

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

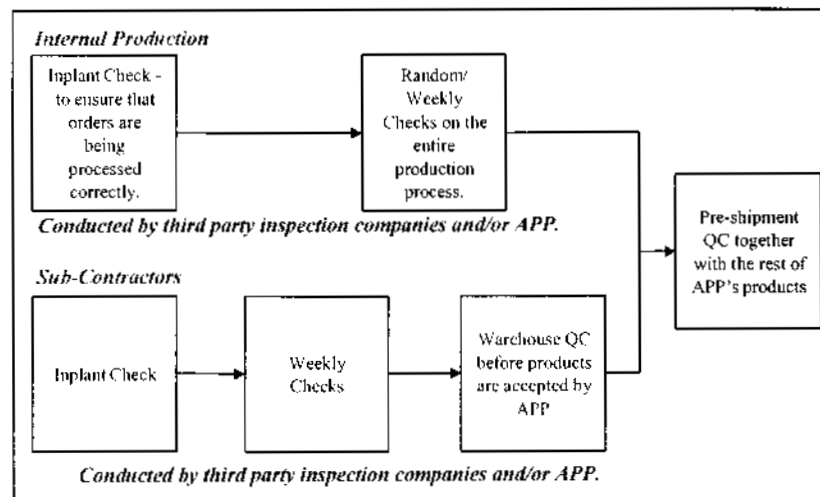
##### 4.5.6 Sources of Raw Materials

The Group sources 95% of its raw materials from local suppliers. Clay is the key raw material for the APPI Group as it makes up approximately 60% of the raw material cost. The Group utilises about 1,600 metric tonne per month or 19,200 metric tonne per annum based on a 12-month production cycle. Supply of clay is abundance in Perak and the directors of APPI believe that the clay deposits in the Perak State will at least meet the industry demand for another hundred years. The other raw materials such as glaze materials used by the Group are reflected under Section 4.8.1 of this Prospectus.

Sourcing and purchasing of raw materials are done by the respective purchasing divisions of each subsidiary companies which adhere to strict procedures to ensure that materials are supplied only by the approved suppliers in order to ensure good quality and cost control. The APPI Group works closely and maintains good relationship with its suppliers to ensure timely and reliable delivery of raw materials. Over 95% of the raw materials are sourced locally. Based on an analysis of APPI's existing suppliers, the Group does not depend on any single supplier for its raw materials. The analysis of the Company's suppliers are detailed in Section 4.8 of this Prospectus.

##### 4.5.7 Quality control

The management of APPI Group maintains strict procedures in quality control. The procedures currently practiced by the Group are developed in-house and/or conducted by third party inspection companies as reflected in the chart below.



Source : APPI & ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)

Over the last 20 years, APPI has ample experience in supplying and growing with these multiple stores and their continuous requirements. Due to the strict QC standards imposed by their customers, APPI has developed its own in-house QC Manuals and Procedures to produce international grade delivery quality. This is to ensure that APPI passes 100% of the third party inspections and no additional costs are incurred due to rejected shipments. The manuals

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**4. INFORMATION ON THE APPI GROUP (Cont'd)**

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are constantly upgraded to ensure that the information is current and relevant to the needs of their customers. These QC manuals incorporate learning from the third party inspection companies as well as APPI's internal experience with their customers, and have proved to be comprehensive in assisting the Group to prevent cost leakage due to failure in passing QC inspections. Mr Ong Sin Beng leads the in-house QC team and he is assisted by three (3) qualified and experienced personnel.

Over the years, as APPI's own QC checks have become very reliable, some very reputable multiple-store customers have allowed APPI's In-house QC to take over the routine third party QC process. This saves both parties from incurring high costs to employ third party QC inspectors. This is proof that APPI's QC procedures are well accepted in the international market and such is the confidence that APPI's customers have of the Group. This is a privilege rarely enjoyed by exporters in the industry.

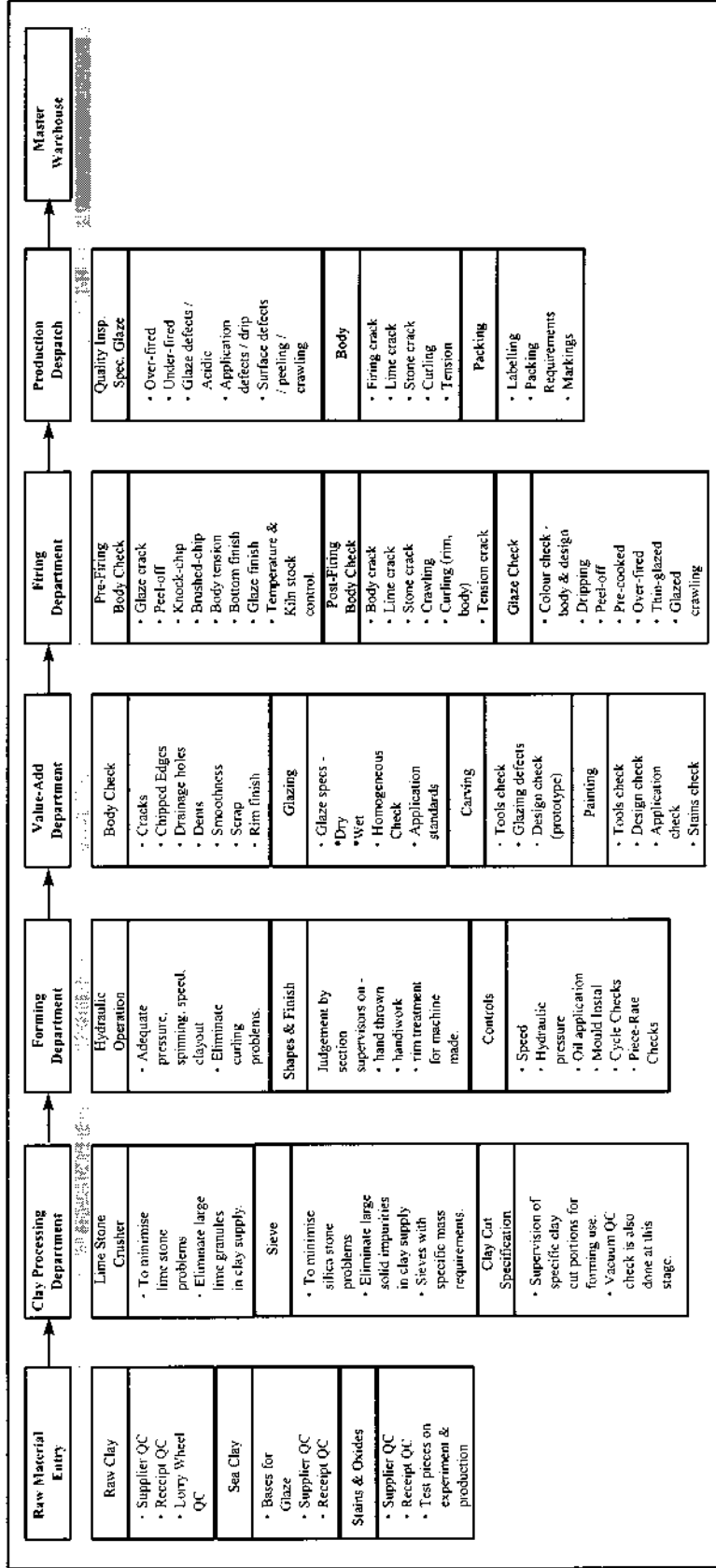
Some of these third party inspection companies include Intertek Testing Services (M) Sdn Bhd, Material Testing Laboratory Inc., Singapore, SGS (M) Sdn Bhd and Bureau Veritas (M) Sdn Bhd. These third party inspection companies specialise in ensuring that products meet with the international quality standards or the quality specified by the APPI's customers.

The process flow chart as detailed in the next page of this Prospectus provides an indication of the types of QC checks made by the QC team.

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4. INFORMATION ON THE APPI GROUP (Cont'd)

Process Flow Chart on Types of QC Checks



Source : APPI

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

The rejection rate for production is approximately 5%. Rejected goods have a high recycling value and are usually not disposed. Instead, unfired items are remixed and reprocessed and then re-used in the forming process, thus, there is almost no wastage for unfired clay. For the rejected fired items, they are crushed, recycled and reformed into kiln support, thus reducing the cost of kiln parts and maintenance or in building or construction of APPI's manufacturing plants. Since the materials are highly reusable, the cost of wastage is insignificant.

##### 4.5.8 R&D

One of the technical problems faced by the industry is the unevenness of the clay contents used in the production. As a result, some finished products do not have the exact finishing and colour as desired. With raw clay extracted from the ground, it consists of many unwanted particles like lime stones, gravel and other minerals. These unwanted substances must be removed before the raw clay can be refined. From the analysis obtained, if certain minerals are found to be lacking in the raw clay, the correct proportion of such minerals must be added before it is processed into a compound clay for production purposes. The APPI Group has set up a R & D centre, with full laboratory equipment to analyse all the raw materials, including the original raw clay to ensure that they are of the highest quality before being further processed; these procedures and analyses are vital so that the content of the clay body is balanced to its formulae in achieving the "Winter Resistant" quality.

##### (i) Policy on R&D

The Group believes that innovation is one of the key factors to sustain its leadership status in existing countries or markets and to further penetrate into more overseas markets. Hence, APPI has invested time and financial resources in R&D efforts to introduce new products and design. The Company's R&D policies are as follows:-

- a) Enhance the existing shapes and create new shapes, designs and colors of the products;
- b) Have a shorter production cycle or lower production & operational cost using new techniques and supporting machinery;
- c) Improve quality by using refined compound clay to ensure consistent final products; and
- d) Provide customer satisfaction through quality and reliability.

##### (ii) R&D Facilities and Personnel Involved

The R&D division of the Company is divided into technical development team and product development team. The technical development team is generally responsible for new technologies and automation and is led by Mr Leong Yew Kin. He is assisted by four (4) team members. On the other hand, the product development team is generally in charge of generating new designs for APPI's range of products and is led by Mr Alex Ang Hong New. He is supported by three (3) other experienced staff. The Group's R&D facilities are situated in Penang and Perak.

##### (iii) Present Status of R&D

The technical development team is responsible for new technologies and automation. This team specialises in building mechanical tools and

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**4. INFORMATION ON THE APPI GROUP (Cont'd)**

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electrical fixtures that enable the team to create in-house machinery that place less emphasis on human induced in consistency in the production line.

In addition, the Group also manages to control and maintain cost of investment in machinery, since these were locally produced, as compared to if they had purchased these machineries from an overseas supplier.

On the other hand, the product development team is responsible for generating new product designs, shapes and colours for the products. The team is responsible to create fashionable theme collections for each season's product range. The team is also responsible for corporate image and brand management by creating a corporate identity and harmonizing the total concept of all advertisements and printed materials for the Group.

To cater for the different tastes in the European, Asian and US markets, the team visits international household interior decoration shows in Germany and Italy, where designs displayed are meant for commercial production 18 months later. The team is then able to gauge which products are more well received by the different regions. In addition, feedback from existing customers are also very useful when determining marketable designs, where some of APPI's customers even propose new designs of their own.

APPI also accept custom-made design from customers, other than those designs launched by the Company. For custom-made design, the R&D center will carefully examine before being manufactured by the APPI Group.

The product development team works closely with the mould makers to ensure that the new products designed can be mass manufactured by conventional moulding. The designs are then discussed with the marketing department, which conducts market surveys for approvals and later to be used for overseas client presentations. With feedback from customers after seasonal meetings, necessary changes are made and the new collections are formed.

In terms of the value-add designs, the team develops motives & designs by various application methods such as stamping and carving onto pots and other ceramic pieces. For newer shapes, APPI is constantly trying to create shapes that not only have marketing appeals but are also functional. The shapes created are efficient for storage, provide shipment space or easy for transportation and distribution. The team focuses on developing new products that can be either packed in a compressed manner and/or provide retail or storage advantages to the customers.

As for garden accessories, there are two types, which were designed and developed. The Company has animal sculptures and figurines and other ornamental items.

Designing needs are based on customers' request and information gathered in-house for the next season's themes & concepts. The Company refers to magazines and trends which are based on cross industries observations. The industry's benchmarked include interior decoration, home furnishing or improvement and retail. The amount of shape variations are based on the number of customer requests for their

**4. INFORMATION ON THE APPI GROUP (Cont'd)**

marketing needs to fulfil their per season quotas and also feedback on new ideas from customers.

(iv) Achievements of R&D in New Products

The technical development team has successfully developed the four-sided open hydraulic machine which forms four surfaces of a pot with the R&D. The Group can now mass-produce designs that were previously not feasible in the industry. The results are high value-added products that allow APPI an increase of approximately 25% in their profit margin.

APPI's "single-stacked glazed pots" concept is a unique selling point that brought the company to its current international recognition within the industry. The shapes created based on this concept are patented within and outside Malaysia by APPI.

**4.5.9 Interruption/Disruption in Business**

The Group did not experience any disruption in business, which has significant effect on its operations for the past twelve months prior to the date of this Prospectus.

The Table below provides the production shifts for the APPI Group.

Company	Hours per shift	Number of Shifts	Number of Production Lines
AE	8	Firing Cycle = 3 shifts Other Processes = 1 shift	5
OW	8	Firing Cycle = 2 shifts Other Processes = 1 shift	3
APM	8	1 shift	3

Source : APPI

The workers work about 12 hours per shift per day. They work six days a week and 4 weeks per month.

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**4. INFORMATION ON THE APPI GROUP (Cont'd)****4.5.10 Patents, Trademarks, Licences and Franchises**

In order to operate and sustain in the decorative ceramics business, a number of licenses or permits need to be obtained from the relevant authorities. Trademarks and patents are important intellectual properties to prevent competition from competitors through industrial espionage. Below are a list of licenses, permits, trademarks and patents that have been obtained by APPI.

Authority	Licence / Permit / Trademark / Patent	Registration / Application Date	Expiry Date
Registrar of Trade Marks Malaysia	Trademark for "HANG SEN" – Class 21, Malaysia (#97-04169)	2 April 1997	2 April 2004
	Trademark for "cera JARDINE" – Class 21, Malaysia (#97-05112)	21 April 1997	21 April 2004
	Trademark for "cera INDAH" – Class 21, Malaysia (#97-05110)	21 April 1997	21 April 2004
	Trademark for "WINTERFEST" – Class 21, Malaysia (#97-05109)	21 April 1997	21 April 2004
	Trademark / Logo of "HANGSEN" – Class 21, Malaysia (#97-05108)	21 April 1997	21 April 2004
	Trademark / Logo of "THO" – Class 21, Malaysia (#97-04171)	02 April 1997	Pending approval, statutory declaration filed on 17 November 2000
	Trademark / Logo of "asian pottery" – Class 21, Malaysia (#97-04170)	02 April 1997	Pending approval, statutory declaration filed – 17 November 2000
	Trademark / Logo of "Home & Garden" – Class 21, Malaysia (#98-01258)	09 January 1998	Pending approval, statutory declaration filed on 2 November 2001
Trademarks Registry of Britain and Northern Ireland, United Kingdom	Trademark of "HANG SEN" – Class 21, United Kingdom (#2197055)	11 May 1999	11 May 2009
United States Patent and Trademark Office, USA	Trademark of "HANG SEN" – Class 21, United States (#75/766,947)	23 January 2001	23 January 2011
German Patent and Trade Marks Office, Germany	Trademark of "HANG SEN" – Class 19 (terra cotta) and Class 21, Germany, (#399 35248.1/19)	18 June 1999	18 June 2009
The Patent Office, United Kingdom	Certificate of Registration of Design – Ceramic Planter / Flower Pot – United Kingdom (#2058669)	19 August 1996	19 August 2006

**4. INFORMATION ON THE APPI GROUP (Cont'd)**

Authority	Licence / Permit / Trademark / Patent	Registration / Application Date	Expiry Date
Design Registry Department, Malaysia	Multiple Malaysian Industrial Designs - #99- 00036 (4 designs)	29 September 1999	Pending, submission lodged on 24 February 2001
	Multiple Malaysian Industrial Designs - #00- 00081 (7 designs)	03 March 2000	3 March 2005
Design Registry Department, Malaysia	Single Malaysia Industrial Designs - #02-00223 (1 design)	23 April 2002	Pending
	Multiple Malaysian Industrial Design - #02-00224 (2 designs)	23 April 2002	Pending
	Multiple Malaysian Industrial Design - #02-00225 (3 designs)	23 April 2002	Pending

**Note:**

1. Trademarks registered under Class 21 include – pottery, flower pots, vases (not of precious metal), flowerpot covers (not of paper), works of art, made of porcelain and earthenware.
2. Trademarks registered under Class 19 are meant for terra cotta related products.

**4.5.11 Employees**

As at 31 May 2003, the Group employs a total of 393 employees. The management of the Group enjoys a good working relationship with its employees. The employees do not belong to any union.

The Group's employees are generally segregated into four (4) categories as follows: -

Category of Employee	Total number
Managerial and Professional	18
Technical and supervisory	73
Clerical and related occupations (e.g. clerks, typist, stenographers, personal secretaries, etc.) plus sales	28
General workers (e.g. telephone operators, drivers, office boys, watchmen, gardener, etc.) and factory workers (skilled and unskilled)	274
<b>TOTAL</b>	<b>393</b>

The average staff turnover ratios for the Group is 4%, which is below the industry average due to APPI providing better benefits and working environment<sup>3</sup>. (Source: ACNielsen report dated 25 June 2002, with updated version dated 12 December 2002) As evidence of a strong and stable management team, there is a minimal turnover at the middle management level and above. As for the number of years of service per employee, please refer to the table.

<sup>3</sup> Unable to provide exact industry average( staff turnover) for non-structural ceramics decorative ware and pottery sub-sector, but general IIR practitioners use 10% as the overall industry standards. According to APP's internal HR, their benefits are better than other manufacturers in the same sub-sector.



**4. INFORMATION ON THE APPI GROUP (Cont'd)**

**Number of Years of Service By Employee**

Number of Years	Total Number of Employees	Percentage (%)
Over 10 Years	39	9.92
5 to 9 Years	72	18.32
3 to 4 Years	73	18.57
1 to 2 Years	113	28.75
Less than a year	96	24.44
Total	393	100.00

Source: APPI

The Group Managing Director, Mr. Ow Hang Sen, manages the business of APPI Group with strong support from his senior management team. Most of the members of the management team have been with APPI since the 1980's and have a thorough understanding of the business and invaluable experience in the industry. The team has weathered the last few global recessions together and has managed to sustain profitability and growth throughout. From the table above, employees that fall into the 'Over 10 years of service' category comprise mainly of the senior management team, while those that have been with the Group for less than 2 years comprise mainly of the lower ranking employees.

APPI is committed to invest in its people through both internal and external training for skill development. It has grown from a 10-person operation in 1979 to its current total staff strength of 393 personnel. It also has access to other skilled or semi-skilled workers via sub-contractors during the peak production seasons. Approximately 23% of the Group's employees are at the supervisory level and above, which signifies that APPI recognises the need to move its operations from being labour intensive to a mechanised operation.

APPI believes in promoting teamwork and togetherness where inter-department collaboration and cooperation is a common occurrence. The teamwork culture encouraged by senior management ensures the success of the Group as a whole and is not based on individual interests.

**4.6 Industry Overview**

**4.6.1 Overall Malaysian Economy**

For Malaysia, the year 2001 held promises of great economic recovery and strong growth in all the major economic sectors, similar to 2000. However, that was not the case. The global economic slowdown has finally made its mark in the Malaysian economy, with the country reporting another month of declining exports. The impact on Malaysia of the downturn in the electronics cycle and the slowdown in the global economy was transmitted through the export channel. Exports, which had remained positive since 1987, fell by 7.5% in 2001.<sup>4</sup> Specifically, exports of electrical and electronic products, which make up 59.9% of total exports for 2001, fell by 5.7% from the same period last year. This contraction was experienced in almost all sectors, manufacturing as well as primary commodities. However, economic conditions improved further in the first quarter of 2002. The Malaysian economy expanded by 1.1% in the

<sup>4</sup> Malaysian Economic Report 2002/2003.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

first quarter (fourth quarter 2001: -0.5%).<sup>5</sup> This recovery was mainly driven by strong consumption spending and supported by the external demand following the general overall recovery in the global economy. Exports increased by 4% in March 2002, the first positive growth in a year. Recovery in the electronics industry has moderated the decline in the exports industry for the first quarter. Similarly, imports also recorded, for the first time since March 2001, a positive increase of 0.5%, mainly to meet the higher demand of intermediate inputs for manufactured goods.

In 2001, as an added shield to the September 11, 2001 terrorist attacks, the Government announced an additional RM4.3 billion (USD1.1 billion) stimulus package to boost the economy. This stimulus package serves as a measure used to prop up the economy, following the RM3 billion supplementary budget in March 2001 and the RM28 billion spending package from the 2001 budget.

Further to the above fiscal measures, Bank Negara Malaysia also announced the reduction of its 3-month "intervention" rate by 50 basis points<sup>6</sup>, and also allowed banks to reduce savings deposit rates by up to 0.25% points. Malaysia's foreign exchange reserves also remained strong, rising by RM538 million, ending 2001 with total reserves of RM117.2 billion.<sup>7</sup>

The Malaysian economy is poised to register stronger growth in 2002, following better export performance and continued pick-up in domestic demand. This anticipated growth is on track, with the GDP growing by 2.5% for the 1<sup>st</sup> half of 2002. This is expected to strengthen further in the second half. These positive signs coupled with the government's expansionary economic policies are expected to push the country's growth up to 4%-5% in 2002.<sup>8</sup>

With the mild recovery intact in 2002 and expected to gain momentum in 2003, the world economy is projected to register output growth of 3.7% with trade expanding at 6.6%.<sup>9</sup> The Malaysian economy, with stronger macroeconomic fundamentals already in place and complemented by the more resilient corporate and financial sectors, is poised to benefit from the improving global economic environment projected for 2003.

Economic growth is anticipated to be largely domestic-led and private sector driven, particularly in new niche areas of services including tourism, transport, education, health and also agriculture. This is aimed at reducing the country's over-dependence on manufacturing as well as the external sector.

On a longer term, the 8MP expect that from 2001 – 2005, growth will be led by the manufacturing and services sectors. Value added manufacturing would take the lead growing at an average of 8.9% from 2001 onwards. Growth in the agriculture, forestry and fishing sectors is anticipated to receive an additional boost growing at 1.8% in 2001 and 1.1% in 2002.<sup>10</sup> Malaysia is projecting to grow at an average of 7.5% per annum during the 8MP period (2001 – 2005) with low inflation and price stability. The private sector is envisaged to lead this growth with the public sector continuing its role in stimulating the economy. The economy will become less reliant on labour, in the country's efforts to develop a knowledge-based economy. Private

<sup>5</sup> BNM Report "Economic and Financial Developments in the Malaysian Economy in the First Quarter of 2002", issued 22 May 2002.

<sup>6</sup> Basis points refer to hundredths of a percentage point. This intervention rate is used by banks to calculate their base-lending rate.

<sup>7</sup> The Edge, January 14, 2002.

<sup>8</sup> Economic Report 2002/2003.

<sup>9</sup> Economic Report 2002/2003.

<sup>10</sup> Economic Report 2002/2003.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

investments are forecasted to grow at 19% annually and public investments at 1.1% (8MP). Supported by strong domestic demand and strong recovery in private investments, private consumption is expected to grow at 7.4% while public consumption is expected to grow at 7.7% per annum (8MP). It is expected that the per capita income will increase from RM13,411 in 2000<sup>11</sup> to RM17,779 in 2005, increasing private consumption per capita from RM6,198 in 2000 to RM9,073 in 2005.

The Malaysian Government's basis for growth in the 8MP period takes into account the challenges arising from a more liberal global economy and the impact of technological advancements. As such, greater efforts will be made to ensure the sustainability and resilience of the economy in the long term to achieve the country's Vision 2020 target.

##### 4.6.2 The Global Economy

Since late 2001, a global recovery has been under way, with trade and industrial production picking up across the globe. However, after a strong first quarter, concerns about the pace and sustainability of the recovery has risen significantly<sup>12</sup>. Financial markets have weakened markedly, with equity markets falling rapidly since end-March accompanied by a depreciation of the US dollar. Financing conditions for emerging markets have deteriorated, particularly in South America and Turkey; and incoming indicators in the US and the Euro area have fallen short of expectations. The latest World Output projections from IMF are as follows:

(%)	1997	1998	1999	2000	2001	2002 <sup>13</sup>	2003 <sup>14</sup>
World	4.2	2.8	3.6	4.7	2.2	2.8	3.7

Source: International Monetary Fund

In 1999, following the global slowdown in the wake of the Asian crisis, and the bouts of financial turbulence and contagion associated with both the Russian and the Brazilian crisis, the world economy *appeared* to be on the mend. There was evidence of a rebound in the global economy, with global output growth reaching 3.6% in 1999 (compared with a projection of only 2.2%), 4.7% in 2000 and moderate world growth *projected* at 3.5% in 2001. However, since May of 2001, growth in world output had been revised downwards, due to the softening and slowing down of the larger economic powers of the world, namely the G7<sup>15</sup> countries. Factors attributed to the slowdown pre-September 11, 2001 were – delayed economic recovery in US, weakening domestic demand in Europe and Japan moving into their 4<sup>th</sup> recession<sup>16</sup>, decline in information technology spending impacting most of Asia; and deteriorating financing conditions, particularly in Latin America.

Post-September 11, 2001, the outlook appeared somber, with the IMF predicting<sup>17</sup> short-term to medium-term impact of the terrorist attacks on global economic growth, with the possibility of a longer than expected deterioration of consumer, corporate and financial confidence. It was feared that major trading partners of US would feel most of the impact.

<sup>11</sup> For 2001, per capita income was recorded at RM13,333 and 2002 projections are RM13,692, which is at 4.7% increase from 2001.

<sup>12</sup> International Monetary Fund: World Economic Outlook, September 2002.

<sup>13</sup> International Monetary Fund: World Economic Outlook, September 2002.

<sup>14</sup> International Monetary Fund: World Economic Outlook, September 2002.

<sup>15</sup> United States, Japan, Germany, United Kingdom, Italy, France and Canada.

<sup>16</sup> Structural reforms introduced by the Japanese Government will only have impact in the medium-term.

<sup>17</sup> International Monetary Fund, Global Outlook After September 11, 2001 (18 December 2001).

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**4. INFORMATION ON THE APPI GROUP (Cont'd)**


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However, despite the fears expressed, the events of September 11, whilst having a short-run impact on activity, did not prevent a recovery in the first half of 2002. Leading indicators improved, consumer and business confidence strengthened and industrial production – including the information technology (“IT”) sector stabilised.<sup>18</sup> There were increasing signs that the global slowdown had bottomed out. While global recovery is expected to continue, it will be weaker than earlier expected. Global growth is projected at 2.8 % in 2002, rising to 3.7 % in 2003.<sup>19</sup>

This global recovery is led by the United States and underpinned by improvements in global industrial production and trade.<sup>20</sup> This is true even allowing for the recent substantial downward revision to GDP growth in 2001 in the U.S. The global slowdown in 2000-01 has proved to be more moderate than most previous downturns. This owed much to an aggressive policy response, particularly following the events of September 11, in turn made possible by the improvement in economic fundamentals in the 1990s.

Other positive support activities<sup>21</sup> that have and will continue to aid the global economy towards a speedier recovery include:

- Continued accommodative policies such as the easing of the monetary policies of major countries;
- Decline of oil prices in 2001 - lower oil prices will help support global economic activity, albeit some negative impact on oil producing countries;
- The resilience of the global financial infrastructure to a variety of substantial shocks;
- Strengthening economic fundamentals in many countries, especially in Asia; and
- The drawing down of excess inventory, which is increasingly occurring in the United States and also underway in Europe.

There has also been a degree of good luck in that the impact of the terrorist attacks on confidence proved surprisingly short lived.

During the first quarter of 2002, activity was surprisingly strong, with the GDP growth in a number of regions – particularly North America and emerging markets in Asia – exceeding expectations.<sup>22</sup> Since that time, the pace of recovery has slowed, except in emerging markets in Asia and incoming indicators have generally been weaker than expected. Forward-looking indicators – while still stronger than 2001 – have also fallen back markedly. Domestic demand growth so far has been relatively weak outside North America and the United Kingdom, the cyclically most advanced of the major industrial countries, making the upturn more heavily dependent on external demand. This also reflects the impact of recent financial market developments. Moreover, there is yet limited evidence of a pickup in global investment, which will be critical to maintain the momentum of the projected upturn in the second half of the year.

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<sup>18</sup> International Monetary Fund: World Economic Outlook, April 2002.

<sup>19</sup> International Monetary Fund: World Economic Outlook, September 2002.

<sup>20</sup> International Monetary Fund: World Economic Outlook, September 2002.

<sup>21</sup> International Monetary Fund: Global Outlook after September 11, 2001 (18 December 2001). International Monetary Fund: World Economic Outlook, April and September 2002.

<sup>22</sup> International Monetary Fund: World Economic Outlook, September 2002.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)

##### 4.6.3 Overview of the Ceramic Industry

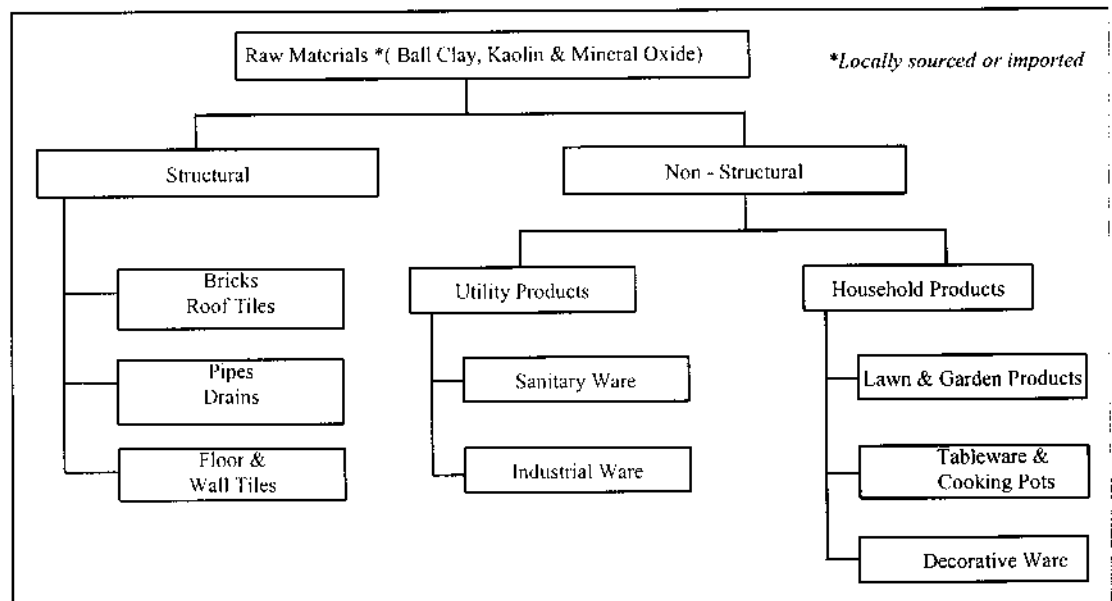
The ceramics manufacturing industry may sometimes be regarded as a sub-sector of the construction industry since 60% of the output is produced for structural clay products used in the construction sector. However, it should be more accurately described, as the construction industry is highly dependent on the ceramics manufacturing industry for raw materials as input into their construction projects. The actual size of the entire ceramics manufacturing industry cannot be ascertained accurately since many of the local ceramic manufacturers are small or medium-sized that are family-run and hence operational information are tightly held. In 1997, the overall output value of the Malaysian ceramics manufacturing industry was estimated at RM1.8 billion and using the average rate of output growth<sup>23</sup> as reported in the 8MP, the estimated 2002 output is RM2.78 billion. In the ASEAN region, Malaysia is ranked the 3<sup>rd</sup> largest overall ceramic<sup>24</sup> manufacture after Thailand and Indonesia.

The ceramics manufacturing industry is a very diverse industry covering a wide range of products. These products have been grouped into this industry as they share a one commonality, which is the use of clay minerals as their basic raw material. These clay minerals when fired at high temperatures are transformed into monolithic solids that can be used for many purposes.

(Source: ACNielsen)

##### 4.6.4 Industry Structure

This industry has a very straightforward structure and can be divided into two major categories as reflected in the table below:-



<sup>23</sup> 9.1% (1995 – 2000) & 8.9% (2001 – 2005), Eight Malaysia Plan.

<sup>24</sup> Structural AND Non-Structural.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

*Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)*

##### 4.6.5 Non-Structural Household Products

APPI Group is principally a manufacturer of non-structural household products covering flower pots, tableware, cooking pots and decorative ware. APPI Group is considered one of the leading manufacturer and exporter of flower pots and decorative ware.

The tableware manufacturers produce tableware products for both local and overseas consumption. Many manufacturers in this category began by producing low priced tableware, however, recent trends point towards more up-market production. In this area, an increasing number of overseas manufacturers are beginning to set up plants in Malaysia to take advantage of the relatively low labour cost, availability of raw materials and relatively stable political and economical environment.

##### 4.6.6 Industry Growth

The entire ceramic manufacturing industry is a combination of very large players and small to medium-sized players. Participants in this industry range from large public listed companies to smaller sole proprietorships that usually act as sub-contractors to the larger players. Prior to 1987, the industry was very much an industry comprised of smaller manufacturers. However, based on available industry information for the last 5 years, the annual turnover growth rate for the entire ceramics industry is 16.58%<sup>25</sup>.

On the structural product aspect, many manufacturers started out as joint-venture companies or foreign owned companies, producing to meet the demands of the local construction industry. After being impacted by two major recessions in 1988 and 1997, producers have now "shaped-up" and begun to re-think their strategies. This gave rise to a newer breed of manufacturers that were focused on production expansion and the export market.

The overall non-structural clay products sector is a much less documented sector. It is however noted that this sector produces mainly for the export market, leaving a minuscule amount for local consumption.

The local non-structural household products sector is a very fragmented sector. The local sector is still very much in the infancy stage where players are small and disperse. Many manufacturers of decorative ceramic ware and pottery are still classified in the cottage industry category and some of these are APPI's sub-contractors. One of the possible reasons for this slow development of the industry is the lack of local consumers that indulge in gardening as a serious hobby and also be due to the existence of cheaper substitutes like plastics other than quality ceramic potteries.

In addition, based on APPI's own internal market surveys, the local market is currently still not advanced enough, whereas most developing countries have already begun to use high-end non structural ceramic products extensively in all aspects of the household. However, APPI anticipates that the ASEAN region will begin to step up their demand for these products in the next 3 to 5 years, with improvements in the quality of life and higher disposable income.

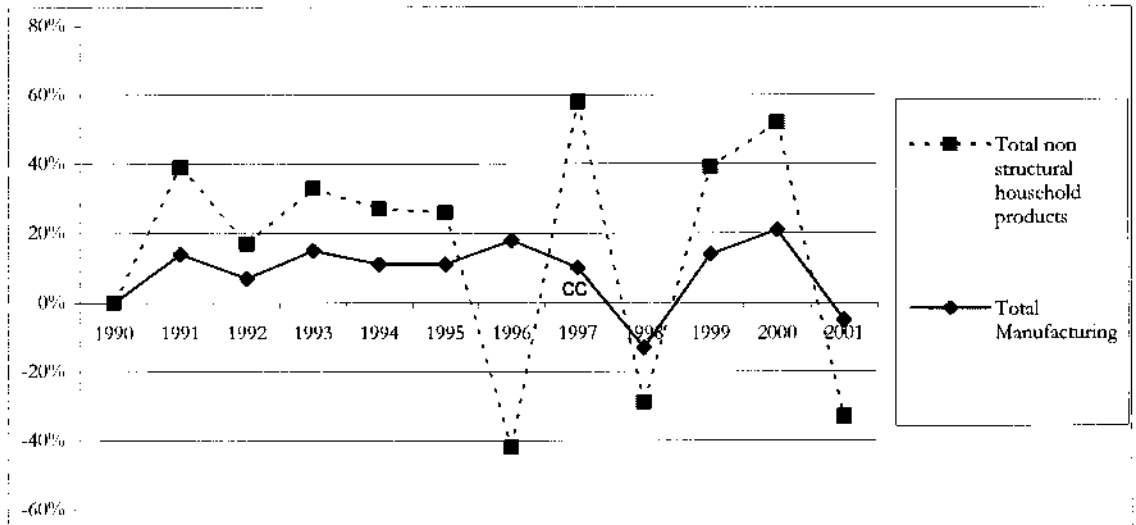
<sup>25</sup> Dynaquest Sdn Bhd 1998. Many of the companies used have larger portions of their earnings from the structural sector of the industry.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

The industry faced a slight impact on growth post-September 11, 2001. In addition, conscious efforts by the local and overseas Governments to boost the current economic situations will also help mitigate any significant impacts to this sector.

Social unrest and economic instability in neighbouring ASEAN countries could also improve the export numbers for Malaysia, when investors and customers swing their orders into Malaysia.

##### *Estimated Growth - Non-Structural Household Products*



At present, there are not many trade restrictions and tariffs trading within AFTA countries for household ceramic products. Thus, with the introduction of AFTA, the growth of the non-structural household products sector may not be generally impacted, reason being that this sector is export-based sector. However, potential still remains, as there are many areas of expansion that are untapped. APPI has put in place business strategies that not only protect their earnings potential, but also assist to alleviate the entire non-structural household products sub-sector of the ceramics industry.

*Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)*

#### 4.6.7 Government Legislation, Policies and Incentives

##### MATRADE

APPI benefits from its association with MATRADE, where initial overseas customers were introduced to APPI via this channel as well as tax exemptions.

The tax exemptions that benefit the manufacturing sector are as follows:-

1. Exemption of statutory income equivalent to 10% of the value of increased exports, if the goods exported attain at least a 30% value-added increase; and
2. Exemption of statutory income equivalent to 15% of the value of increased exports, if the goods exported attain at least a 50% value-

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**4. INFORMATION ON THE APPI GROUP (Cont'd)**


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added increase.

#### MIDA

MIDA is another government arm that provides tax incentives for export and R&D expenses for manufacturers producing for the export market. Incentives that are applicable to APPI's business are set out below :-

1. Double Deduction for Promotion of Exports - certain expenses incurred by resident companies for the purpose of seeking opportunities for exports of manufactured products and other products are eligible for double deduction;
2. Double Deduction on Export Credit Insurance Premiums - premium payments on export credit insurance are eligible for double deduction;
3. Double Deduction for Promotion of Malaysian Brand Names - As a tool to promote "Made in Malaysia" brand names, expenditure incurred in advertising locally on billboards at strategic locations, (e.g. international airports and highways) is eligible for double deduction when it satisfies criteria like - a 70% Malaysian owned company, a registered Malaysian brand owned by the company and the products are of export quality;
4. Industrial Building Allowance - an allowance of 10% of qualifying expenditure is granted in respect of buildings used as warehouses for storing goods for export and re-exports; and
5. Incentives for R&D - under the guidance of the Promotion of Investments Act 1986, companies are eligible to apply for Investment Tax Allowance ("ITA") of 50% of the qualifying capital expenditure incurred within 10 years and the ITA can be utilised to offset against 70% of the statutory income in the year of assessment. However, todate APPI's claims for R&D investment incentives, have yet to be approved by the Inland Revenue Board.

#### SIRIM Berhad<sup>26</sup>

SIRIM Berhad, formerly known as the Standards and Industrial Research Institute of Malaysia, is a government-owned company under the Minister of Finance Incorporated. The company came into operation on 1 September 1996 and is the national organisation for standardisation, quality and international acceptance of Malaysian products and services. The organisation mission is to enhance customers' competitiveness through technology and quality, and fulfill the needs of the shareholders.

Within SIRIM, The Ceramics Technology Center is actively involved in industrial research and development in the clay-based and specialized high technology ceramics. The center's mission is to help local ceramics industry enhance its global competitiveness through research and development, technology transfer and technical consultancy services. The capabilities in ceramics research and development encompass the following:

- Materials selection, evaluation and processing techniques
- Ceramic product fabrication techniques, Product design, ceramic decoration, characterization and performance evaluation
- Technology transfer of R&D findings to entrepreneurs manufacturing support services (technical backup and consultancy services)
- Technical training program to help create a more specialized ceramics

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<sup>26</sup> Source : SIRIM Berhad website.



#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

- workforce, particularly for the small and medium-scale enterprises
- Market survey and feasibility study
- Ceramic membrane filter for food, beverages, petrochemical and waste water treatment
- Plasma ceramic coating for wear, corrosion resistance and thermal barrier applications
- Assist in the development of Malaysian Standards for the ceramics industry and in the formulation of International Standards under the Technical Committee 206 on Fine Ceramics (ISO/TC 206)

Currently, APPI has yet to explore the possibility of working with SIRIM on this area of R&D.

*Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)*

#### 4.6.8 Associations and Trade Organisations

##### Federation of Malaysian Manufacturers ("FMM")

FMM was established in 1968, and since its formation, FMM has consistently led Malaysian manufacturers in spearheading the nation's growth and modernisation. Today, as the largest private sector economic organisation in Malaysia representing over 2,000 manufacturing and industrial service companies of varying sizes, the FMM is the officially recognised and acknowledged voice of the manufacturing industry.

#### 4.6.9 Industry Dynamics

The pottery industry encompasses a wide range of activities from extracting clay, secondary processing to tertiary processing. The clay can be processed into variety range of products. It is extensively used in the paper, paint, adhesive, textile, pharmaceutical, fibreglass, ceramics, agriculture, rubber and plastics industries. Its main products are pots, ornaments, landscaping objects and decorative pieces.

The ceramic-based industry is a highly export oriented industry. In value terms, about 95% of the production is exported. The high export orientation of the ceramic-based industry has contributed to the pottery industry's prominence as a foreign exchange earner.

#### 4.6.10 Future Growth and Prospects of the Ceramic Industry

Bigger industry players such as APPI, are expected to be able to withstand peaks and lows of the non-structural ceramic decorative ware and pottery industry, emerging from the recessions as profitable as ever. This is due to their large export customer base and the fact that the non-structural household products industry is not greatly impacted by the global economic slowdown. Many of the casualties that have been recorded were smaller companies with capital restrictions. APPI sub-contracts some of its orders to these smaller manufacturers during the peak seasons. APPI could be the only ceramic manufacturer working with the government to improve the level of the local handicraft industry through transfer of knowledge to sub-contractors. APPI believes that their strategy is more synergistic and will prove to be better for the longer-term prospects of the industry.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

The outlook seems optimistic for larger players due to the government's active efforts in pump priming the local economy, using manufacturing as an enabler. The APPI group is well poised for expansion and growth as they have an excellent track record in new product development and delivery, putting them ahead of the competition. APPI has also adopted good management strategies and made shrewd business decisions by focusing on areas in which the 8MP and 2003 budget places emphasis. In addition, the Group's quest for efficiency and productivity will help minimise operational costs, keeping the company lean and poised to take advantage of the resurgent local construction and property development opportunities in the new millennium as well as the rebound of overseas economies in 2003.

*Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)*

##### 4.6.11 The Pottery Industry's Past Growth and Future Prospects

Prospects in other world markets are positive in view of opportunities due to market liberalisation. Players who are venturing out of the country will find that there is still much room for growth in the areas of decorative ceramic manufacturing.

APPI has recognised the opportunities within and outside the country. Locally, they have an established presence in the marketplace as one of the leading manufacturers-cum-exporters of decorative lawn and pottery ceramic products. Their expansion to offer clients forward and backward integration has earned them their unique market position. Successful management strategies have also allowed them to make inroads into many countries around the world.

##### 4.6.12 The Retail Industry

At the dawn of the new millennium, the retail industry has become more vibrant than before. It has begun to move into a new phase of maturity, with economic, technological and demographic developments changing the way business is done in the industry.

For most of the developed countries however, retail continues to experience single digit growth, as a share of the overall economic output, fast being replaced by the purchase of services. The exception to the rule being the L&G sub-sector which has been experiencing strong growth. For these countries, retailers are mainly concerned with expanding into other countries to increase market share and earnings. On the positive side, rising incomes and the lowering of trading barriers have facilitated this expansion process, giving consumers today a wide variety of choices while shopping.

The "mass" merchandise and marketing concepts of yester-year have now been replaced by personalised marketing, thanks to technology and Customer Relationship Management. The implementation of IT systems have become top priority on retailer CEO's "to-do" lists around the world.

Demographic changes also impact the retailing industry, with world population expected to reach 7.1 billion in 2014. While growth patterns in various parts of the world differ, by 2015, it is estimated that there will be more consumers of 65 years and above in developed countries with the exact opposite occurring in developing countries. This larger population with higher discretionary

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

income levels will spur consumer spending in the areas of healthcare and leisure.

Generally, retailers are moving towards enhancing their international operations to achieve greater efficiencies of scale. The average European retailer now operates in 6.9 countries, while the US retailer in 2.8 countries and the average Asian/Australian retailer in 3.6 countries. Store formats have also undergone some revamping, with hypermarkets emerging as one of the fastest growing store types. Similar trends are expected on the homefront.

*Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)*

##### 4.6.13 Overview of Gardening as a "Lifestyle"

Gardening has always been regarded as one of the common hobbies and pastimes. It is particularly famous in Europe for the past decades and is fast catching up in United States, East Asia and eventually South East Asia. Generally, when a country becomes more developed and people leading a more hectic living, various ways are sought by mankind to relief stress. The popularity of gardening indulged as a hobby is evidenced by the growth of lawn and garden centres, home centres and other speciality stores selling gardening products which have mushroomed throughout the European countries, United States and Japan. Malaysia, a country moving towards to be a developed country, is expected to adopt this relaxing lifestyle. With the recent Government's effort in promoting the concept of "garden city" in major cities, gardening activities is expected to play an important role in our day-to-day life.

Most of the Western countries consider gardening as part of their modern lifestyle and regard pottery products as decorative items cum essential items in keeping plants. This concept will continue to establish gardening as a fashion trend where creativity and innovation play an important role in gardening industry in the coming millennium. Manufacturers and retailers of potteries in these countries promote their products in a "packaged form" where other related pottery products are sold together with main pottery products at a premium price. Hence, it is a matter of "status" in the Western societies to display a well-maintained garden and this is equally important as having a new renovated home.

On the other hand, developing countries in Middle East such as Turkey, Israel, Jordan, Egypt and Arab Saudi acknowledge gardening as a manner of "home improvement" rather than "lifestyle". Most of the products sold in the garden or home centres are indoor gardening and decorative items. The people in this country view gardening as a popular leisure activity simply due to other restricted leisure activities. Japan, on the other hand is a titanic market where gardening is very much a culture activity. Their purchasing power is as equally strong as compared to the European market. However, Japanese market is a protective market where foreign suppliers are required to seal business with Japanese organisation, associations and unions.

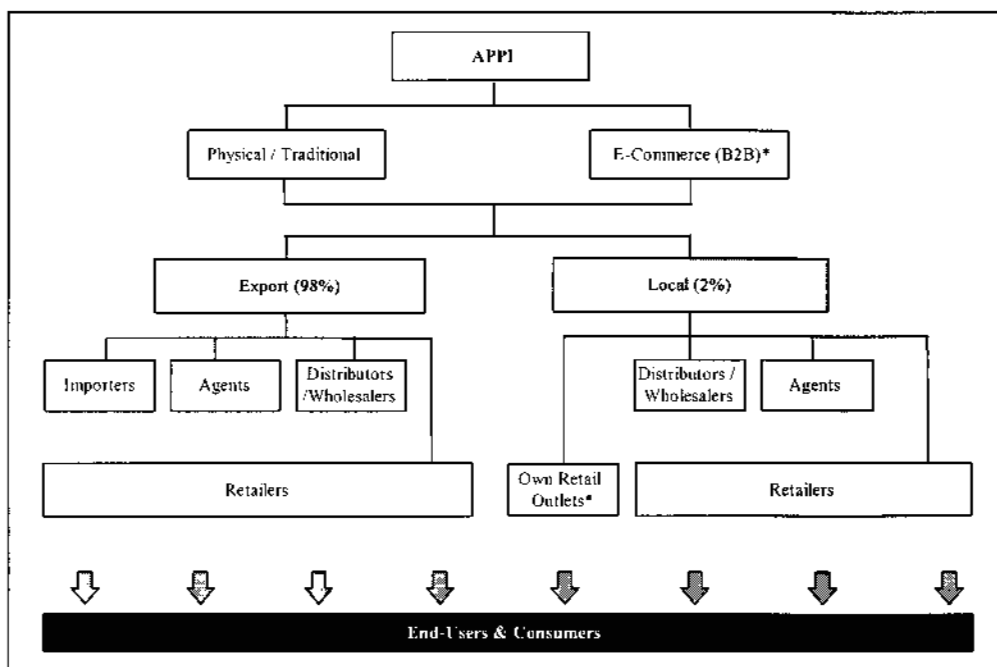
##### 4.6.14 Prospect and Future Plans of the APPI Group

APPI plans to venture into E-commerce, by creating an additional marketing channel for its products. APPI's marketing teams are in the process of conducting research on the current mail orders and e-commerce organisations abroad to look into the viability of such a distribution channel. If such channel is viable, APPI will place emphasis on a B2B portal and place lower priority on

**4. INFORMATION ON THE APPI GROUP (Cont'd)**

B2C.

As for the local Malaysian orders, the products are delivered directly to the customer via road. The chart below reflects APPI's distribution network for its ceramic decorative products.



\* *planned for the US market, currently in the preliminary setting-up phase*

\*\* *Future Expansion*

\*\*\* *The above is based on 5-year average turnover of the Group*

Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)

The Directors of the APPI Group believes that the long-term prospect for the industry and APPI Group are favourable despite the slowdown in the largest economy of the world. In fact, based on previous record on the sales growth of the Group, the economy in Europe and US were facing a recession in the early eighties and the late eighties, respectively. The demand for non-structural household products appears, rather constant given any economic climate. Due to the nature of the industry, the consumer demand usually increases during boom times where there is excess disposable income as well as during economic downturns where consumers cut-back on "big-ticket" items spending, reduce luxury goods spending and being on the look out for cheaper leisure activities, such as home improvement or decorating and gardening activities.

In addition, the Directors are assured that the lawn and garden business will be increasingly popular amongst the households. The Directors believes that as the economy of a country becomes more developed and the people's standard of living improve dramatically, gardening can become a hobby. Gardening can be enjoyed by all walks of life. Thus gardening may be a common pastime activity.

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**4. INFORMATION ON THE APPI GROUP (Cont'd)**

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This trend is happening in Europe for the past decade and is fast catching up in the US, East Asia and the Directors believe that there is an opportunity to capture new markets in South East Asia. The standard of living and pace of living have increased over the years as evidenced by the gradual growth in the numbers of lawn and garden centers, DIY, home centers outlets and other specialty stores selling gardening products throughout all the countries in Europe, US and Japan.

The awareness of greenery projects and the importance of gardening adopted by most households have boosted the demand for more L&G products. Therefore, the Directors foresee that the L&G industry in most countries are growing gradually in anticipation of increase demand for gardening as a healthy lifestyle in the new millennium. It is evident that the L&G business continues to grow rapidly as APPI's sales growth continues to accelerate.

For the last 20 years, APPI has been an innovative leader in the manufacturing and distribution of quality ceramic pots for outdoor as well as indoor. Apartment or condominium dwelling have been increasingly popular. The innovative leadership of APPI Group in developing high quality products responds efficiently in providing products to the retailers. The designs and sizes of its products cater well for limited space such as balcony, patio, windowsills or doorstep of such dwellings.

Garden ornament is another product that is well responded by its customers. Growth rates are on the increasing trend supported mostly by the American buyers. The trend of gardening has changed tremendously in most western countries. Most households have considered that gardening is part of the modern lifestyle. As a result some households are willing to invest in not only the conventional gardening tools but into decorative and fashionable garden products. Some of the obvious changes in the gardening products are the flower pots, ornaments and related pottery items.

The Group's future prospects is promising based on the following factors:

a) Government incentives

The pottery industry is heavily promoted by Malaysian Industrial Development Authority ("MIDA") and the government of state of Perak is supportive of resource-based industry where raw clay are converted to high value-added products and which can earn foreign exchange for the country.

APC has obtained the pioneer status for most of their products from MIDA on 6 October 1994. The tax exemption arising from the pioneer status obtained was for a period of five (5) years starting from 1 June 1993 to 31 May 1998. The Group's manufacturing companies are also given the privileges in reinvestment allowances for new investments in production facilities and substantial export incentives for promotion of products to the world market. This will keep the operational cost trim and enhance the profitability of the Group.

b) Export incentives

The liberalisation of the international trading will provide both opportunities and challenges for the country's exports. In order to sustain the growth of export-oriented industries, efforts will be made to build upon existing comparative advantages, diversifying exports and penetrate new markets.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

A focused export-targeting approach will be taken to increase demand of such goods. In this regard, MATRADE will work together with the private sector to promote Malaysian products particularly, resource-based products in foreign markets and organise exhibition of such products. Efforts will be undertaken by MATRADE to upgrade the marketing capabilities of the private sector through training and consultation on various aspects such as product design, packaging and labeling.

c) Investment incentives

Malaysia accords 'double deduction scheme' to companies that has incurred expenses which are important to the development of manufacturing sectors as well as to make them more cost competitive in the overseas market. The outgoing expenses incurred by APPI Group are publicity and advertising expenses outside Malaysia, samples and the related cost to prospective customers outside Malaysia, expenses in carrying out export market research and obtaining export marketing information, expenses in travelling fares to a country outside Malaysia in relation to the negotiation or concluding contracts for the sale of the products and expenses related to the provision of exhibits for trade fairs or industrial exhibitions. As such, APPI Group has an advantage to save cost substantially.

d) Tax exemption

The export of all clay-based products are exempted from the sales tax under the Sales Tax Act.

The APPI Group's focus is to produce and market high quality value added products and to continue improve its efficiency and production capacity. The Group plans to further extend the range of final products. In its efforts to achieve product diversification and to at least maintain its current market share, the Group will also increase production in its factories and optimise utilisation of its kiln dry chambers.

#### 4.7 Major Customers

Approximately 45% of APPI's products are for chainstores and DIY stores, while 30% is for importers or distributors and the balance of 25% for retailers.

APPI's customer list includes 7 of the 200 Global Retailers<sup>27</sup>, and they are -

- Canadian Tire - Ranked 189
- Home Depot - Ranked 4
- IKEA - Ranked 69
- Lowe's - Ranked 28
- Migros - Ranked 66
- Sears (Sears Hardware is part of the Sears Group of companies) - Ranked 9
- Lerroy Merlin - Ranked 164

<sup>27</sup> Global Powers of Retailing, Deloitte Touche Tohmatsu, 2002.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

Some of the major customers and the contribution over 10% on average from year 1998 to year 2002 Group's proforma turnover is set out as below:-

Customers	Amount of total turnover (RM'000)	Contribution (%)	Length of relationship (Year)
C.H. Brannam Ltd, UK	9,885	30.83	18
Fontina GmbH, Germany	3,404	10.61	15
Others	18,776*	58.56	-
	32,065	100.00	

\* after deduction of sales rebate and sales adjustments

Source: ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)

APPI Group is not over-dependent on any single customer. APPI has many valued customers that have formed close working relationships with them over the years. The Group has diversified and strong clientele base in different continents and countries. As illustrated above, approximately 58.56% of APPI's customers contribute individually less than 10% of its 5-year average turnover.

#### 4.8 Major suppliers

The Group has two (2) major types of suppliers. The first supplies raw materials as input into their manufacturing process and the other supplies finished ceramic goods for shipment to customers. Generally, the former consists mainly of local suppliers supplying clay, minerals, coloring and other materials. The latter suppliers refer to "smart partnerships" with local sub-contractors and offshore alliances in China. Offshore alliances in China rely fully on APPI's technology transfer and marketing coordination. In return, 100% of its output is sold to APPI. In most cases, these alliances will ship the products directly to APPI's customers, while APPI provides support in terms of document handling and shipping administration.

##### 4.8.1 Raw Material Suppliers

These suppliers consist mainly of local suppliers supplying clay, minerals, colouring and other materials to APPI<sup>28</sup>. Over 95% of raw materials used by APPI in its manufacturing process are sourced locally. Some raw materials that are usually imported include frits (colour pigments), feldspar and high quality kaolin. The higher quality kaolin is usually blended with local clay to produce higher quality end products. APPI's major suppliers who each contribute over 1% of purchases are listed in the table below. However, none of the suppliers individually contribute more than 10% of APPI's purchases.

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<sup>28</sup> Over 95% of raw materials are purchased locally.

**4. INFORMATION ON THE APPI GROUP (Cont'd)**

Subsidiary	Name of Supplier	Country of incorporation	Type of product(s) supplied	Years of relationship
APM	Toh Hai Pin & Co. Sdn Bhd	Malaysia	Clay	21
	Concord Chemicals Corporation Sdn Bhd	Malaysia	Glaze material	20
	Continental Ceramic Services Sdn Bhd	Malaysia	Glaze material	17
	Tinex Kaolin Corporation Sdn Bhd	Malaysia	Glaze material	7
	Chemiserve Corporation (M) Sdn Bhd	Malaysia	Glaze material	7
	Viswang Services	Malaysia	Colours stain	7
	Metoxide Frits & Chemicals Sdn Bhd	Malaysia	Glaze material	4
Maha Chemical Sdn Bhd	Malaysia	Colours stain	3	
AE	Concord Chemicals Corporation Sdn Bhd	Malaysia	Glaze material	9
	Chemiserve Corporation (M) Sdn Bhd	Malaysia	Glaze material	9
	T&N Trading	Malaysia	Clay	8
	Continental Ceramic Service Sdn Bhd	Malaysia	Glaze material	7
	Lau Yook Fa	Malaysia	Clay	3
	Metoxide Frits & Chemicals Sdn Bhd	Malaysia	Glaze material	3
	HJ Pottery Sdn Bhd	Malaysia	Clay	2
	Kong Long Huat Chemicals Sdn Bhd	Malaysia	Glaze material	2
	Boon Soon Trading	Malaysia	Clay	2
Sin Hoong Soon Trading	Malaysia	Clay	2	
OW	Concord Chemicals Corporation Sdn Bhd	Malaysia	Glaze material	5
	Kam Yoon Transport Agency Trading Co.	Malaysia	Sea Clay	5
	T&N Trading	Malaysia	Clay	5
	Chemiserve Corporation Sdn Bhd	Malaysia	Glaze material	4
	Chia Yek Leng	Malaysia	Clay	2
	Kor Chin Trading	Malaysia	Clay	2

Source : APPI

Depending on the production needs and the availability of materials in the local market, majority of raw materials is purchased locally. The Group only purchases at the most competitive prices and specifications required for their product type without compromising on the quality of the materials.

Suppliers operate in a highly competitive environment, each wanting to initiate and establish long-term contracts with customers. Due to the numerous sources of suppliers and manufacturers, the availability of raw materials is ensured. The suppliers of APPI also serve other major local manufacturing as such, a high degree of quality can be expected.

The Purchasing Department of each individual subsidiary does the sourcing of raw materials and suppliers. Major raw materials eg. Cobalt Oxides, which are likely to be faced with speculation and price fluctuation, is centrally sourced and even purchase when necessary.

Normally before commencement of any contract or order, APPI will estimate the resources and types of materials needed to cater for the total existing as well as expected demand of production. Then, once the final bill of materials has been prepared, it will proceed to make arrangement with the respective suppliers for the purchase so as to ensure continuous supply of materials throughout the production process.

Sourcing of raw materials is dependent on the type of orders received from customers, while the need for a certain amount of raw materials can be



#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

projected in advance, other variables like seasonal colours, glazing chemicals vary from season to season. The Purchasing department manages this process by taking into account order backlogs, projected sales by customer, regular repeat orders and other market demand based on information provided to them by the Marketing Department. For the newer designs, they work closely with the R&D and Production teams to source for the right raw materials.

As emphasised earlier, mainly local raw materials are used and only in certain exceptions materials are imported from overseas. In the event that local clay supplies run low or if the Malaysian Government restricts amount of clay that can be extracted, APPI would start to source for raw materials in other countries - e.g. Vietnam, Thailand, China, Indonesia and Philippines. This would increase the cost of production by a slight margin due to shipping and other costs incurred from purchase of raw materials overseas. However, APPI would be able to maintain its product pricing by streamlining and improving further the efficiency of the production process.

#### 4.8.2 Finished Ceramic Products Suppliers

In addition to the Group's manufacturing plants, APPI has also established ties with local and off shore manufacturing partners or alliances. Currently, 72% of APPI's total output is produced in Malaysia, while the offshore manufacturer produces the balance.

##### Offshore

Since 1992, the Group's growth model has also been expanded via "smart partnerships", for example their expansion into China to leverage on lower cost labour and large supply of high-quality raw materials<sup>29</sup>. Raw materials are very important element to non-structural ceramic manufacturing. One of APPI's offshore alliances is APCZ, located in Chou Zhou, China, where a special raw material sourced locally has unique characteristics that enable the terracotta pots to maintain its red body yet presenting the rare frost-resistant features<sup>30</sup>. These glazed terracotta pots are not commonly found in the industry, with the largest producers hailing from Italy. One of the leading producers of this glazed terracotta pots is Deroma, from Italy. APPI's China alliance produces these pots as part of their production.

This alliance relies fully on APPI's technology transfer and marketing coordination. In return, 100% of its output is sold to APPI. This relationship is currently in its 9th year of business operations. In terms of production capacity, APPI's China alliance produces approximately 400 of 20' containers as compared to 2,000 of 20' containers produced in Malaysia.

While there is no formal written contract between APPI and Chou Zhou, China ("APCZ"), the long-standing business relationship has proven to be beneficial to both parties. APCZ enjoys marketing and technology support while APPI enjoys a supply of high quality terracotta pots. As APPI provides the technology transfer, the same production process is used in APCZ, the only difference being the quality / type of clay being used. APPI's internal QC team conducts the QC check for APCZ and all rejection costs is borne by APZC. In most cases, APZC ships the products directly to APPI's customers, while APPI provides support in terms of document handling and shipping administration.

<sup>29</sup> High fired red clay, which can withstand extreme temperature of 1200 degrees Celsius and above.

<sup>30</sup> The white clay used in the Malaysian operations is also frost resistant.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

Payment is made by customers, directly to APPI who then transfers amount owing to APCZ. Should APCZ fail to meet the quantities required by APPI, the Group would source for other factories in China that produce the same products. There are many such factories in China and should APCZ decide to discontinue the business relationship, APPI can easily source for another such factory to replace APCZ.

##### Local

There are a handful of good local alliances which consist of manufacturers that work together and leverage on their manufacturing capacities to support APPI's orders. In return, they gain the marketing strength to secure seasonal export. This alliance network has expanded over the years and has been in balance for over 18 years. These local sub-contractors are used mainly to produce flower pots, which is the major product category for APPI.

Name of Supplier	Years of relationship
<b><u>Local sub-contractors</u></b>	
Cheap Lie Pottery Sdn Bhd	13
Hung Siak Kan	13
Thow Lee Pottery & Nursery	13
Shee Huat Pottery (Ipoh) Sdn. Bhd.	11
Tan Guan Hong (Bak Kee)	11
Gopeng Pottery Sdn. Bhd.	9
Hoi Hing Loong Sdn. Bhd.	9
Lee Seng Pottery Sdn. Bhd.	8
Hong Lean Sdn Bhd	7
Hup Seng Pottery Works	7
Sincinly Pottery Sdn. Bhd.	6
Towyongi Pottery Sdn. Bhd.	6
Prosper-Li Clay Products Sdn Bhd	4
Sin Thai Seng Pottery Sdn. Bhd.	4
Lee Seng Huat Sdn. Bhd.	3
TL Pottery Industries	3
Excel Pottery (M) Sdn Bhd	3
Foo San Pottery Sdn Bhd	2
Goh Seng Trading	2

APPI provides the designs, technical and marketing support to partner facilities, while the manufacturing partners focus on production to reach economies of scale and supply competitive ceramic products to APPI for export. This method of expansion has proven to be much faster than organic growth. APPI has been investing successfully in these suppliers as part of their contingency capacity strategy over the years. The skill level of these sub-contractors / manufacturing partners are of good, exportable quality. APPI further ensures this by conducting stringent QC checks on them.

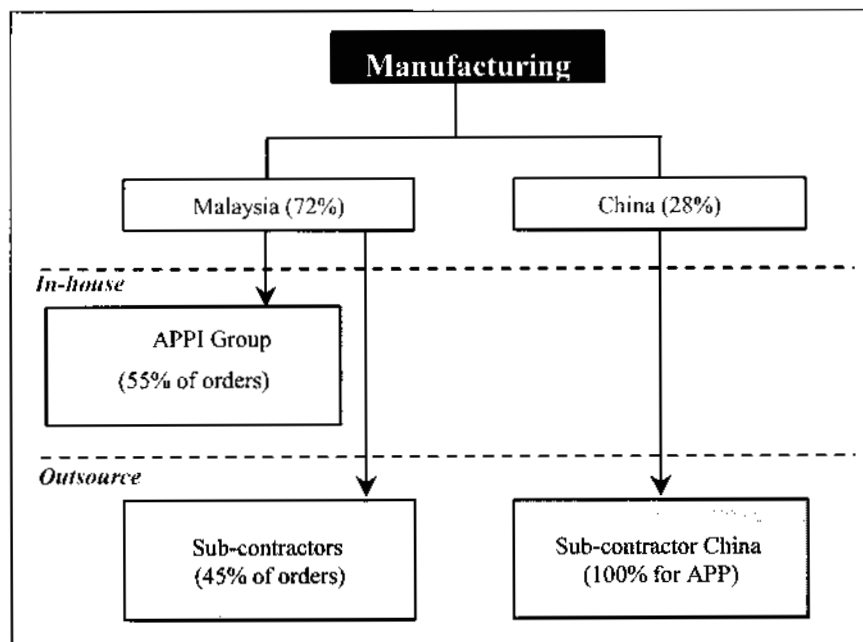
The manufacturing of non-structural ceramic products is a specialised and technical process. Experts in this field are a scarcity, both domestically and internationally, preferring to work on the more complicated products, such as semi conductor structural clay products rather than in the decorative ware and pottery sub-sector. Thus, there tends to be a high degree of collaboration amongst manufacturers in the community, resulting in the sharing of knowledge and technical expertise. APPI, based on its years of experience in export and the owner's family background, offers valuable technical insights and knowledge transfer to their alliance partners. This relationship had been very effective and has been ongoing for many years.

#### 4. INFORMATION ON THE APPI GROUP (Cont'd)

The Group out-source 45% of the production in Malaysia to local alliances as mentioned above. They are often called "satellite factories". These factories allow APPI to reduce fixed operating costs and provide more flexibility in managing peak and low production periods. All of APPI's plants run at around 80% of full capacity, leaving some buffer for production shocks and unplanned orders.

In the long run, it allows APPI to transfer skills and technical know-how to other smaller players in the industry, in preparation for globalisation and stiff competition from lower-cost ASEAN countries like Vietnam. APPI is currently one of the main manufacturer / exporter from the private sector that helps promote and build the handicraft industry in Malaysia. Mr. Ow Hang Sen, representing APPI, sits on the Ceramic Board, together with 6 other government and quasi-government bodies. The key driver in promoting this industry is the Lembaga Kraftangan, which falls under the Majlis Perunding Pembangunan Industri Kraf.

Operating cost and asset allocations have improved due to these growth strategies. Since the Group views these as long term investments or expansion plans, they are willing to enter both the local and overseas markets even during recession and wait for the boom period, since the alliance or business opportunity can be proven to add value to the business of the Group. The chart below provides an overview of APPI's outsourcing and sub-contractor arrangements.



Source : APPI and ACNielsen's report dated 25 June 2002 (with updated version dated 12 December 2002)

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