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# Economic Briefing To the Penang State Government

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## Textile & Garment Industry In Penang, Is It Sunset Or A Rising Star?

### Introduction

The textile & garment (T&G) industry is often referred to as a 'sunset industry'. The reality is quite contrary, it is an 'evergreen industry' because it is an industry that will last as long as there is a need for clothing. Saha & Jaseem (Saha, 1994) indicated that the T&G industry is an industry often encouraged by governments and one with substantial contribution to manufacturing output, employment, and foreign exchange in developing countries. In today's information & communication technology (ICT) age, many of the less developed countries, including some among the ASEAN10 are still promoting the T&G industry as an export earner.

In most developing countries, the T&G industry started with the downstream activity, namely garment or clothing and then grew sequentially to textile. On the other hand, the export-oriented garment industry in Penang started almost simultaneously with the textile industry, manufacturing grey yarn, grey fabric and fibre and dyeing processes as well as clothing. As such, the T&G industry in Penang today includes the production of fibre & yarn, fabric, textile articles such as sewing thread, towels, bedsheets as well as garment. The primary processes include spinning, weaving, knitting, and finishing while the secondary process is based on manufacture of garment. (Figure 1)

### A Historical Perspective & Recent Progress

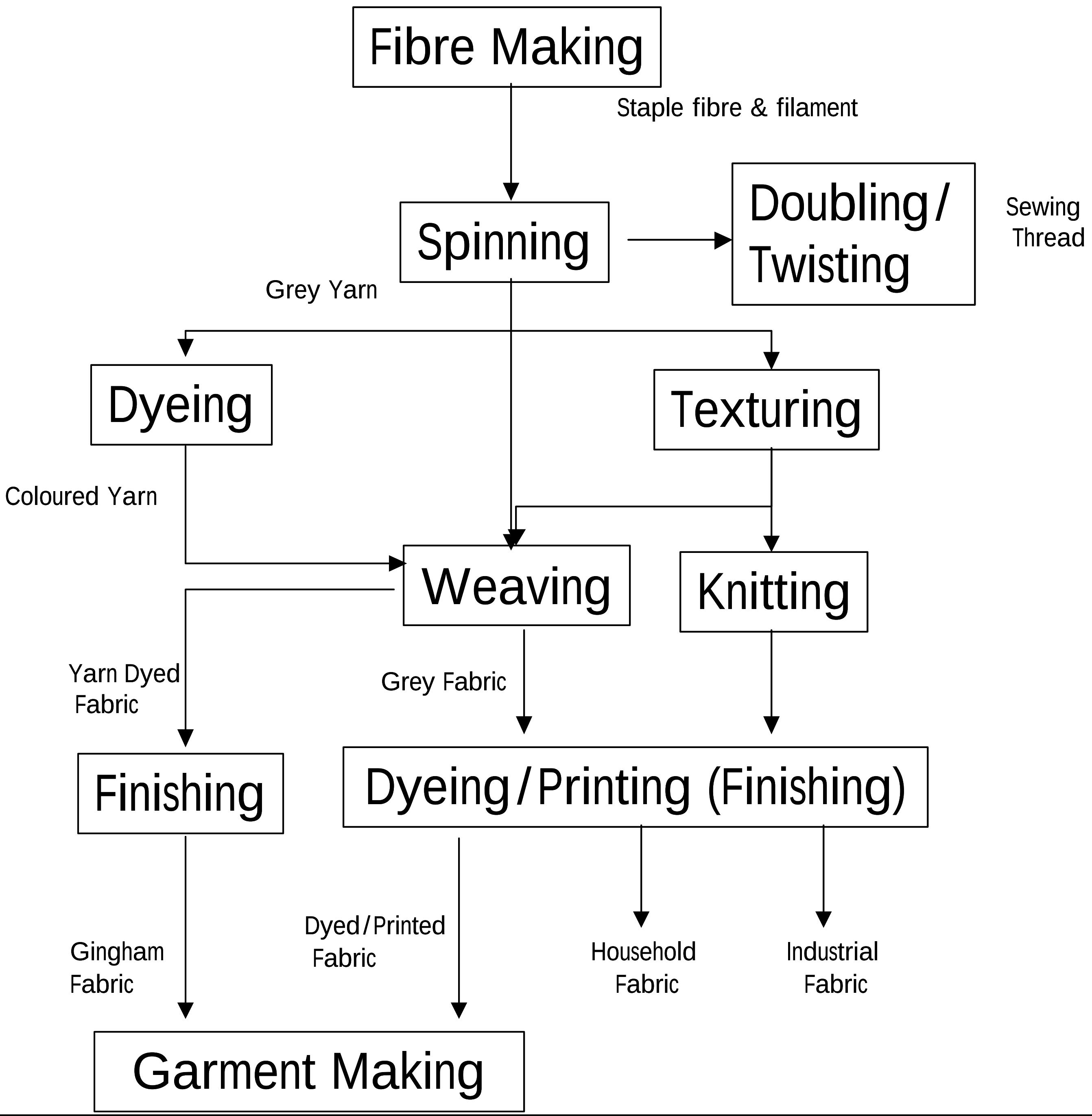
The first export oriented garment factory in Penang was set up in 1963 at Jalan C Y Choy (YH Tan, 1989). However, with the promulgation of the Free Trade Zone Act in 1971, more companies, both domestic and export oriented companies began to set up operation in Penang. The major influx of textile investments was in the first half of the 1970s, when the TAL Group of Hong Kong and the Toray Group of Japan set up operation in Penang (Pentex – 1972, Penfabric – 1973, and Penfibre – 1974). However, the arrival of textile companies ended there except for a few new investments. The influx of new T&G companies and their investments were mainly in the garment sector. As such about two-thirds of the T&G companies in Penang today comprise companies that fall under the garment sector.

*Investment*

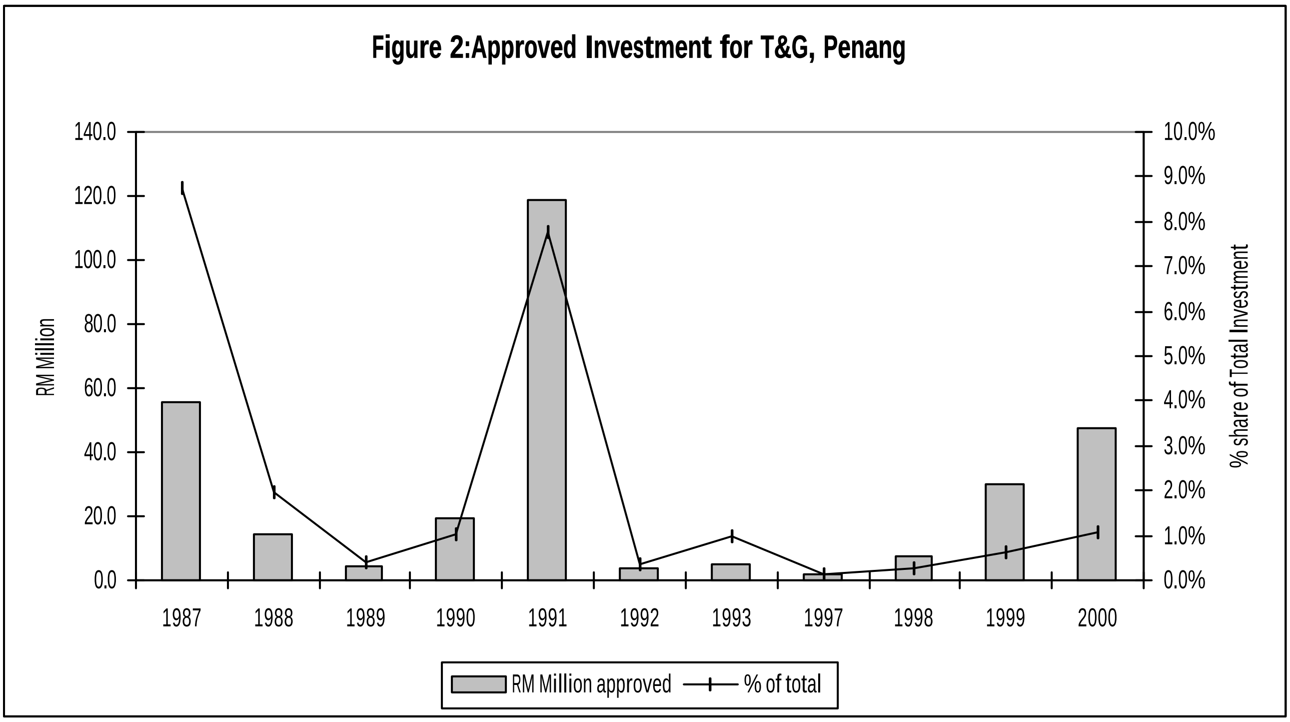
Figure 2 shows the approved investments for projects in the T&G industry in Penang for selected years between 1984 and 2000. The year 1991 recorded the highest amount of investments in the T&G industry approved during the 13-year period. Investments in the T&G industry have never exceeded 10 percent of the total investments approved for the State

*(I wish to thank Dato OK Lee of Pen Group and Dato YH Tan of Pen Apparel for their comments, suggestions and feedback)*

Figure 1: Textile & Garment Industry




during that period. In 1988, investments in the T&G industry accounted for 8.8 percent of the total investments approved for the State and that was the highest ever recorded over the 13-year period. During certain years (1989, 1992, 1997, 1998, and 1999) investments in the T&G industry accounted for less that 1 percent of the total investments approved for the State. In 2001, the State did not receive any new investments or reinvestments from the T&G sector. The state of investments from the T&G industry implies that the importance of this industry as a contributor to the State's GDP is dwindling.




Source: Derived from MIDA, various years

*Employment, Value Added and Salaries Generation*

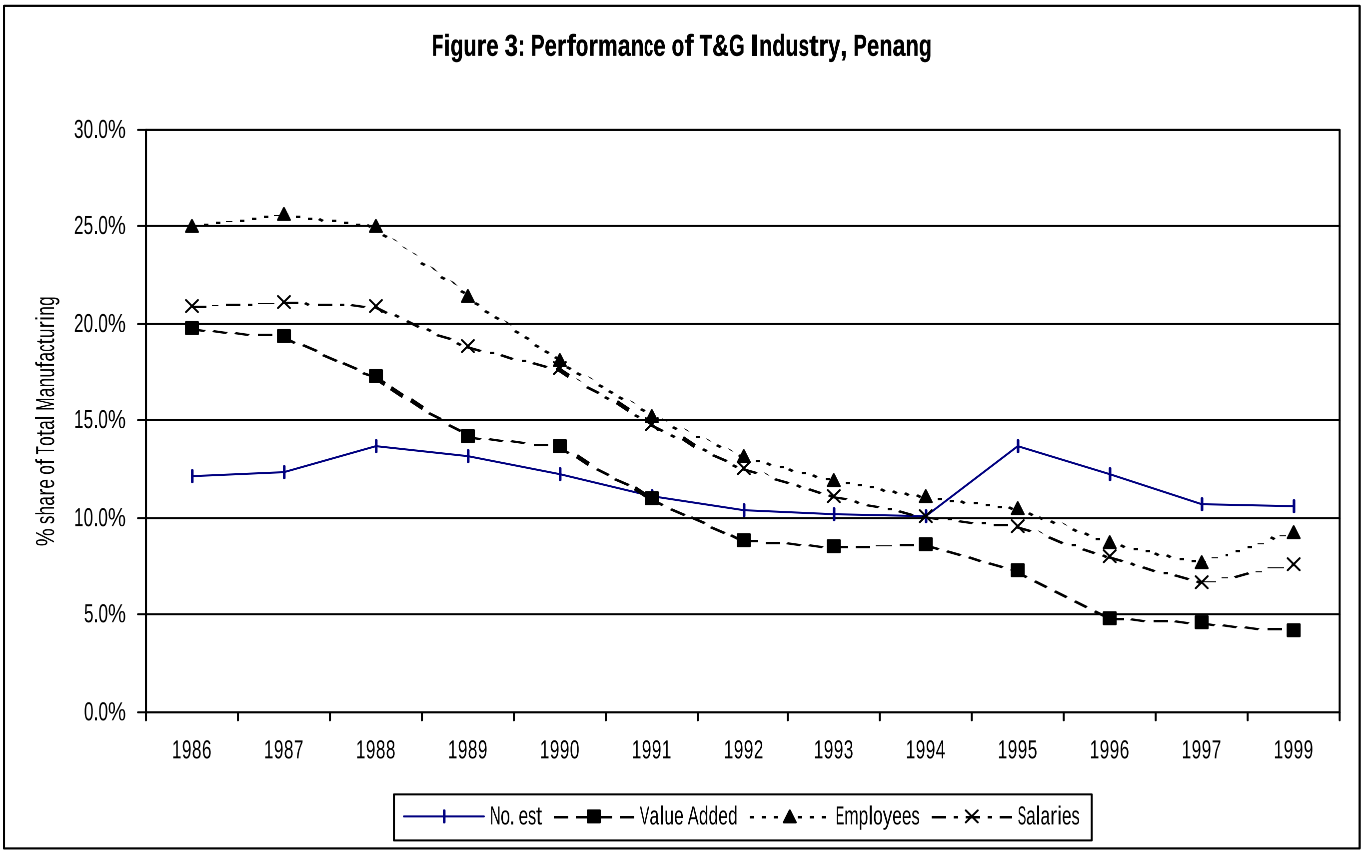
Despite the fact that investments in the T&G industry accounted for less than 1 percent of the total investments approved for the State since 1997, contribution of the T&G industry in terms of employment generation was maintained in the region of 7 to 10 percent in the second half of (H2) the 1990s. In addition, the T&G companies accounted for about 10 percent of the total number of manufacturing companies in the H2 1990s.

Likewise, the T&G industry contributed between 6 to 10 percent of the total salaries in the manufacturing sector during the same period. However, contribution in terms of value-added was lower, hovering around 4 percent during the H2 1990s. This implies that the present T&G industry is a low value-added industry despite the fact that it contributes in terms of employment and salaries generation. This also points to the declining importance of the T&G sector as an income earner for the State.

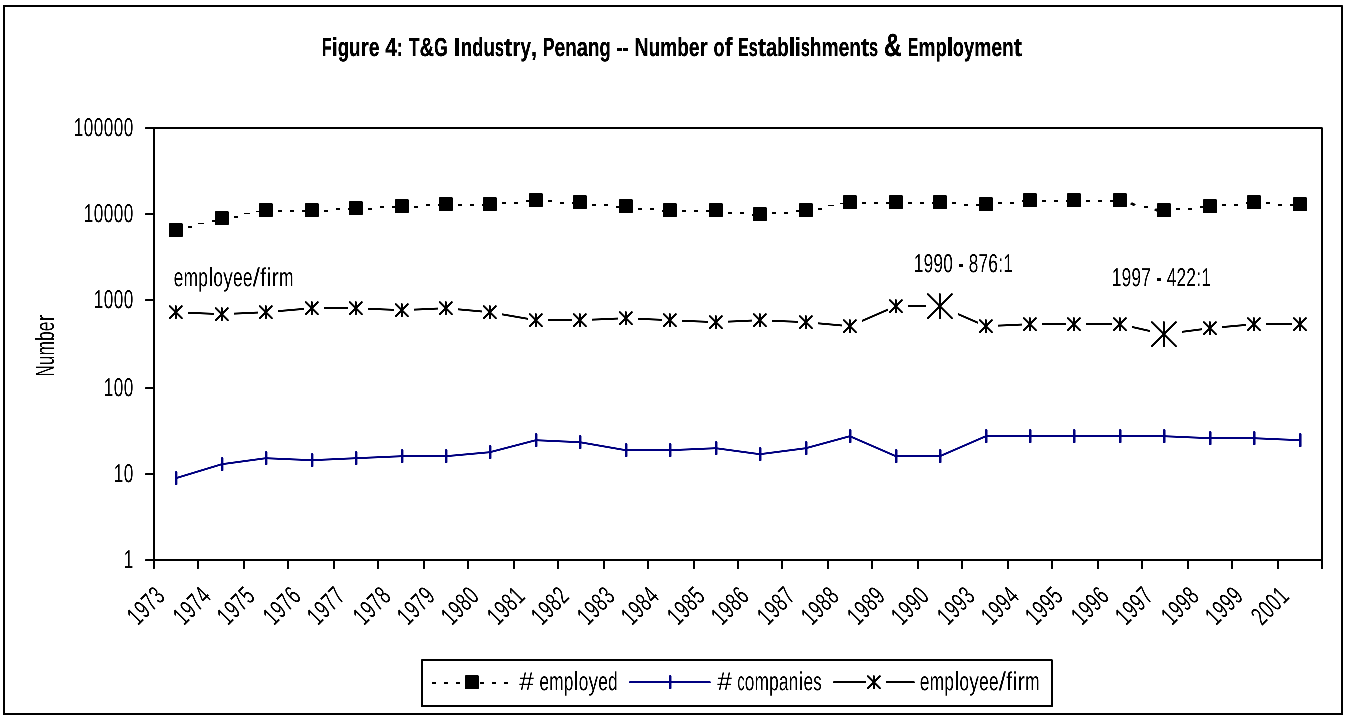
Figure 3, which shows the performance of the T&G industry from 1986 to 1999, indicates a declining trend for the industry. The contribution by the T&G industry has waned as a result of relocation of lower-end T&G operations to lower-cost countries like Vietnam, Cambodia, Sri Lanka, China and even southern Africa.

Figure 4 shows that employment generation from the T&G industry reached its peak in 1981and dipped to its lowest in 1986, during the economic crisis of the mid-1980s. Employment generation in the T&G industry picked up in 1987 but reached a plateau in the late 1980s and early 1990s before it encountered another dip in 1997. However, the 1997 decline was not as severe as that in 1986. This is mainly because the export-oriented T&G industries were thriving due to the lower ringgit against the US dollar as a result of the crisis. On the other hand, the domestic-oriented garment industries were badly affected. However, employment in the domestic-oriented garment companies was insignificant compared with that in the export-oriented T&G companies.

While the lower value-added and less competitive operations have been relocated to lower cost centres, it is observed that the employee per firm ratio has dropped from a high 876:1 in 1990 to 422:1 in 1997. Automation has moved in and fewer workers will be required to carry out the same task. (Figure 4)




Source: Derived from DOS, various years




Source: Derived from PDC Industrial Surveys, various years

*Export Performance*

In the absence of State data for exports, WTO and national data are used in the discussion on the export performance of the T&G industry. During the first half of 1990s, Malaysia recorded negative trade balances for the textile sector. However, the CAGR (compounded annual growth rate) for Malaysian textile exports actually grew by 26.9 percent between 1990 and 1995 while the CAGR for Malaysian textile imports grew by 10 percent during the same period. This contributes towards the decrease in trade deficit in 1995 compared with 1990.

Malaysia recorded positive trade balances for the textile sector in 1998 and 1999. However, textile exports actually contracted by 1 percent per annum between 1995 and 1998. The positive trade balance is attributed to a double-digit contraction in textile imports during the same period. Overall, Malaysian textile exports grew by 14.1 percent per annum during the 1990s while Malaysian textile imports grew at a slower pace of 0.7 per cent per annum during the same period. These figures indicates that Malaysia is still relatively competitive in textile exports.

*Table 1 : T&G Industry, World Exports & Imports*

| | USD Million | | | | CAGR (%) | | | |
|---|---|---|---|---|---|---|---|---|
| | **1990** | **1995** | **1998** | **1999** | **1990-95** | **1995-98** | **1998-99** | **1990-99** |
| **Textiles** | | | | | | | | |
| Exports | 343 | 1129 | 1094 | 1120 | 26.9% | -1.0% | 2.4% | 14.1% |
| Imports | 951 | 1535 | 924 | 1015 | 10.0% | -15.6% | 9.8% | 0.7% |
| Trade Balance | -608 | -406 | 170 | 105 | | | | |
| **Garment** | | | | | | | | |
| Exports | 1315 | 2266 | 2302 | 2253 | 11.5% | 0.5% | -2.1% | 6.2% |
| Imports | - | - | - | - | - | - | - | - |

Source: WTO, International Trade Statistics, 2001

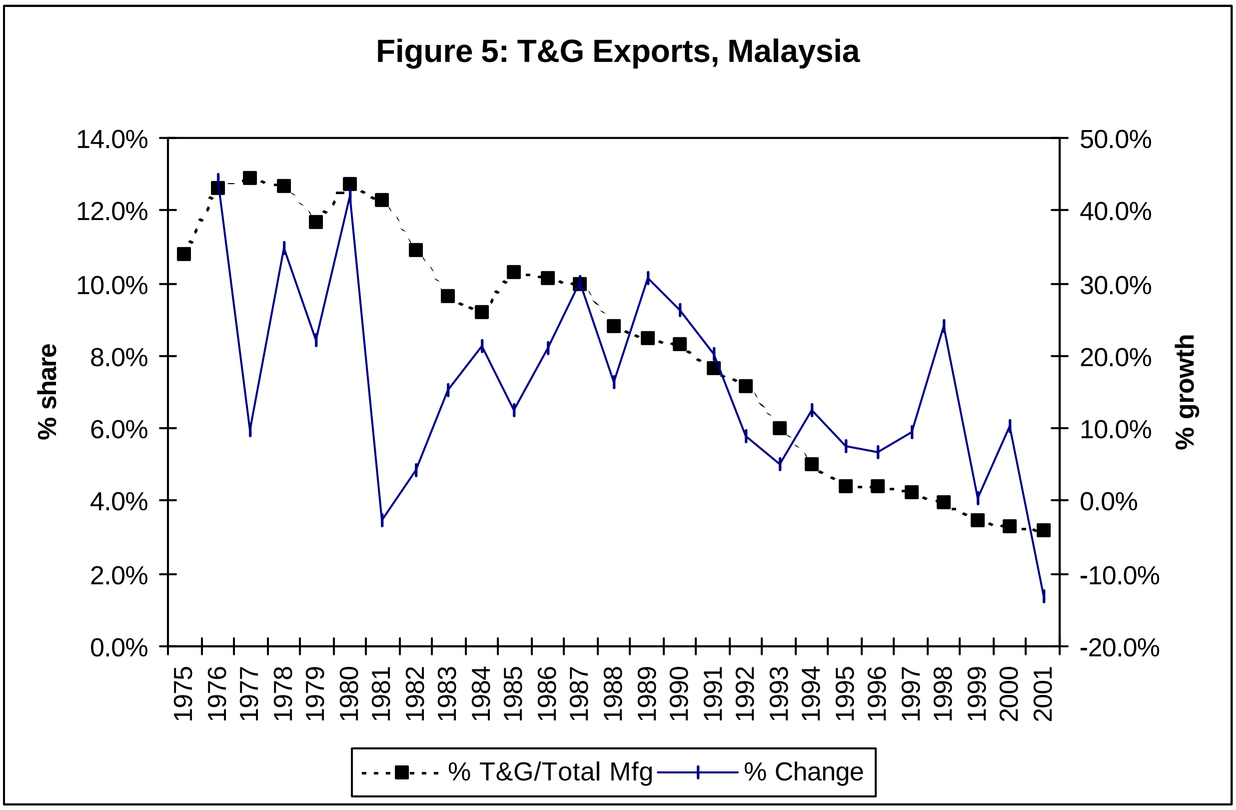
Figure 5 shows that T&G exports as a percentage of total manufacturing exports rose from 10.8 percent in 1975 to its peak of 12.9 percent in 1977. The share of T&G exports fluctuated in the region of 11-13 percent during the 1977-1981 period. It was a downward trend from 1982 onwards with slight improvements in terms of T&G exports in 1985-1987. T&G exports as a percentage of total manufacturing exports dropped to about 8-9 percent in 1988-1990 and dropped further to about 7-8 percent in 1991 and 1992. By 2001, the share of T&G exports dropped to its lowest at 3.2 percent of total manufacturing exports.

Despite the fact that Malaysia still records positive trade balances in the T&G industry, the contribution of the T&G sector to Malaysian exports has declined significantly. In addition, T&G exports, which experienced double-digit growths in the 1970s and 1980s had begun to dwindle in the 1990s. In 2001, T&G exports contracted by 13 percent.

*Contributing Factors To Growth*

Despite the fact that the T&G industry plays a declining role in terms of employment and income generation as well as an export earner, some of the T&G companies still consider Penang an appropriate location for their operations. These include the foreign-owned OEMs (original equipment manufacturers, namely companies that cut, sew and trim (CST) for their overseas customers).

The ability of Penang to attract and sustain these companies is attributed to the political stability of the country, supported by adequate infrastructure facilities. In addition, the close rapport between the industry and the government is an added advantage for the companies, especially when government intervention is required to resolve certain issues, such as utilities, labour and exemption on certain regulations.




Source: http://www.bnm.gov.my

Human capital also contributed significantly to the growth of the T&G industry as well as played a role in sustaining the companies here. Three main determining factors, namely quality, reliability and delivery are plus points of Penang's human resources. Although the labour force in Penang is often alleged by many industrialists as being less competitive than those in China and the neighbouring lower-costs countries, where their labour force are 'hungry' for jobs, Penang's advantages in terms of quality, reliability and delivery have managed to maintain competitive pricing of Penang's products. The reasonably good labour/management relationship in the T&G companies has also contributed significantly to maintaining quality, reliability, delivery and competitive pricing. Although employees in the T&G companies are unionised, few or hardly any trade disputes have taken place. The country's Trade Unions Act 1959, Trade Unions Regulations 1957 as well as the Industrial Relations Act 1967 have managed to protect the legitimate rights of both the employers and employees.

**Issues & Challenges**

The statistics have shown that the T&G industry is heading towards a downtrend yet some of the T&G companies are still able to sustain their operations in Penang. However, it is definitely not easy at all to manage an industry at a location that is plagued with various issues and challenges. The multi-faceted issues and challenges are discussed below:

*Human Capital*

Despite the fact that the worker-firm ratio has dropped by more than half in the 1990s, the T&G industry, particularly the garment industry, by nature, requires an abundant supply of labour in order to perform at its best. In addition, labour force in today's garment business does not refer to any local or foreign labour, but skilled and trained personnel to take on the job to meet international customers' stringent requirements. This is mainly because the key garment firms in Penang today are OEMs to international brandnames. Likewise, the textiles companies that have gone through automation and upgrading will increasingly require skilled and trained personnel to replace manual workers.

The skilled and trained personnel in the T&G industry refers to chemical & mechanical engineers; technicians; professional cutters with expertise in using CAD (computer aided design); planners; personnel trained in ERP (enterprise resource planning) and e-commerce; marketing experts; personnel with knowledge on textiles & garment design, production, management & marketing, textile sciences and business processes in the fashion supply chain; as well as R&D (research & development) personnel. The R&D will be in the areas of T&G for specific requirements, e-commerce, mass customisation, environmental textiles & technology as well as CADCAM (computer aided design, computer aided manufacturing).

By nature of the industry, profit margin is small, particularly in the garment industry. As such, the garment companies require large volumes to secure fair returns on investments. Furthermore, with the emergence of intense competition for garment contracts from countries like China, Indonesia, Thailand, Cambodia and Vietnam, garment companies in Penang, Malaysia should consider themselves fortunate when they receive large orders. However, shortages of workers, both at the skilled and production levels have hindered the progress of these companies. Notwithstanding the massive layoffs (more than 15,000 Malaysians) that occurred in Penang last year, as a result of which workers at the production level were most affected, the garment companies still experience difficulties in recruiting from among this group of laid-off workers. The rationale is that the production workers from the electronics industry could not attune themselves to the 'work-style' of the garment industry. As such, these workers did not remain in their new jobs and left after awhile.

As a result, many garment companies depended greatly on foreign workers to stabilise and expand their operations. However, there were incidences when licenses were given for the import of male workers instead of female workers. This impedes the production processes of the companies because female workers were deemed to be more suitable for the garment companies, particularly in the areas of sewing. Shortages of workers at the production level resulted in the companies having to decline large orders.

*Technology*

Unavailability and/or shortages of skilled and trained personnel in the T&G sector have resulted in the low absorption rate of technology, especially among the local-owned companies. There are little or no innovation activities among the local-owned companies, particularly the domestic-oriented companies. The local-owned domestic oriented firms are more concerned about their own issues and problems like market and debt collection so that little or no priority is placed on innovation as well as technology acquisition. In addition, their operations are more manual than automated. Their lack of technology has also resulted in limited or no opportunity for them to work with the foreign-owned OEMs because they are less likely to meet the stringent specifications from the OEMs' international customers.

*Linkages*

Linkages between the foreign-owned as well as large-scale local-owned OEMs and the local-owned domestic-oriented firms are weak. Other than the lack of technology and interaction with the OEMs, the local domestic firms have little opportunities to do subcontract work for the OEMs because of strict requirements and specifications from the international customers. These requirements and specifications do not only include quality, reliability, delivery and pricing but also in terms of materials used in the production, such as fabric and accessories.

*Design Capabilities*

Penang, Malaysia is not close to the fashion markets of the world and does not have the capability to create its own fashion trend to be emulated by the other markets. In addition to being far from the world's fashion markets, Penang and Malaysia in general, lacks fashion designers, who can design for buyers such as Mark & Spencer and JC Penney. In addition to the limited number of local fashion design talents, Malaysia is and will not be the base for world-class Malaysian fashion designers like Zang Toi and Yeohlee who produce for the elite markets. This is mainly because Malaysia does not have the market for such fashion products from these world-class designers.

*Phasing Out of MFA*

The Multi-Fibre Arrangement (MFA) was established in 1974, with the objective to "….. achieve the expansion of trade, reduction of barriers to such trade and the progressive liberalisation of world trade in textile products while at the same time ensuring the orderly and equitable development of this trade and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries" (cited in O'Connor, 1989). The MFA was meant to be a short-term measure, mainly to give industrialised countries a breathing-space to adjust to competition from imports from developing countries. In short, the MFA provided the basis for the industrialised countries to restrict imports from the developing countries. The import quotas are agreed upon every year and this refers to the quantities of specified items, which can be traded between the importing and exporting countries. The exporting country then allocates licenses to firms to export a certain proportion of each quota.

Although the MFA has been extended several times, the Agreement on Textile and Clothing (ATC) has outlined a programme to phase out the MFA over a period of 10 years, i.e. by 2005. The ATC applies to all World Trade Organisation (WTO) members whether or not they are signatories to the MFA. The objective of ATC is to integrate trade in T&G with the rules of the WTO. Although the ATC is seen as operating in the interest of developing countries, because it increases their access to the previously protected markets of industrialised countries, little attention is paid to what the implications are for the workers. In addition, the US and European countries are seen as deliberately holding back on the phasing-out process to protect their own industries.

Other issues and challenges related to the phasing out of the MFA, which will affect the T&G industry in Penang include the following:

(i) Limited increase to export opportunities for the developing countries, which include Penang. This is mainly because of the phasing out process which requires the minor and least important products to be phased out first, leaving the most important products (which happen to be the main export earners of the developing countries) to be phased out at the end of the 10-year period.

(ii) Rules of origin – there is increasing pressure being imposed by the developed countries to prove the genuine country of origin as well as concern about the changes in rules of origin being introduced by the US, which the Asian countries claimed to be a breach of WTO rules.

(iii) Reciprocal market access -- the EU is increasingly pressuring the developing countries to open up their markets in return for a more sympathetic phase out programme. The developed countries, particularly the EU and USA want to take advantage of the expected increase in demand for up-market clothing by the growing Asian middle classes. By opening up their markets, the relative competitiveness of developing countries will have to depend on their wage costs; supply of fabric, yarn & other materials; supporting infrastructure as well as proximity to market. With these conditions, it is envisaged that Asia will face significant changes in the distribution of production.

*Responsible Apparel Production (RAP)*

A non-governmental organisation (NGO) movement called RAP in the developed countries is increasingly pressuring the buyers to impose 'Human Rights' standard on the OEMs. Non-compliance to this standard will result in the NGOs lobbying for a boycott of the particular brandname. This standard requires the workers at the OEMs plant to have 'overtime' (OT) work of not more than 60 hours per person per month. Although the OEMs would like to comply with these standards in order to have continuity of orders and to sustain their business, the standard imposed by RAP is very stringent compared with the 104 overtime hours allowed by the Malaysian government.

**Recommendations**

The T&G industry generally tends to increase and then decrease in relative importance to an economy as it gradually transforms from a non-industrialised (or in most cases agrarian) economy to become a modern industrial economy or a post-industrial economy. Penang saw a rise in the T&G industry in the 1970s and a downtrend of the industry in the 1990s. However, what is certain, the demise in this industry is not desirable. As such, in order to maintain and sustain investments in the T&G industry, several strategic actions have to be adopted and implemented. The recommendations are as follows:

*Human Capital*

An important means to alleviate the shortages of human resource for the T&G industry is to match the supply of labour with the demand. As it is evident that the T&G companies need skilled and trained human resource to progress further and to compete in the ever-challenging international market, training in the areas of T&G design, production, management and marketing is critical. Knowledge of business processes in the fashion supply chain as well as textile sciences is equally important.

Presently, none of the local public and private universities/colleges is providing courses on T&G although developed countries like the US and UK have centres and universities that offer courses for the industry. For example the North Carolina State University in the US has a College of Textiles and De Montfort University in the UK has a Department of Textile Design & Production.

In Malaysia, the only organisation that is offering training in the T&G industry is the Malaysian Textile and Apparel Centre (MATAC) of the Malaysian Textiles Manufacturers Association (MTMA). The courses offered are as follows:

- Method Study in Clothing Manufacture
- Quality Data for Improvement
- Time Study in Clothing Manufacture
- Industrial Safety
- Occupational Safety and Health Act 1994
- Introduction and Implementation of 5s - Good Housekeeping
- Practical Statistical Process Control (SPC)
- Building an Effective and Productive Management Team
- Using Email & Internet for Higher Efficiency
- Effective Negotiation Skills
- CAD - Marker & Grading
- CAD - Pattern Design System

(source: http://www.fashion-asia.com)

While MATAC has collaborated with the Hong Kong Polytechnic University on apparel making and merchandising as well as has done a good job in providing training for the workers in the T&G industry in Malaysia, it would be advantageous if the centre, through MTMA, could further extend its training programmes to include T&G design, management and marketing as well as supply chain. In addition, it would also be beneficial if MATAC as well as MTMA and its branches could build strategic alliances and collaborate with other universities in the US, UK, Australia and Taiwan to design courses and research projects that could help upgrade the Malaysian T&G labour force.

As for the means to meet the shortages of workers at the production level, it would be advantageous if the factories themselves (either among the T&G companies or with companies in the other manufacturing sector) devise a system to share their workers. This concept is somewhat similar to the 'load sharing' concept used by the airlines. The workers from the company with minimal capacity utilisation or very low orders at a certain point of time are transferred to the company with large orders that its existing workforce alone could not cope with. This concept does not only avoid having the worker being laid-off in times of low orders but also helps her to earn extra income if she performs well (i.e. rewards paid for exceeding the set target).

Lastly, T&G companies in the low-end and labour-intensive products & activities should consider relocating their production capacity to lower-cost locations such as Vietnam, Cambodia, Indonesia and China if they find it unfeasible to maintain their operations in Penang due to escalating costs of doing business. By relocating their operation, they will not only help to maintain the survival of their companies but also contribute in terms of gross national product (GNP) through repatriation of profits.

*Technology Upgrading*

The T&G industry, which is considered as a low technology, labour-intensive and low capital-intensive industry (except for fibre making, spinning, weaving, dyeing and finishing) has outlived that primitive phase. The T&G companies, especially the foreign-owned OEMs have upgraded themselves in many aspects, such as R&D (eg. wrinkle-free apparel) as well as implemented customer relationship management (CRM) through the use of e-commerce.

Regrettably, the local-owned domestic companies are not motivated to take on innovation activities due to lack of funding, technological know-how as well as motivation. In addition, they also lack information on the availability of grants and financial assistance that could help them to upgrade as well as the application procedures for the grants and assistance.

Some of the grants available are in the form of (i) Industrial Technical Assistance Fund, which provides assistance to small and medium industries (SMIs) to undertake studies in business planning, technology and market development; to improve and upgrade existing product, product design and processes; and for productivity & quality improvement as well as to achieve international quality standards and certification; and (ii) E-manufacturing Grant, which provides assistance to small and medium enterprises (SMEs) to use information and communication technology (ICT) to improve competitiveness, efficiency and productivity. Although priority is given to SMI/Es that are manufacturing products or involved in activities or services promoted under the Promotion of Investments Act (PIA) 1986, and those that participate in the SMIDEC's Industrial Linkage Programme (ILP), the local-owned T&G companies do meet the eligibility criteria of at least 60 percent Malaysian equity.

It is irrefutable that the local-owned companies will find it difficult to embark on innovation activities due to the shortfalls mentioned earlier. In addition, government assistance and funding have been more inclined towards the electrical & electronics (E&E) and automotive related industries. As such, the foreign-owned OEMs should take the lead to improve their operations in Penang through more innovation activities. These include the adoption and implementation of e-commerce to enable the provision of better services to their customers as well as to generate higher value-added T&G products to suit the preference of today's consumers. These include 'wrinkle free' apparel to save time on ironing as well as 'anti-bacterial' apparel which allows the user to reuse the same apparel after excessive exercise and sweating, without washing it and having the feeling of discomfort and filthiness.

As for the textile companies, particularly the foreign-owned ones, they should put in efforts to conduct regular and constant R&D to develop new textile products such as better quality and durable fabric to add value to their operation as well as to prevent direct competition on cost with the lower cost countries.

*Improving Linkages*

The strategy to improve linkages is four-prong. First of all, the owners of local-owned domestic companies should discard the tradition of 'being boss' and build strategic alliances among themselves. By doing so, they could build a consortium, which allows each of them to have a niche in their own areas without competing with each other. For instance, a certain job may not be effectively and efficiently implemented by a single company but can be done by a group of companies, with each company having its own specialties and expertise. By doing so, these companies need not compete among themselves for jobs but share the job as well as produce better results for each job that they undertake. By being 'big' these companies are also equipped to compete with foreign and larger companies for jobs as well as to increase Malaysian T&G exports. Competition with foreign companies will become more apparent with the realization of AFTA and WTO as well as the phasing out of MFA.

Another means for improving linkages is to build strategic alliances with companies that are operating globally. Local-owned domestic companies should try to build alliances with export oriented companies by providing supporting and ancillary services such as sub-contracting services or supply of accessories. It is undeniable that it is difficult to establish linkages with export-oriented companies that are producing for international brandnames. However, local domestic companies could start the initiative by 'lending' their workers to the export oriented companies when these companies need additional workers. By lending their workers, the local domestic companies do not only establish linkages with the export oriented companies, but at the same time, the workers of these domestic companies also receive on-the-job training, which is considered crucial in order to meet customers requirements. Such training will help to upgrade the skills level of the workers as well as enable the transfer of technology to the domestic companies.

In addition to developing strategic alliances, T&G companies, particularly the local-owned ones could also establish joint ventures with companies that are located in lower cost countries in the region to secure cheaper raw materials and component supplies. This will not only lower the cost of operation but also improve the procurement process of the companies, allowing the implementation of just-in-time manufacturing as a result of proximity to materials and components.

In addition to setting up joint ventures for the purpose of procurement, joint ventures and subsidiaries (depending on the size of the company) could also be established in the lower cost locations in the ASEAN region to take advantage of the cost factor as well as to market the products at CEPT (Common Effective Preferential Tariff) rates, i.e. between 0% and 5% by the year 2003. This will allow the companies to gain tariff advantage against imports from non-ASEAN countries.

*Developing Design Capabilities & Niche Markets*

While it is good if Penang, Malaysia can develop more design talents, most of the Malaysian designers migrate overseas to be near the renowned world fashion markets, once they become famous. This is mainly because to develop and market a niche product, proximity to market is very important to enable close monitoring of fashion trends and to respond quickly to customer demands. T&G companies in Penang are handicapped when it comes to penetrating into the international fashion market on their own. Brandname marketing is very expensive and to date, there are still few companies in Malaysia and surrounding nations that have established their separate brand identity. As such, strategic alliances among local domestic companies as well as between local domestic companies and companies that are operating globally, are critical in generating the economies of scale for building and marketing brandname.

Nevertheless, new brandnames are increasingly being found in the local departmental stores and shopping malls as well as in neighbouring Singapore. These include brandnames that resemble European, Italian and French names that offer a host of classic and contemporary merchandise as well as fashion collection throughout the year. Brandnames like Don, La Primavera, Padini Classic, Padini Authentics, PDI, P&Co, Seed, Miki and Vincci are Malaysian fashion brandnames but have a resemblance with the international up-market fashion products.

These Malaysians brandnames are alternative products for consumers who yearn for international up-market products like Louis Vuitton, Gucci, Vogue, Guess, etc., but could not afford them. While traditional clothing and costumes no longer provide a market, local companies will have to start looking at the production of 'high value-added products' with separate brand identity as their niche activity. In addition, these 'high value-added products' can also help to increase Malaysian T&G exports value to the ASEAN region. Export values will be more crucial today rather than volume because high volume cheap garment products can be imported easily from lower cost countries like Indonesia, Thailand and China.

To build and maintain competitiveness, the companies will have to send their in-house designers overseas to attend fashion fairs in order to broaden their knowledge and to keep abreast of the latest trends. In addition, they will have to keep their costs low in order to price their products competitively. Other aspects of human resource development (other than design capacities), which have been mentioned earlier, will be required to increase productivity and to comply with the three key determinants of competitiveness, namely quality, reliability and delivery.

To complement the garment industry, the textiles companies will also have to focus on manufacturing the more exclusive products, which are smaller in quantity but higher in value. These low-volume high-value exclusive textile products will have to meet the requirements of the local up-market garment sector. As such, R&D, as mentioned earlier is crucial for the textile companies in Malaysia.

Lastly, it is also important to encourage merchandising/buying houses like JC Penney to set up operation in Penang. By doing so, local brandnames would stand a better chance of penetrating the overseas markets, where the products could be displayed at the other outlets or the websites of these merchandising houses. To attract the merchandising/buying houses, the government will have to play a role in providing adequate and quality infrastructure support like direct flights as well as better communication connectivity and e-commerce infrastructure.

*2nd Phase of Import Substitution*

The main domestic consumers of the T&G industry are the general garment industry; institutions such as hospitals (bedsheet, bedspread, pillow cases, towels), hotels (towels, bedspreads, bed linen, pillow cases), and schools (uniforms); enterprises in both public & corporate sectors (uniforms, t-shirts for special events, banners); and the household sector. Presently, numerous T&G items are being imported from Indonesia and China, for example uniforms, bedspreads, towels, etc. By strengthening the domestic T&G sector through the adoption of the recommendations discussed earlier, especially before the full liberalisation of AFTA, Penang and Malaysia could establish a 2nd phase of import substitution. This will not only reduce imports and provide a complete package of products & services for the domestic market but also develop the Penang T&G industry towards vertical integration and value adding products.

## Conclusion

The T&G industry today should not be looked upon as 'sweatshops' of yesteryears but as an important industry that contributes to the economic and social growth of Penang. The industry should see a 'phasing out' of small domestic individually managed firms and a consolidation of small firms, which enables the strengthening of the domestic sector in terms of technology, human capital, finance as well as expertise. Technology acquisition, adoption and innovation have to be the main agenda of both the foreign and local owned T&G firms in order to remain competitive. A wider use of e-commerce to enable B2B transactions as well as tracking of goods at both the factory and customers' premises will allow for more efficient and effective operations.

The development of competitive brandnames will be the ultimate aim but human resource development, improvement in infrastructure amenities as well as the change of mindset of the government as well as the community will have to precede this development. Thus, providing an avenue to develop and market a true Malaysian brand identity.

The T&G industry is not and will never be a sunset industry if the community within the industry as well as the government put in efforts to improve the image of the industry. Penang, Malaysia may not join the ranks of the world fashion markets but with technological upgrading, human resource development and government support, Penang or Malaysia may become the fashion market of Southeast Asia, catering to the less affluent (to purchase the international up-market products) but up-market consumers. Will the Penang/Malaysia T&G Industry be a Rising Star? The answer is yet to be determined. ***§ Anna Ong***

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