

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT (Cont'd)

F R O S T & S U L L I V A N

Key Industry Drivers

Figure 5: Market Drivers Ranked in Order of Impact, 2004-2008

| Rank | Market Driver | Short-Term Impact | Medium-Term Impact |
|------|---|-------------------|--------------------|
| | | 2005-2006 | 2007-2009 |
| 1. | Demand for metal stamping parts and components in the electronics and automotive industries | Medium | High |
| 2. | Shorter product life cycle leading to higher replacement cycle | Medium | High |
| 3. | Overheated economy in PRC | Low | Medium |
| 4. | Influx/Migration of OEMs manufacturing into the Malaysian economy | Low | Medium |
| 5. | Foreign Direct Investment | Low | Low |

Source: Frost & Sullivan, 2004

Increase in Demand for Manufactured Electronics and Automotive Goods

The demand for consumer electronics goods is expected to increase in tandem with the expansion of the global electronics industry. Recent turnarounds in global demand for consumer electronics goods and automotive parts/components have been encouraging. Heightened demand for consumer electronics coupled with the recent market liberalisation of the domestic automobile industry under AFTA, are expected to boost demand for metal stamped parts and components. This is expected to have a medium to high impact for the forecast period.

Shorter Product Life Cycle Leading to Higher Replacement Cycle

Product life cycles of consumer electronics, computer and computer peripherals are generally getting shorter due to rapid development in technology and first-to-market concept through aggressive product marketing. Shorter product life cycle indicates that companies must constantly develop new products in order to sustain market share or dominance. This is expected to have a medium to high impact during the forecast period.

Overheated Economy in the PRC

PRC has been experiencing accelerated growth since obtaining its WTO status. Following PRC's market liberalisation efforts, manufacturers and OEMs sought to take advantage of lower operational costs and inevitably resulted in the migration of skills and manufacturing operations. Nevertheless, since the day the PRC economy had been overheated, some of the OEMs have shifted their operations to neighbouring countries in Asia. This is expected to have a low to medium impact during the forecast period.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT (Cont'd)

F R O S T & S U L L I V A N

Influx/Migration of OEMs manufacturing into the Malaysian Economy

Despite the PRC's overheated economy, the low-cost environment serves the OEMs well and most retain their operations in PRC for the same reason. However, further overheating and security (especially patent protection) concerns may drive multi-national OEMs to neighbouring ASEAN countries, such as Malaysia. This will create job opportunities in Malaysia as opportunities are spilled-over to the manufacturing industry and supporting industries. This is expected to have a low impact in the short term to medium impact in the medium term for the metal stamping industry.

Foreign Direct Investment ("FDI")

The presence of FDI would definitely help to boost the Malaysian economy. With increase transparency in the new leadership and good corporate governance in Malaysia, more FDI will be expected to flow in. Moreover, the overheated economy in the PRC has driven some of the OEMs to explore neighbouring ASEAN countries like Malaysia to establish their investments. Increased FDIs will create more opportunities for the local metal stamping industry and amplify benefits of the transfer of skills and technologies to the local one-stop metal stamping solution providers. The impact is expected to be low for the forecast period as in-flux of FDI is expected to be moderate or sluggish due to cautious investor sentiments. This is expected to have a low impact for the forecast period.

| |
|--|
| THE REST OF THIS PAGE IS INTENTIONALLY LEFT BLANK |
|--|

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT (Cont'd)

F R O S T & S U L L I V A N

Key Industry Restraints

Figure 6: Market Restraints Ranked in Order of Impact, 2004-2008

| Rank | Market Restraints | Short-Term Impact | Medium-Term Impact |
|------|---|-------------------|--------------------|
| | | 2005-2006 | 2007-2009 |
| 1. | Global economic slowdown | Medium | High |
| 2. | Lack of skilled workers | Medium | High |
| 3. | Cost competition from the PRC market | Medium | High |
| 4. | Out flux/Migration of OEMs manufacturing out of the Malaysian economy | Low | Medium |

Source: Frost & Sullivan, 2004

Global Economic Slowdown

Any slowdown in global economy will inevitably affect the balance of demand and supply of regional economies. Consumption and demand for manufactured goods will decline, followed by lower outputs in the global manufacturing industry. The result will lower international import and export activities. Nevertheless, this restraint will affect all industries in the global market. The impact is expected to remain medium to high during the forecast period.

Lack of Skilled Workers

Most of the skills and expertise required for the metal stamping industry are very much dependent on learning while on the job or through hands-on experience. This is especially true for the designing, prototyping and fabrication of metal moulds. The skill sets, ranging from the handling of the modern machineries to the programming of these machineries, require a time period ranging from 4 to 5 years to fully develop. However, this restraint can be minimised by providing constant in-house training for the workers as well as invite industrial experts to share their knowledge with these workers. The lack of skilled workers can be further supplemented by importing skilled workers from neighbouring countries. The impact of this restraint is expected to have a medium to high impact for the forecast period.

Cost Competition from the PRC Market

As the cost of manufacturing rise in tandem with the higher development in Malaysia, the metal stamping companies might experience cost competition from the competitors in the PRC. However, we expect this impact to only affect the low-level or low-precision metal stamping operations. One-stop metal stamping solution providers in Malaysia involved in low volume high precision metal stamping operations are less likely to be affected by this factor. Hence, the impact of this restraint is expected to have medium to high impact for the forecast period.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT (Cont'd)

F R O S T & S U L L I V A N

Out flux/Migration of the OEMs out of the Malaysian Economy

Despite the PRC's overheated economy, the low-cost environment serves the OEMs well and most retain their operations in the PRC for the same reason. Developing nations in the ASEAN region may experience loss of opportunities with the migration and/or retention of OEMs in the PRC. Further, this will also have an adverse impact on the influx of FDIs into Malaysia. This is expected to have a low to medium impact for the forecast period.

Barriers to Entry and Exit

Figure 7: Barriers to Entry and Exit Ranked in Order of Impact, 2004-2008

| Rank | Barriers | Short-Term Impact | Medium-Term Impact |
|------|------------------------------|-------------------|--------------------|
| | | 2005-2006 | 2007-2009 |
| 1. | Capital | High | High |
| 2. | Industry Expertise and Skill | High | High |
| 3. | Established Track Record | High | High |
| 4. | Business Networking | High | High |
| 5. | Pioneering Advantage | High | High |
| 6. | Profit Margin | Medium | High |

Source: Frost & Sullivan, 2004

Capital

High capital outlay will be required to operate as a competitive one-stop metal stamping solution provider in an established industry. Capital outlays are channelled to setting up costs, machineries purchases, manufacturing facilities and even skilled-labour costs. This high capital can hinder potential new entrants as they are limited by resource constraints. This poses a high barrier to entry in the short to medium term.

Industry Expertise and Skill

It is relatively important to have the industry experience, expertise and skill set. To be able to capitalise and realise this, there is a need for a highly skilled and experienced workforce. An apprentice machinist takes an average time of between 4 to 5 years to acquire supervisory level skills. During this period, they are exposed to various machine centres, progressing from conventional machining to CNC machining and then improving their fabrication ability from single process die to complex progressive die. Hence, the potential new entrants might find it very difficult to cope with the long learning process and also the costs involved in acquiring industry skills and expertise, especially with profit margin pressures. This poses a high barrier to entry in the short to medium term.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT *(Cont'd)*

F R O S T & S U L L I V A N

Established Track Record

OEMs are more likely to turn to one-stop metal stamping solution providers with an established working knowledge and reputation in the industry. Not only are the OEMs familiar with the reliability record and product quality of the metal stamping operators, but also avoid high switching costs and long gestation period for switching. This poses a high barrier to entry in both the short and medium term.

Business Networking

Building a viable and strong business network is not an easy task for new entrants as relationships need time to be established. Once trust and confidence are well-established, it would be difficult to break-up the partnership. The trust and confidence factor is vital for the OEMs due to the time criticality of manufacturing operations. New entrants in the industry may find it very difficult to penetrate such established relationships as much as any effort to gain their trust and confidence. This can affect market penetration and as such poses a high entry barrier in the short and medium term.

Pioneering Advantage

Pioneering efforts to break into new areas of business opportunities is a deterrent to new entrants, who may not have the similar established set-up, experience, and resources to sustain the initial costs and venture. Again, being a pioneer helps in establishing business relationships early, and will prove to be almost impossible to penetrate by the new entrants. The combination of high switching costs and rigid production audit involved when switching metal stamping operators is a strong deterrent for new entrants. Barrier of entry is expected to be high for both the short and medium term.

Profit Margin

The metal stamping industry is operating on a tight profit margin because of the increasing price trend of metal. Furthermore, as the consumer market is getting more competitive, this has led to higher turnover of new models launched. Hence, OEMs will try to purchase metal stamped parts and components at a lower price so that they can recover their initial investment on those fast turnover new models and by doing so, they will ultimately squeeze the profit margin of the metal stamping players. New entrants will not be able to sustain continuous period of price pressure. This is expected to pose a medium barrier to entry in the short term and high barrier to entry in the medium term.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT *(Cont'd)*

F R O S T  S U L L I V A N

Entry of New Players

The metal stamping industry in Malaysia is an established industry that has evolved over the years to enhance its value chain to support the manufacturing industry in Malaysia. Established players with invaluable experience, industry expertise and skill sets will pose as the main threat to the entry of new players into the industry. The evolution of established metal stamping companies from the traditional offerings of a single metal stamping operation to a one-stop metal stamping solution provider meant that the entry for new players is even more demanding given the high barriers to entry. Track record and high capital outlay add to the barrier of new entrants.

Technology Advancement

As the world advances with more innovative and sophisticated technological advancements, training has become an essential requirement to remain competitive. Moreover, with the rapid growth and wide applications of Information Technology, employee's skills in multi-tasking, productivity and efficiency are very important as this gives the company a competitive edge over the other market players.

One-stop metal stamping solution providers will need to constantly improve and enhance their metal stamping operations in line with technological advancement. This is important for them to remain competitive through cost effectiveness and product/service range expansion. Possessing such development will position the players above the rest and provide them with a competitive edge. These developments are magnified by the accelerated developments experienced by the various manufacturing industries, especially electronics and automotive industries which are the key drivers for the metal stamping industry.

Developments in technology will ensure cost effectiveness for both the one-stop metal stamping solution providers as well as the OEMs, especially those who adopt Just-In-Time ("JIT") manufacturing concepts. Technological advancements will also improve product range, such as precision metal stamping for the higher end market. These higher end products require high-quality and high-precision stamping moulds which can be achieved through innovation in technological advancement.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT *(Cont'd)*

F R O S T & S U L L I V A N

Government Directions, Regulations, Policies and Incentives

The metal stamping industry plays an important role in supporting the growth and development of the manufacturing industry in Malaysia, particularly the consumer electronics and automotive industries by supplying the necessary metal stamped parts required for mass production. The Malaysian Government's plans and efforts to place Malaysia in the global map as one of the leading global manufacturers can only materialise with strong foundation from the supporting industries.

Future prospects for the metal stamping industry in Malaysia is encouraging as the Government has, under the 8MP, placed continuous emphasis on the development of the supporting roles and utilities to facilitate the growth of other industries, particularly the manufacturing industry. This growth would contribute approximately 32% to the share of GDP by 2005, based on the 2004/2005 Economic Report. The main contributor to this growth would come from the electronics industry and this industry will continue to be the major contributor to Malaysia's export. Further, the automotive industry in Malaysia is also expanding fast – to experience double-digit growth in vehicle sales unit year-on-year of approximately 23%. This is in line with the Government's plans and efforts to develop the local supporting industry and encourage local consumption and manufacturing of parts and components. The evolution of the metal stamping industry, both domestically and globally, into one-stop metal stamping solution providers has elevated the industry into a new level of value-chain and sparked a new level of competitiveness amongst players (as well as barriers of entry) in the industry.

The Government has also promoted FDI into the supporting industries through tax incentive promotions. The tax incentives are given by ways of Pioneer Status and Investment Tax Allowance ("ITA") to the following sub-sectors and products by MITI for the promotion of FDIs. Eligible new projects in the metal stamping industry include:

- Manufacturing of machinery and components thereof
- Manufacturing of transport equipment, and components and accessories thereof
- Supporting industries and products thereof
- Manufacturing of electrical and electronics equipment, and parts and components thereof

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT *(Cont'd)*

F R O S T & S U L L I V A N

Furthermore, in the 2005 Budget Proposals, companies which had previously claimed Pioneer Status and ITA are allowed to make a second round claim if they relocate their manufacturing activities to the promoted areas. The Government announced that the allocation of an estimated RM2.5billion for East Coast Peninsular Malaysia and RM3.8billion for Sabah and Sarawak for the development of the manufacturing industry. Hence, this incentive is expected to spur existing and new investors to this industry.

Conclusion

The provision of alternative or other metal forming services as a one-stop metal stamping solution provider is a challenging but an important one. These providers offer customers or OEMs a wider range of metal forming services – and hence, are expected to gain market share in the metal forming market. Kris Components Bhd and BSL Corporation Bhd are the only two companies we identified based on available information in the industry as one-stop metal stamping solution providers with PCB assembly and hot forging as complimentary value-added services.

Moving forward, the economic recovery and growth in both the electronics industry provide encouraging prospects ahead for the metal stamping industry (and demand for PCB) in Malaysia. The expected growth in the automotive industry is also expected to boost the demand for hot forging parts and components. All these factors are expected to favor one-stop metal stamping solution providers with both PCB assembly and hot forging services as complimentary value-added services.

12. SUMMARY OF INDEPENDENT MARKET RESEARCH CONSULTANT REPORT (Cont'd)

F R O S T & S U L L I V A N

5. Economic Prospects and Outlook

The Malaysian economy is expected to moderate and improve in 2005. The general global economic recovery is expected to boost external demand and business for the local manufacturing industry. Under the 2004/2005 Economic Report, the manufacturing industry would contribute 31.8% in 2004 and is forecast to contribute 32.3% in 2005 to the share of GDP. The optimistic outlook is driven by the gradual improvement in the global electrical & electronics industry in other key export markets, such as Japan, the PRC, the US and Europe.

The development of the metal stamping industry is largely dependent on the development of the global electrical & electronic while the development of the hot forging industry is largely influenced by the development of the automotive industries. These industries form the biggest customer base for the metal stamping and hot forging industries. Hence, their growth would stimulate the demand for metal stamped and forged parts and components which are needed for the manufacturing of electrical and electronic products and automotive parts.

Future prospects for the metal stamping industry in Malaysia is encouraging as the Government has, under the 8MP, placed continuous emphasis on the development of the supporting roles and utilities to facilitate the growth of other industries, particularly the manufacturing industry. Furthermore, in the 2005 Budget Proposals, the Government has also promoted FDI into the supporting industries through tax incentive promotions, such as Pioneer Status and Investment Tax Allowance (“ITA”) and companies which had previously claimed these tax allowances are allowed to make a second round claim if they relocate their manufacturing activities to the promoted areas.

One-stop metal stamping solution providers will need to constantly improve and enhance their metal stamping operations in line with technological advancement. This is important for them to remain competitive through cost effectiveness and product/service range expansion, and the developments in technology will help to ensure cost effectiveness for both the one-stop metal stamping solution providers as well as the OEMs. Technological advancements will also improve product range, such as precision metal stamping for the higher end market.

Developments over the years indicated that the metal stamping industry in Malaysia has gradually evolved from the traditional single metal stamping operations to an integrated “One-Stop Metal Stamping Solution Providers”. With world economic growth expected to strengthen further in 2005, the outlook for the metal stamping and hot forging industries look encouraging. There will be increased demand for metal stamped and forged parts and components as they are one of the main suppliers to the electrical & electronic and automotive industries.