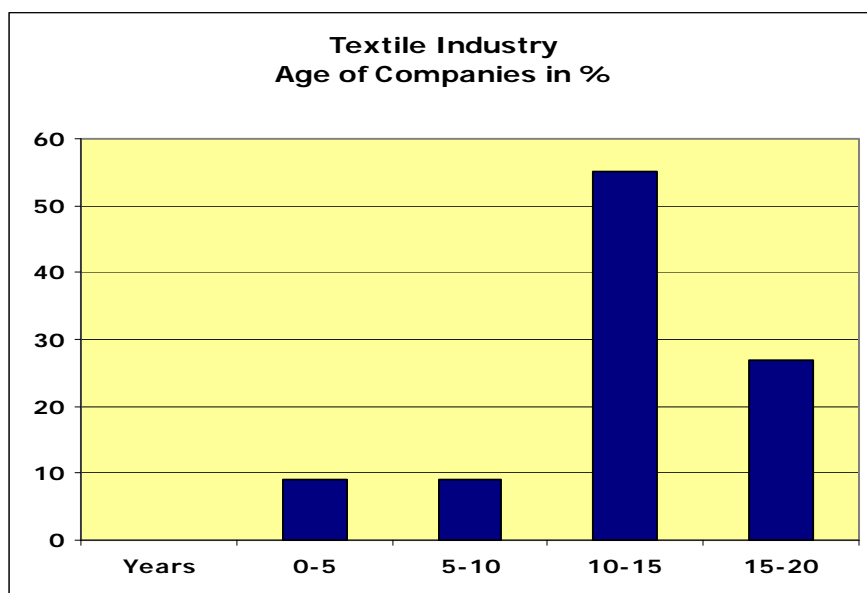
Table 17: Number of employees in textile companies (interview findings)



Most companies found in the field of textile processing are small businesses with not more than USD 10 million sales revenues per year. A few larger players turn over up to USD 50 million. The textile sector in the UAE exhibits an export share of 42% on average. Main markets of export are the other GCC countries, the MENA region and Asia.

Compared to the European textile industry, the majority of UAE companies within the sector seem to be tenderfoots, established within the last 15 years (73%).

Illustration 18: Age of companies in textile sector (interview findings)



5.4.3. Interviewed companies

Table 31: Interviewed textile working companies

Companies	Year	Empl yees	Activity	Contact Person	Position	Telephone
Dream Uniforms	1999	250	Uniforms	Mr. Feizal Virani	Manager	00971 4 3340494
Al Mumtaz Tents & Canopies	1990	100	Hall tents	Mr. Khalid Ahmed Moursey	General Manager	00971 6 5575145
BBM Creation	1995	85	Garments	Mr. Boff Wafaa	General Manager	00971 24490466
Gulf Carpet International	1995	50	Carpets	Mr. Manual A. Abbad	Prod. Supervisor	00971 48812654
Al Khaznah Tannery	2006	75	Finished Leather	Mr. Jean-Marie Gigante	General Manager	00971 2 5662000
Dufill Industries	1996	71	Bed Linen	Mr. K. Rajasekharan	Manager	00971 4 8819942
Carolina Fabrics Limited	1991	750	Yarn, bed linen	Mr. Nadeem Nishat	Manager	009714 8862332
Hanayen; Exclusive Abayas & Sheilas	1990	150	Abayas & sheilas	Mr. Ali Khalil	Manager	00971 4 2670555
CHAMAN Textile	1997	128	Woven	Mr. Mohammad Zia Ul-	Operations	00971 6 5572426

Processing			fabrics	Haq	Manager	
DECO Carpets	1996	250	Plain and printed carpets	Mr. Ch. Waseem Ahsan	General Manager	00971 6 5570292
Italian Textile Solution	2001	300	Stitching	Mr. Fabio Angelini	Executive Manager	00971 2 5635255

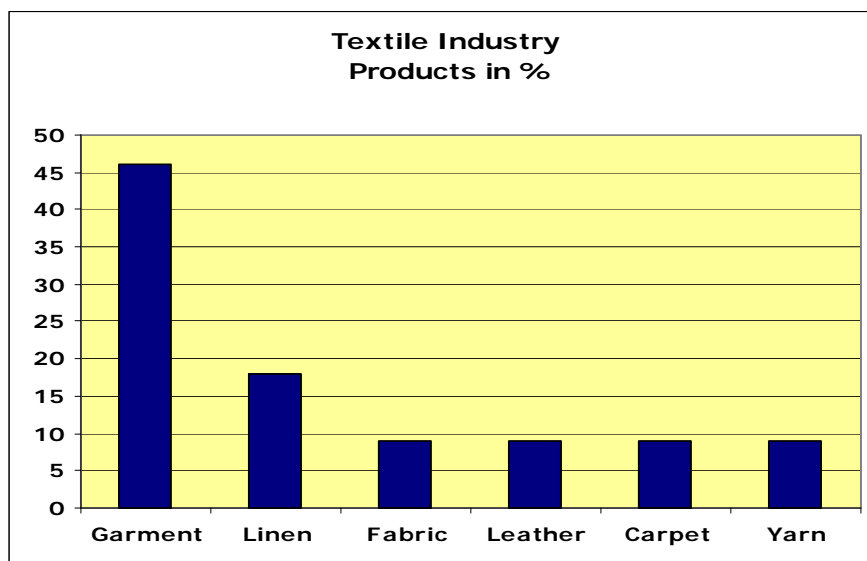
5.4.4. Production program – Prioritization of subsectors

The diversification within the sector represented by the 11 surveyed companies may, for the sake of simplicity, be divided into six general industries:

Garments

- Linen
- Fabrics
- Leather
- Carpets
- Yarn

Illustration 19: Prevalent products in the textile industry (interview findings)



Garment and wearing apparel fabrication is the main application found in the UAE textile industry.

5.4.5. Major players

Major players in the textile processing industry include:

- Carolina Fabrics www.carolina.ae → see attached interview

- Bin Jabr Group of Companies – Italian Textile Solutions www.binjabr.com → see attached interview
- Abu Dhabi National Carpet Factory www.adnc.ae
- ADI International www.adintl.com
- Gulf Carpet International www.jcmclean.com → see attached interview

5.4.6. Production structure

The production processes are with a significant majority executed by in-house production. A large number of surveyed companies disregard the option of outsourcing. Especially SME's are eager to guard their business intelligence and know-how due to fear of competition.

The machine tool working processes depend on the product and processing technology within the companies. The most common process is finishing (28%), followed by weaving and printing (each 13%).

Illustration 20: Textile processes (interview findings)

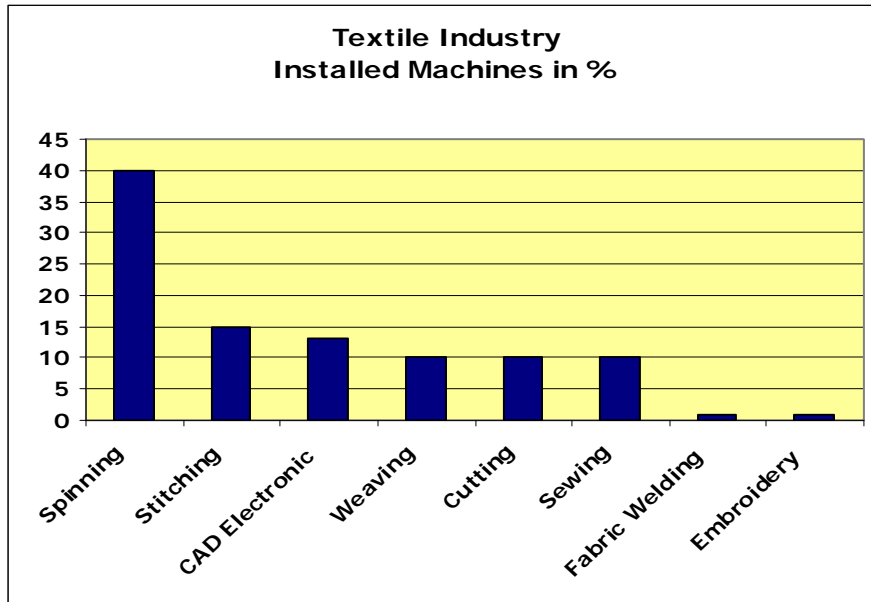


In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This fact can be explained with lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out maintenance procedures without external support.

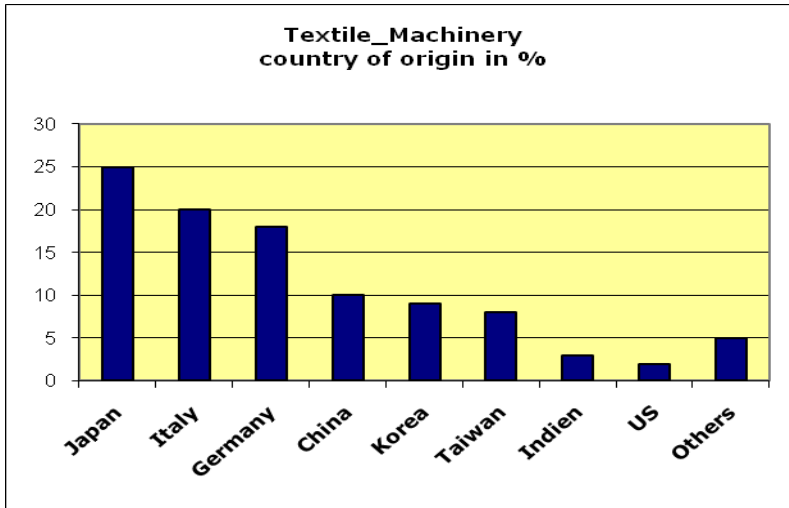
Spinning machines are the most commonly used type of machinery in the UAE textile processing industry. 40% of surveyed companies are making use of these machine tools. Another 15% employ stitching machines.

Illustration 21: Machines types installed in the textile industry (interview findings)



The textile industry is the only sector investigated in this survey that has already moved towards Asian suppliers. As the chart below shows, Japan is the main supplier country in the UAE textile business. 25% of machine tools in the existing machine park have been sourced from the Far East. Following are again Italy and Germany with 20% and 18% market share respectively. The subsequent spots are also mainly taken by Asian manufacturers. An explanation for this may be the fact that the machinery supplier states themselves have strong textile industries and therefore are also advanced in machine tools in this field.

Illustration 22: Country of origin of textile machinery



Brands named by interviewees in the textile industry include the following. Italian brands are highlighted in yellow.

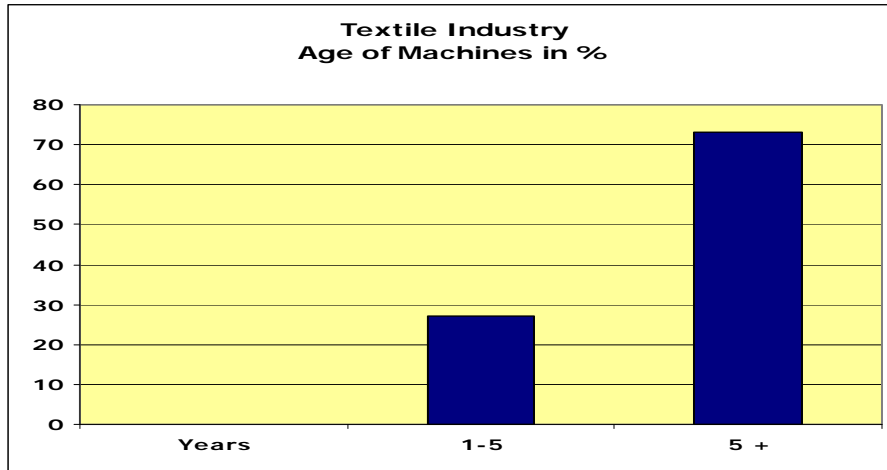
Maluli	Sabio	Progetti
Sulzer	Texpa	Pfaff
Zimmer	Picanol	Luwa
Brothers	Yuki	Uniyama
Maoin	Gerber	Cobble
Toshiba	Tiffco	

In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This fact can be explained with lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out maintenance procedures without external support.

5.4.7. Investment plans in machine tools in the next three years

Illustration 23: Age of machinery in the textile industry (interview findings)

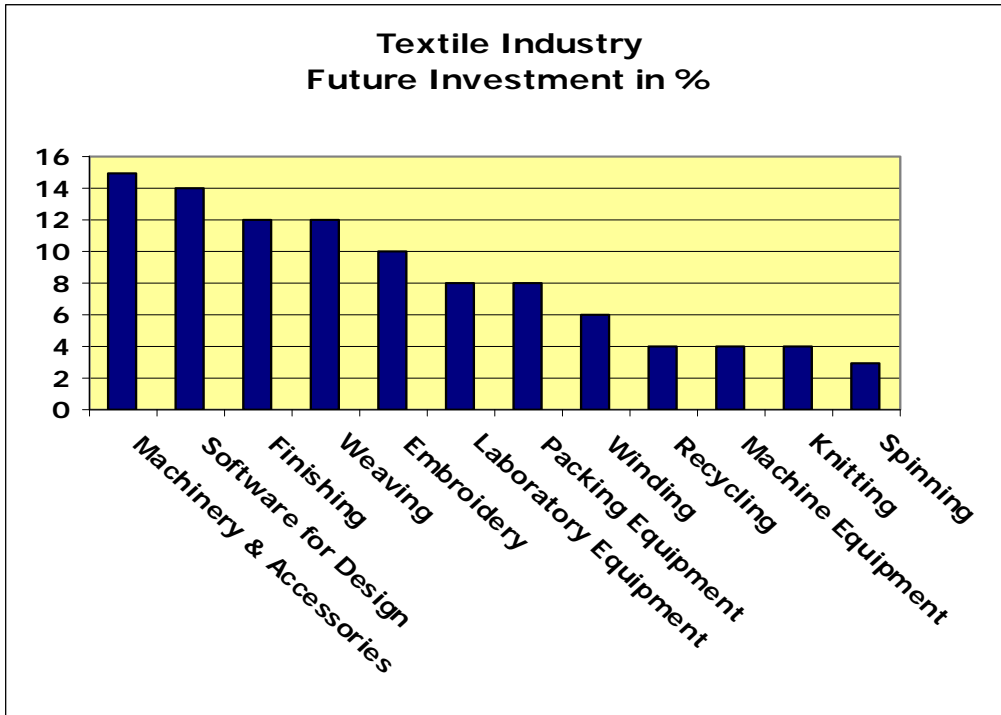


Almost exclusively all installed machines have been procured from the manufacturer directly without any sort of intermediation. Due to the customized requirements and diverse industries within the sectors, agents and importers of machinery will tend to fail to serve the industry with tailor-made solutions to their production requirement if machinery is being purchased on stock. Furthermore the scope of investments and the risks attached to it would exceed the possible benefit and profit for the local machinery agent. After sales services, which are usually provided by the manufacturer, will also be neglected when purchasing machinery from a dealer.

100% of the surveyed companies have stated the intention to invest in new machine tools in the coming two to three years. A typical requirement for future machinery is the technology upgrade. The major part of investment plans are not due to replacements of existing machines but rather to be correlated to expansion strategies. Due to the relatively young age average of machines, the replacement cycle has not been reached yet for most of the production lines.

In a 2005 survey 62% of market players stated that they would adopt more advanced technologies to keep track with the Asian competition. The high percentage of 14% for companies looking to invest in software for design underlines that finding. Other machine types sought after are finishing and weaving machines.

Illustration 24: Future investment in the textile industry (interview findings)



5.5. Wood processing machinery

In the wood processing sector 16 interviews have been conducted.

The majority of enterprises in the sector are located in Sharjah and Dubai; therefore 81% of interviews have been conducted in these Emirates.

In the UAE a lot of joineries and manufacturing outlets produce furniture for the residential, commercial and hospitality sector. The quality of those products is varying. There is a considerable amount of market players in this field which offers their customers to copy every European original product at a fraction of the original price due to lower labour costs in the market. In total 293 companies in the UAE produce furniture for the residential, commercial and hospitality market.

5.5.1. Relevant HS codes

Table 32: HS codes wood processing machinery

HS Code	Description – Wood processing machinery
84651000	Machines, which can carry out different types of machining operations without tool change between such operations, for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659100	Sawing machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659200	Planing, milling or moulding (by cutting) machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659300	Grinding, sanding or polishing machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659400	Bending or assembling machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659500	Drilling or mortising machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659600	Splitting, slicing or paring machines for working wood, cork, bone, hard rubber, hard plastic or similar hard materials.
84659900	Machine-tools (including machines for nailing, stapling, gluing or otherwise assembling) for working wood, cork, bone, hard rubber, hard plastic or similar hard materials, n.e.s.
84793000	Presses for the manufacture of particle board or fiber building board of wood or other ligneous materials & other machinery for treating wood or cork, having individual functions, n.e.s. in Chapter 84.

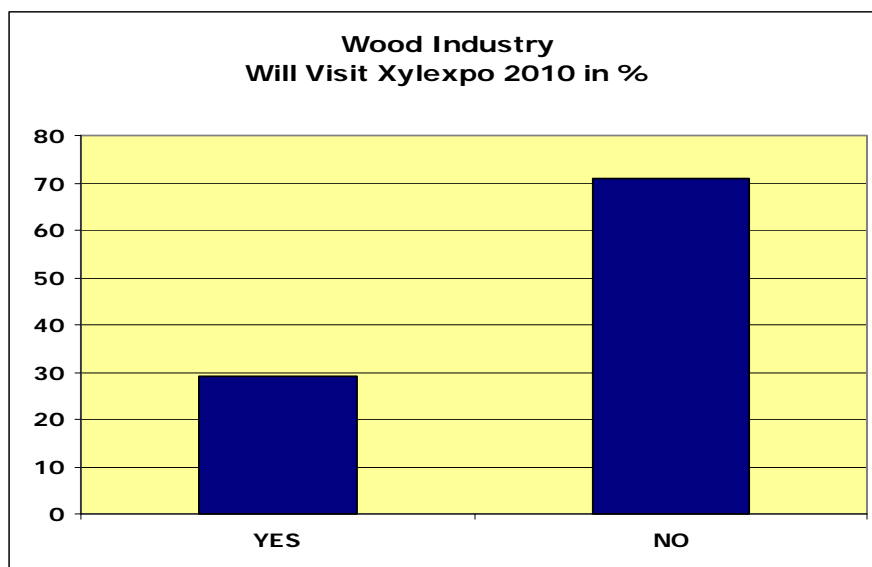
5.5.2. General observations

The majority of companies represented in the sector are small and medium-sized firms, achieving an average turnover of USD 15 million.

Enterprises in the UAE wood processing sector are generally privately owned.

In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This can be explained through lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia). Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out on-going maintenance procedures without external support. The exhibition Xylexpo is known to less than 50% of the UAE industry players. 29% have declared the intention to visit the show in Italy this year.

Illustration 25: Intention to visit Xylexpo (interview findings)



5.5.3. Interviewed companies

Table 33: Interviewed wood working companies

Companies	Year	Employees	Activity	Contact Person	Position	Telephone
Deco Emirates Co. LLC	n/a	n/a	Furniture	Mr. James Hastings	Project Co-ordinator	00971 4 8854660
JASCO International	n/a	n/a	Furniture	Mr. Sridhar Avirneni	Managing Director	00971 6 5571789
Baituti Interiors	n/a	n/a	Furniture & timber	Mr. Santosh	Factory	00971 4 3380745

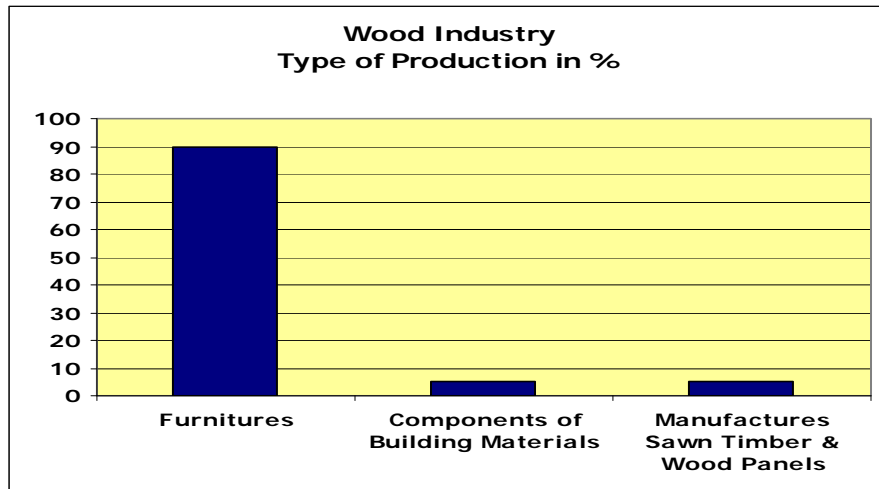
				Nedungadi	Manager	
Michael Andrews Design	n/a	n/a	Furniture & timber	Mr. Neil Donaldson	General Manager	00971 4 3395946
Dovetail Interiors Design	n/a	n/a	Furniture & components	Mr. David A. Beattie	Projects Director	00971 4 3241420
Mohiudeen Wood LLC	1993	n/a	n/a	Mr. Gerard de Rozario	Business Dev. Mgr	00971 6 743 7032
Ghuzlan Emirates Furniture & Décor	n/a	n/a	Furniture & Wood based panels	Eng. Faleh Alhajjaj	Factory Manager	00971 2 5500070
Nebal Furniture Factory	n/a	n/a	Furniture	Mr. Salman Aimahmoud	General Manager	00971 4 2675652
ELDIAR Furniture	n/a	n/a	Furniture	Mr. Lance Limin	Procurement Officer	00971 2 555 5656
The Fitout LLC	n/a	n/a	Furniture	Mr. Prakash Chinnappa	Production Manager	00971 4 3477655
Nestical Space	n/a	n/a	Furniture & timber	Mr. Gilbert Z. Razo	Managing Director	00971 4 3392554
Bond Interiors	n/a	n/a	Furniture & components	Mr. Jihad Adnan	Project Manager	00971 4 2711727
FINMAT Trading LLC	n/a	n/a	Furniture	Mr. J. A. Noun	Managing Director	00971 4 3599202
Al Mashrabia Furniture Industry	n/a	n/a	Furniture	Mr. G. Ethiraj	Business Manager	00971 4 3330883
Kreative ID	n/a	n/a	Furniture & timber	Mr. Mahader	Manager	00971 4 2587780
Touchwood, Decor & Furniture	n/a	n/a	Furniture	Mr. Lamachandran V	Factory Manager	00971 6 5331546
HAKIM Woodworking machinery	n/a	n/a	Agent for SCM	Mr. Mohamed Irshad	Sales Manager	00971 6 5433110
Al Areen	n/a	n/a	Distributor	Mr. Abdulraheem F. ASI	Office Coordinator	00971 4 267 63 00

5.5.4. Production program – Prioritization of subsectors

The diversification within the sector represented by the 16 interviewed companies may, for the sake of simplicity, be divided into three general industries:

- Furniture industry
- Components of building materials
- Manufacturers of sawn timber & wood panels

Illustration 26: Type of production in wood processing industry (interview findings)



The clear focus of the Emirian wood processing industry is the manufacture of furniture. 90% of interviewed players operate in this field.

5.5.5. Major players

Major players in the UAE wood processing industry include:

- DEPA Ltd. www.depa.com
- JC McLean International www.jcmclean.com
- Greenline Interiors www.adcecogroup.com
- JASCO International FZC www.jascointernational.com → see attached interview
- Union Properties The FITOUT www.up.ae → see attached interview
- Ghuzlan Emirates Furniture & Décor www.ghuzlan.ae → see attached interview

5.5.6. Production structure

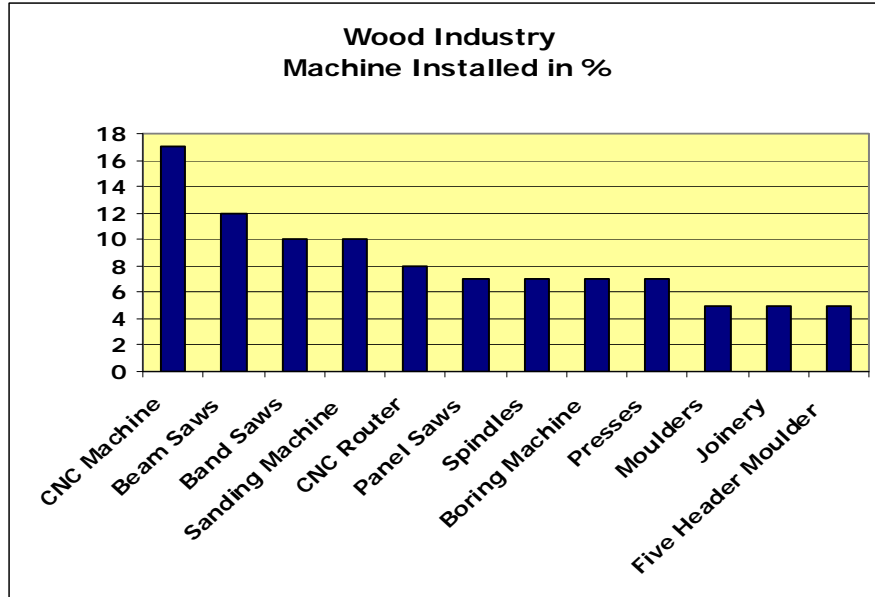
The production processes are with a significant majority executed by in-house production.

The machine tool working processes depend on the product and processing technology within the companies.

The production processes are with a significant majority executed by in-house production. A large number of surveyed companies disregard the option of outsourcing. Especially SME's are eager to guard their business intelligence and know-how due to fear of competition.

Machine types in demand are CNC machines (leading with 17% market share), beam saws (12%), band saws and sanding machines (10% each).

Illustration 27: Machinery installed in wood processing industry (interview findings)

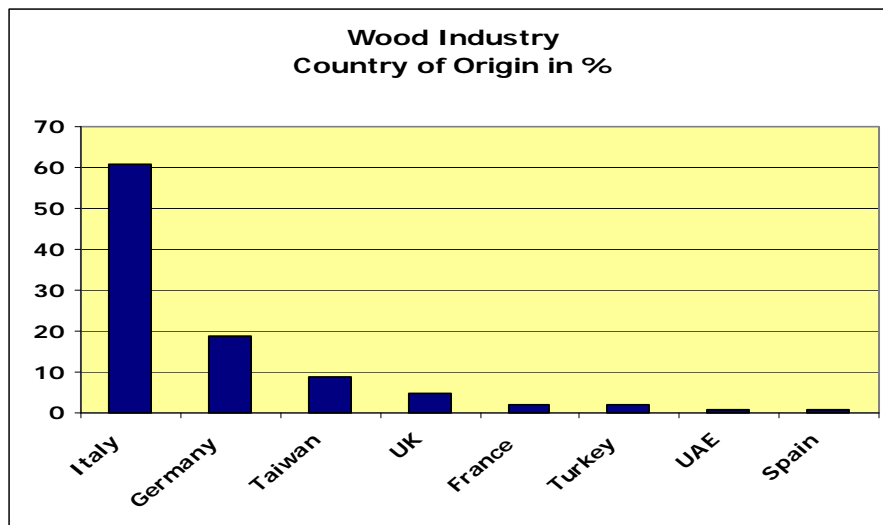


In comparison to the annual sales revenue companies in the UAE employ more workers than customary in Europe. This can be explained through lower levels of automation within the industry and a high percentage of unskilled or semi-skilled labourers in the workforce who gain on-job experience. Both points must be attributed to the availability of low-cost labour. Depending on the industry, some pre-qualified expatriate workers may be employed, having undergone education and specialized technical courses in their country of origin (mainly from South/South East Asia).

Tendencies indicate that more complex European production lines require specialized training of the local staff by the supplier, usually carried out by their technicians upon commissioning of the production line on-site, in fewer cases at the manufacturer's site. That way the company's workforce is able to carry out on-going maintenance procedures without external support.

The wood processing industry in the country is relying pre-dominantly on European machine tool suppliers. Italy is leading the market with a share of 61%, followed in safe distance by Germany with 18%.

Illustration 28: Country of origin of machinery in wood processing (interview findings)



The following brands have been mentioned during the interviews. Italian brands are highlighted in yellow.

OMECA	Biesse	Saomad
Orma	Casati	Wadkin Bursgreen
Steton	Viet	Unic
Sicar	Omga	Cehisa
Vitop	Lazzari	Paintex
Superfici	Castione	ABM
Gabbiani	Anestiwata	Cefla
Morbidelli	Sikar	Catenier
SCM	Griggio	Kremlin
Weeke	Olympia	Holzer
Paloni	Kaeser	Burkle
Savi Guillotine	Homag	

5.5.7. Investment plans in machine tools in the next three years

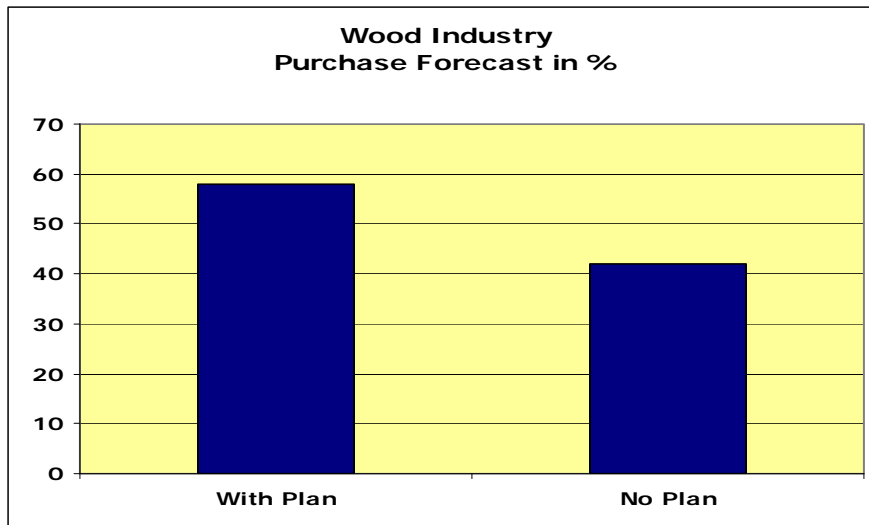
The trend derived from the import statistics indicates that future equipment is more likely to be sourced from Asian competitors than in previous years. However interviewed companies still showed a strong commitment to European suppliers and have stated to have bought pre-dominantly Italian and German equipment also in recent years.

Almost exclusively all installed machines have been procured from the manufacturer directly without any sort of intermediation. Due to the customized requirements and diverse industries within the sectors, agents

and importers of machinery will tend to fail to serve the industry with tailor-made solutions to their production requirement if machinery is being purchased on stock. Furthermore the scope of investments and the risks attached to it would exceed the possible benefit and profit for the local machinery agent. After sales services, which are usually provided by the manufacturer, will also be neglected when purchasing machinery from a dealer.

57% of the surveyed companies have stated the intention to invest in new machine tools in the coming years. A typical requirement for future machinery is the technology upgrade to CNC machines. The major part of investment plans are not due to replacements of existing machines but rather to be correlated to expansion strategies. Due to the relatively young age average of machines, the replacement cycle has not been reached yet for most of the production lines.

Illustration 29: Purchase forecast wood processing industry (interview findings)



6. Recommended marketing strategies for Italian machinery suppliers

This section of the research report will elaborate on Italy's standing in the Emirian machinery utilizing market and the general perception of Italian machinery suppliers and their products in the market. Perceived hurdles and recommendations as to how to overcome them will be displayed. Subsequently the most promising sectors to target will be pointed out.

6.1. General perception of Italy's machinery industry and its products

As per the returned questionnaires and the import statistics of 5.3., Italy is already one of the main suppliers for the concerned types of machinery in the UAE in all sectors; in metal, glass and wood processing machinery even leading.

The high quality of Italian machinery is widely acknowledged in the market. A good share of the major market players has direct experience with Italian suppliers.

During the interviews it was very clearly stated that the companies in the UAE are looking for value for money; reliable machinery for competitive prizes.

6.2. Perceived hurdles for sourcing from Italy

Hurdles for Italian machinery suppliers are found in the so-called soft factors: communication skills, after sales service and warranty/spare parts issues.

As machinery from Italy naturally cannot compete on the same price levels as for example Chinese manufacturers (due to higher labour costs in Europe amongst other factors), those products do always range in the up-scale segment of the market.

The buying of heavy, custom-made machinery is a long-term decision for a company where quality is often more important than the price. Therefore the higher price of Italian machinery per se does not necessarily present an obstacle to the sourcing decision of Emirian market players.

This is perceived as the absolute price as well as the financing schemes offered by the supplier. As most of the machinery represents major investment for clients, many interviewees hinted that Italian companies have

lost market share due to more competitive financing models offered by other export nations.

Additionally it needs to be mentioned that local market players have high expectations in more expensive, high quality equipment. It needs to be accompanied by a comprehensive package of outstanding service, including after sales. This is the point where Italian manufacturers need to improve to keep track with the cheaper, increasingly strong Asian competition.

Problems are arising when the training for the workers on new machines is not intense or long enough or when the machinery is not properly installed. After sales services, maintenance or the availability of spare parts certainly require further improvement in the UAE market. Another point of criticism mentioned in the survey are delivery timelines that have not been met by Italian suppliers.

“Made in Italy” should be explained in detail by the supplying companies as many interviewees annotated that the majority of Italian manufactures outsource major parts of their production to China and only maintain the label “Made in Italy”. This is damaging the reputation of European quality and questions the necessity to invest in the higher priced machine tool “via the diversion” Italy.

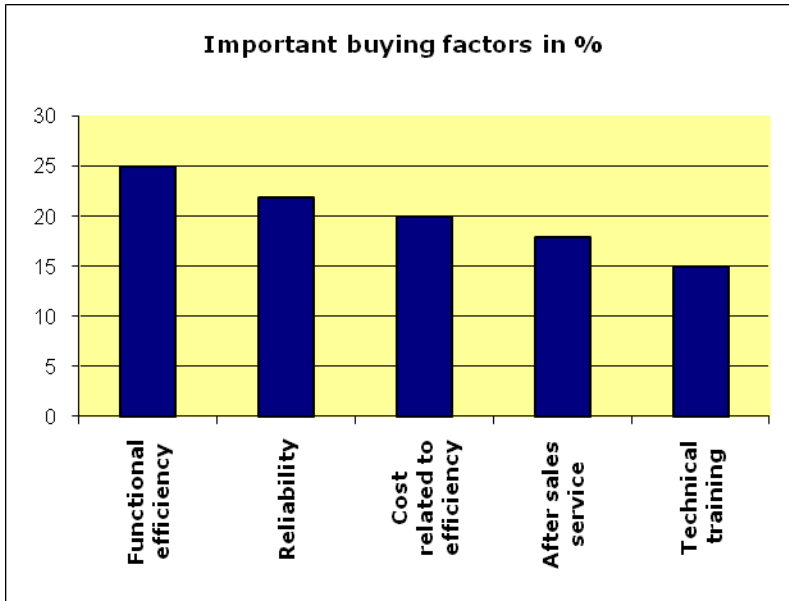
The argument of the unfavorable EUR/AED exchange rate stated by some interviewees as one major hurdle has lost weight to certain extends over the past weeks, but will again be relevant if the EUR recovers from its current low.

6.3. Opportunities for Italian machinery suppliers

The following chart provides an image of which are the important buying factors for Emirian machinery utilizers.

Functional efficiency and therefore quality, as well as reliability, are most important. This is where Italian manufacturers have a strong advantage. The desire for quality and longevity without hiccups in a machine is the reason why many buyers stick to European suppliers to whom they have already built a trustful relationship in many cases.

Illustration 30: Important buying factors (interview findings)



To become more exposed to local customers exhibitions in the region are a valuable tool. To mention just a few: Woodshow Dubai, Aluminium Dubai, Big5 Dubai, Steelfab Sharjah, Building Machinery Abu Dhabi, Gulf Glass Abu Dhabi and MEMEX Abu Dhabi.

Many buyers are continuing to visit established European trade shows, predominantly in preferred sourcing countries like Italy, Germany and the United Kingdom. This is an important means to establish first contacts to local market players. It eases the approach and realizing the opportunity of continuing and expanding trade relations. Especially high volume manufacturers still show an affinity to appreciate the high quality standards of European machine tools, which are being prioritized to the acquisition costs.

The lack of experience of Asian machinery manufacturers may be used to market the strength and expertise of Italy's machinery industry. Providing training, innovative machines and stronger customization is the opportunity for a greater global integration. The trend towards production according to higher international standards and greater specialization in the UAE are indicators for accelerated industrial development. It is recommended to support Emirian customers (or their employees of Asian nationalities) with the application for visit visas to Italy in order to improve mutual understanding and communication.

Many of the industries in focus are relatively closed societies. E.g. in cable manufacturing the companies, their managements respectively, have longstanding customer relationships with Italian suppliers. These are connections to be secured which can be further developed constructively to generate future business.

Stronger support, more frequent communication and more responsiveness to individual needs and requirements will be the key to reliable and successful trade relations.

7. Attachments

- 100 questionnaires from face-to-face interviews
- Database of machinery end-users and importers

8. Sources

- 100 face-to-face interviews with machinery end-users and importers
- Camera di Commercio Italo-Araba: www.cameraitaloaraba.org
- Foreign Trade Statistics UAE, National Bureau of Statistics, UAE
- Foreign Trade Statistics Dubai, Dubai World, UAE
- Foreign Trade Statistics Abu Dhabi, Abu Dhabi Customs Authority, UAE
- Trading Economics: <http://www.tradingeconomics.com/Economics/GDP-Growth-Annual.aspx?Symbol=AED>
- CIA World Factbook: <https://www.cia.gov/library/publications/the-world-factbook/geos/ae.html>
- Laenderinformationen Vereinigte Arabische Emirate, Auswaertiges Amt, Germany, November 2009
- Germany Trade & Invest, Maschinenbau und Anlagenbau Vereingte Arabische Emirate, November 2009
- Doing Business, The World Bank Group: <http://www.doingbusiness.org/economyrankings/>
- Dubai Chamber Industrial Directory 2009, Dubai Chamber of Commerce & Industry
- Abu Dhabi Private Sector Indicators 2008, Abu Dhabi Chamber of Commerce and Industry: <http://www.abudhabichamber.ae/Documents/1182/2124.pdf>
- Ministry of Economy & Planning: <http://www.economy.ae/Arabic/EconomicAndStatisticReports/StatisticReports/StatisticAbstract/Documents/group%202008/ch5-Industry2008.xls>
- U.S. Energy Information Administration: <http://www.eia.doe.gov/cabs/UAE/Oil.html>
- OPEC Organization of the Petroleum Exporting Countries: http://www.opec.org/opec_web/en/about_us/170.htm
- Dubai Strategy Plan 2015: <http://egov.dubai.ae/opt/CMSContent/Active/CORP/en/Documents/DSPE.pdf>
- Abu Dhabi Economic Vision 2030: <http://www.usuaebusiness.org/view/images/uploaded/Abu%20Dhabi%202030%20Vision%20Report.pdf>
- Gulf Capital Group: GCC Industry Report, Manufacturing the future...; January 2008
- Journal of the Emirates Industrial Bank: Reinforcing Steel Bars and Rods Industry in U.A.E., January 2008
- Dubai Chamber of Commerce & Industry: Future of UAE Textile Industry Under Liberalization, 2006