

4. DATA ANALYSIS

(1) BUYER POWER

Buyers exercise power in an industry primarily through their ability to bargain. Whether for lower prices (either with one firm or by playing several firms against each other as in competitive bidding), for higher quality, for more or better services, etc. As the industry buyer increase its ability in exercising it's power, industry profitability is likely to diminish. For example, the US Air Force, as the sole or on some occasions, the first buyer of a new fighter aircraft, is able to exert considerable power over the manufacturer in terms of both price and delivery.

In this study, the significant groups of buyers in the flexible packaging industry in Malaysia and their characteristics are presented below :

Buyer Groups

Characteristics

- | | |
|---------------------------|---|
| 1. MNC (American, Europe) | <ul style="list-style-type: none">. Prestige association as a recognition of quality and reliability. Price is not the only determinant of purchase. High degree of professionalism |
|---------------------------|---|

- 2. MNC (Japanese)
 - . Prestige association as a recognition of quality and reliability
 - . Effect of "Keiretsu" and inclination to Japanese manufacturer
 - . long-term business partnership
- 3. Local Buyer (Large)
 - . Purchase in big quantity
 - . Driving force in their industry and packaging trend
 - . Market share
- 4. Special Applications
(Medical, Pharmaceutical, Aggressive Chemical, etc)
 - . High premium as quality is utmost important
 - . Product Differentiation

From Appendix 1, the score of the buyer power can be summarized as follows :

<u>Groups Of Buyers</u>	<u>Score</u>	<u>Rank</u>
1. MNC (European/American)	12	2
2. MNC (Japanese)	11	3
3. Local Buyer (Large)	13	1
4. Special Application Group	7	4

This score reveal that local buyer group has the greatest market power in the flexible packaging industry. This scenario is apparent as these big local flexible packaging material users are very established by itself and consumes about 30% of the total packaging materials product in Malaysia. They are dominant supplier in their own industry , example of these buyers are Cheong Chan (Hup Kee) , (Packing for KFC and Mc Donald) , Four Season Jelly (KLSE 2nd Board) , Ngan Yin & Thong Thye (2 prominent ground nuts manufacturers) , Gold Roast , Exclusive Mark (3 in 1 Instant Coffee Mix) , Yeo Hiap Seng , Kilang Makanan Mamee and Malaya Glass.

This local buyer groups could exert their bargaining power because most of the packaging materials used are undifferentiated. Coupled with low switching cost , these buyers can actually 'shop around' for the cheapest source of supplies and therefore 'squeeze' the suppliers. As the local manufactured goods are basically aimed at middle lower income groups , when compared with products manufactured by MNCs , the profit margin of this group is relatively lower. Hence , strong pursuance for lower price is almost inevitable especially when they purchase in bulk.

As there are plenty alternative source of supply for packaging material, these buyers (inclusive of MNC (Europe/America) and MNC (Japan))

possess fairly good deal of information about the seller's business i.e. the flexible packaging material manufacturers. Thus, it is common for this local buyer group to engage a common "squeezing" technique by playing competitors against each other at the supplier expense, despite knowing well that such a move would not encourage long term partnership.

Both multinationals , European/American and Japanese based , are following very closely with the local buyers group as they do have their own district bargaining power especially in the areas of bulk purchases , strong emphasis on quality and professionalism in purchasing. These two groups in-fact , offer the most lucrative markets for most flexible packaging material manufacturers as doing it right would mean higher marginal profit , prestige association and more rewarding long-term profitability when compared to the local buyer group market.

(2) SUPPLIER POWER

We can divide the suppliers according to their country of origin and type of raw materials supplied. In flexible packaging industry, the most important raw materials are (1) Films , (2) Inks , (3) Adhesives and , (4) resins. Thus, the suppliers are grouped in the following manners ;

RAW MATERIAL	SUPPLIER GROUP	CHARACTERISTICS
1. Films	a) F (Local)	<ul style="list-style-type: none"> o Cheaper grade o Only supplied limited range of grade o Few dominant players o Involved diversified flexible packaging manufacturers
	b) F (Import)	<ul style="list-style-type: none"> o Not available locally o High quality films o Expensive but provide the required barrier - for specific requirement o Reliability of supply depends on long-term relationship
2. Inks	c) I (Local)	<ul style="list-style-type: none"> o Concentrated supply , only two dominant players o High quality and established Japanese manufacturer

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|--------------|---------------|--|
| 3. Adhesives | d) A (Import) | <ul style="list-style-type: none"> o Critical components for high performance packaging materials o Quality is the most critical factor in selection o Highly proprietary products involved a lot of know-how |
| 4. Resins | e) (Local) | <ul style="list-style-type: none"> o High volume o Reliability of supply is critical o Two dominant suppliers |
| | f) (Import) | <ul style="list-style-type: none"> o Special applications o Quality and performance far outweighed price o Concentrated supply |

From Appendix 2, the score of the supplier power can be tabulated as below ;

<u>No</u>	<u>Groups Of Supplier</u>	<u>Score</u>	<u>Rank</u>
1.	Films [F (Local)]	9	4
2.	Films [F (Import)]	8	5
3.	Inks [I (Local)]	11	2
4.	Adhesive [A (Imports)]	10	3
5.	Resins [R (Local)]	9	4
6.	Resins [R (Import)]	12	1

RESINS R (Import). This group of supplier is the strongest. In-fact, there is only one supplier of the widely used grade of low density extrusion grade polyethylene (LDPE), namely The Polyolefin (S'pore) Company Pte. Ltd or **tpc** in short. Due to its proximity to Malaysia and inability of Malaysian manufacturers to manufacture the same grade with similar quality, it actually dictate the supply of LDPE to Malaysia's Flexible Packaging converters. In summary, its power derived from its position as the only high quality LDPE resin supplier in South East Asia, in-availability of substitute LDPE resin of the same or competitive price and it is widely used.

INKS I (Local). The second most powerful group of supplier is the ink supplier. Again, these suppliers are concentrated i.e. only two big players (1) DIC (M) Sdn Bhd

(2) Toyochem Graphics Sdn Bhd. There are not much alternative substitutes except deciding who to purchase from. In-fact, each has its own speciality and is well supported technically from the headquarter in Japan. Both offer competitive and up to-date technical services. The inks are the basic components of packaging materials that require printing .

ADHESIVES A (Imports) . The key source of power is its specialty chemical which practically has no substitute. Special application include boilable pouch, high temperature and high pressure sterilization e.g. spicy oil supplements. The availability of these speciality chemical often influence the differentiation strategy adopted by flexible packaging converters. The growing potential of packaging industry in Malaysia has attracted many adhesive suppliers setting up their market branch or agency locally. However, successful development of specialized applications is not only dependent on these 'renowned' adhesive suppliers but also on individual converter's experience , its development efforts and technology ability.

FILMS F (Local) . These groups of suppliers are similar as printing inks suppliers except that there are a few more players than ink suppliers. These groups mostly comprises local entrepreneurs and the main contributory

factor for their source of power is the buoyant economy. Competition among these suppliers is quite intense but due to the huge demand, they could afford to exercise their power onto flexible packaging converters. This is because the films supplied locally are used widely in many application ranging from food to non-food. The typical type of films are LLDPE (Linear Low Density Polyethylene), OPP (Oriental Polypropylene) and CPP (Cast Polypropylene). As these suppliers are local investors, the threat of "Forward Integration" further increases its power as supplier. With favorable government supports and incentive to substitute imports of specialty packaging materials, the source of power for these suppliers are ever increasing.

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RESINS R (Local) . Their power were essentially originated from government protection. The most controversial one involve Titan-Himont Company who is empowered to issue NOL (No-Objection Letter) before any issuance of AP (Approved Permits). Obviously, this is something basic to attract foreigners especially when such an industry entails investment of billions.

FILMS F (Import) . This is the least powerful among the groups of suppliers analyzed. But, their importance cannot be taken for granted in view of in-availability of substitution and specialty know-how. The quality is the key

and this was the dominant factor that make Japanese suppliers the major importers to many converters. These films are very important to converters who's business's focus is at high end. For example, shampoo, sachets, chilli and tomato sauces, spicy food, pharmaceutical, medical and high quality branded goods.

(3) BARRIERS TO ENTRY

Appendix 3 refers. As we can see the major barriers to entry in this flexible packaging industry , in sequence of importance are ;

1. Capital requirements
2. Availability of skill personnel , proprietary knowledge and technology
3. Economies of scale
4. Strategic geographical location
5. Government policy

Capital Requirements. The huge amount of financial resources required to acquire the production machineries certainly create a barrier to entry. This further aggravated with increasing pressure on quality requirement , rendered investment in up to-date laboratories facilities inevitable. This though , do not hinder major corporations like Hong

Leong Group , enter into this industry. With supplier possess great power , the pressure to keep safe level of stock become necessary. Adequate warehousing facilities added burden to the firms in the industry , particularly when special warehouse for chemicals and inflammable solvents are mandatory under the Factory And Machineries Department Requirement and recently regulated OSHA (Occupation Safety and Health Act) 1994.

A typical flexible packaging factory machineries and costs based on Japanese machineries without special features are as below ;

<u>Machineries</u>	<u>Costs (RM'000) per unit</u>
1. Rotogravure Printing Press	6,000
2. Single Extrusion Laminator	4,500
3. Dry Laminator	5,000
4. Slitting Machine	450
5. Bag Making Machine	500

Availability of skill personnel , proprietary knowledge and technology. When one interview Chief Executive Officer (CEO) of any successful corporation , he/she often cites human as the most important asset of the company in out-compete the competitors. This is also a critical issue in the flexible packaging industry. The following table would assist the understanding of this factor ;

Table 4. Geographical and Technical Alliances of Converter in Malaysia.

Firms	Year Established	Geographical Location	Technical Alliances/ Collaborations
1.Advance Packaging (APT)	1982	Bangi, Selangor	None
2.Daibochi	1972	Malacca	None
3.MPI	*1973	Shah Alam, Selangor	Packaging Research Centre. Subsidiary of Hong Leong Group
4.Malaysia Packaging	1975	Kuala Lumpur	Japanese Packaging Converters
5.Tomypack	1979	Johor Bahru	None

Note : * Diversified into flexible packaging in 1993.

The skill labour demand was intensified in earlier 1993 when MPI ventured into the flexible packaging industry. The tussle for skilled labours since then has increased when firms in the commercial centres , namely APT , MPI and Malaysia Packaging experiencing growth and expansion in tandem with buoyant Malaysia economy. Certainly , increases in Foreign Direct Investment over the last few years has worsen the situation but fortunately , the effect is

limited to operators level only. The supply of skilled labour is scarce as the industry , despite having the latest technologies from advance countries such as Japan and Germany , still very much depend on skilled labour to operate the machines . Those having collaborations or alliances with established experts surely has an upper hand in the high end applications. This is more for long-term growth as the major packaging needs in Malaysia is still centralized at basic packaging.

Economies Of Scale. With such a high investment in the machineries , coupled with high set-up costs , the lowest cost per unit is a critical consideration and often threaten the entry of small investors. For example , to print an eight colours Maggi noodle wrapper require a state of art and precision printing press which cost millions. Only continue long-term business in a big volume would justify such an investment.

Strategic Geographical Location. Location or place is one of the 4Ps in marketing mix. In flexible packaging industry , it too plays a critical role in creating barrier to entry. Located in strategic geographical location giving firms advantage especially in areas such as services , reliable delivery , adequate facilities e.g. ports and accessibility , administrative efficiency and proximity to

customers or potential customers. As we can see from Table 4., locating at the commercial centre of Malaysia certainly enhance the competitiveness of companies like APT , MPI and Malaysia Packaging. Their presence would certainly create a barrier to entry in these areas as all these three firms are prominent players.

Government Policy. Government policy regulating the environmental requirements have indirectly create a barrier to entry in this industry. The requirement of having water and waste treatment plant has added burden to the industry players over the last two years. This is because of the raw materials used in the industry are toxic in nature and having detrimental effects to the environment. The food packaging regulations would also expected to be revised and many believe the government would tighten the hygiene requirement of packaging wrapper in ensuring a healthier Malaysian lifestyle and a more social-responsible manufacturer.

(4) THREAT OF SUBSTITUTION

In flexible packaging industry , the manufacturers who supply the packaging materials are essentially providing one or more services for its clients. This is regardless of the type of packaging composition one gives to its customers as these wrappers in one way or another fall into one of the following services categories. (Refer Appendix 4).

1. PROTECTION. This is the basic function that any packaging material serves. It protects the contents from oxygen , moisture , ultra-violet rays , insects , etc , depending on the critical requirements. This function is essentially aimed at keeping the contents unchanged when exposed to anticipated environment. As we can see from Appendix 4 , glass and aluminium or tin can are capable of substituting this packaging function. However, looking at the current development and packaging trends of developed countries , the substitution with glass or cans are less likely than multi-layer barrier film or co-extruded plastic films. Source reduction and cost effective inclinations would entail substitution of one plastic film with another

2. LESS WEIGHT / BULKINESS. Flexible packaging can be claimed to be the lightest weight packaging materials , providing high barrier protection and excellent sales presentation (1). Because it is light , it also serves to reduce municipal waste thus help to

(1) Abd Shukor Abd Rahman & Hasnah Midon (1994)

alleviate environment hazard. Of course , there is a growing concern regarding the disposal of packaging materials on the safety of the environment. The possible substitution can be in the forms of aluminium / tin cans. The increase in usage of aluminium containers in the food industry is mainly attributed to price competitiveness , provide adequate protection to food products and the ability to recycle efficiently and economically.

3. PRODUCT APPEAL / PRESENTATION. Food packers have changed quite considerably from a medium for protecting the food from quality deterioration to a medium for promotion and sales. This apply to non-food packages as well , particularly the disposable types. In most cases , packaging materials also serve as the medium for corporate identification. It is highly evident in the current trend where emphasis is given to package design , color and labelling. Paper boards are potential substitutes due to its environmental acceptability and its comparatively low cost. Halographic films , though expensive , may be useful substitutes for high end consumer products.

4. VARIOUS SIZES AT LOW COST. Packaging in various sizes is regarded as the important 5Ps in marketing mix. It may work out to be cheaper by packaging for

a single used , e.g. chili sauce sachet at fast food store and shampoo sachet for one time usage in hotel. Plastic containers are widely used for beverages , food and pharmaceuticals but is limited in shape and lack of flexibility compared to flexible plastic packaging materials especially for small purchase.

(5) COMPETITIVE RIVALRY AMONG FIRMS

Appendix 5 reveals that flexible packaging industry is indeed intensely competitive. The rivalry exists as the firms compete on price because majority of the products are not differentiated and high fixed costs in the industry , market share in view of they are equal size and strength even though the growth of the industry is good , and service as the switching cost from one firm to another is low.

The intensity of the rivalry exists among competitors originated from the following sources of competition ;

- i) There are five notable players , of equal size and resources in the industry. Whatever actions taken by an individual firm in the industry would likely to stimulate retaliation from other firms.
- ii) The sales of the firms in the industry are relative balanced.

- iii) High fixed costs thus firms tend to cut price in order to cover the variable costs.
- iv) Very little or no switching costs from one firm to another , though this cost tend to be higher in the high-end applications.
- v) Little or no product differentiation strategies / approaches to the market. Competitors' strategies are difficult to predict as all are clamoring for sales in order to out-compete others. The high strategic stakes in the industry does not help but further aggravates the situation.
- vi) High exit barrier in view that the assets are highly specialized.