

Secret to Success: Securing Petronas Vendor Development Program (VDP)

M.S.M. Sani¹, S. N. Zahari¹, N.I.M. Azmi¹ and S. Musa²

¹Faculty of Mechanical Engineering, University Malaysia Pahang, 26600 Pekan, Pahang.

²FM Plastic Industries Sdn. Bhd., Lot PT 10014, Kawasan Perindustrian Jakar 3,
24000 Kemaman, Terengganu Darul Iman.

mshahrir@ump.edu.my

Abstract

Small and Medium Industries (SMIs) consist of companies or enterprise that supply manufacturing services with sales turnover less than RM25 million individual annually and employed not exceeding 150 full time workers. FM Plastics Industries Sdn. Bhd. is one of the SMIs companies that owned by 100% bumiputera with capacities of 15 employees that supply Tubular Tubing Rolls. FM Plastic Industries Sdn. Bhd. managed to secure and officially be appointed as a vendor for PETRONAS under the Vendor Development Programme (VDP) by supplying Polyethylene heavy duty bagging rolls to Polyethene Malaysia Sdn. Bhd. (PEMSB) known as subsidiary company for PETRONAS. Many initiatives have been taken by FM Plastic Industries in order to fulfil the requirement as PETRONAS vendor including to implement the requirement of quality management system ISO9001:2008 towards developing a sound quality management. The high quality of their product also being the core to secure the vendor because their product will be through seven types of testing before being supply; physical test, thickness test, dart impact test, sealing test, friction test, composition and analyzer test and drop test. Continuous improvement provides by the company also being play a vital role to

secure the vendor. FM Plastic Industries joined together with Universiti Malaysia Pahang in Knowledge Transfer Programme under the project of Control System Technology Transfer, Design of Plastic Printing and Engineering Management in Industrial Management is an initiative to improve the quality of their product lead to build confidence and expectation for PETRONAS to appoint the company as a vendor.

Keywords small and medium industries (SMIs), tubular tubing rolls, vendor, product quality and knowledge transfer programme.

1. Introduction

Small and medium enterprises (SMEs) play an important role in the development of the Malaysian economy even though its contribution to national economy is relatively small. SMEs are an important traders and service providers to primary industries. SMEs can be categorized into three groups: (i) microenterprise, (ii) small enterprise and (iii) medium enterprise. The categories are based on the number of employees and sales turnover. Table 1 will provide the details of definition of SMEs in Malaysia that proposed by SMIDEC.

Table 1: Definition of SMEs in Malaysia (SMIDEC, 2002)

| Category | Microenterprise | Small Enterprises | Medium Enterprises |
|--|--|--|---|
| Manufacturing, Manufacturing related services and Agro-based Industries | Sales turnover of less than RM250,000 or full time employees less than 5 | Sales turnover of between RM250,000 and RM10 million or full time employees between 5 to 50. | Sales turnover of between RM10 million and RM25 million or full time employees between 51 to 150. |
| Services, Primary Agriculture and Information and communication Technology (ICT) | Sales turnover of less than RM200,000 or full time employees less than 5 | Sales turnover of between RM200,000 and RM1 million or full time employees between 5 to 19. | Sales turnover of between RM1 million and RM5 million or full time employees between 20 to 50. |

These SMEs contribute to the growth of manufacturing, services and agriculture sectors as well as ICT services in terms of output, value added, employment and exports (SME Annual Report, 2006). However, SMEs still faces a lot of challenges and obstacles that hold them from further expanding their business. Small and Medium Industries Development Countries SMIDEC (2002); now known as Small and Medium Corporation Malaysia (SME Corp. Malaysia) and Ting (2004) provided the challenges faced by Malaysian SMEs as follows: human resource constraints, shortage of information on customers and potential markets, lack of access to finance, global competition and limited or inability to adopt the challenges faced are highly related to the development stage of the companies.

This paper will provide the information and behind the success story on FM Plastic Industries Sdn. Bhd. that categorized as small enterprise that managed to secure and officially be appointed as a vendor for PETRONAS under the Vendor Development Programme (VDP) by supplying Polyethylene heavy duty bagging rolls to Polyethylene Malaysia Sdn. Bhd. (PEMSB) known as subsidiary company for PETRONAS .

2. Background of Company

FM Plastic Industries Sdn. Bhd. (FMPI) was established on 08th August 1995 and started operating on December 1996. This company located at Jakar Industrial Park (III) in Kemaman, Terengganu. FMPI is the only Tubular Tubing Rolls producer in East Coast Malaysia and become one of the main supplier of Tubular Tubing Rolls in Malaysia. This company officially appointed as a vendor for PETRONAS under the Vendor Development Programme (VDP) by supplying Polyethylene heavy duty bagging rolls to Polyethylene Malaysia Sdn. Bhd. (PEMSB) known as subsidiary company for PETRONAS. FMPI's organization structure consists of Dato' Haji Sharifuddin Dato Haji Musa as the managing director together with three head department; senior manager, business development manager and general manager. These managers will supervised quality assurance and control, finance and administration and production department. The details of organization's structure will be illustrated in Figure 1.

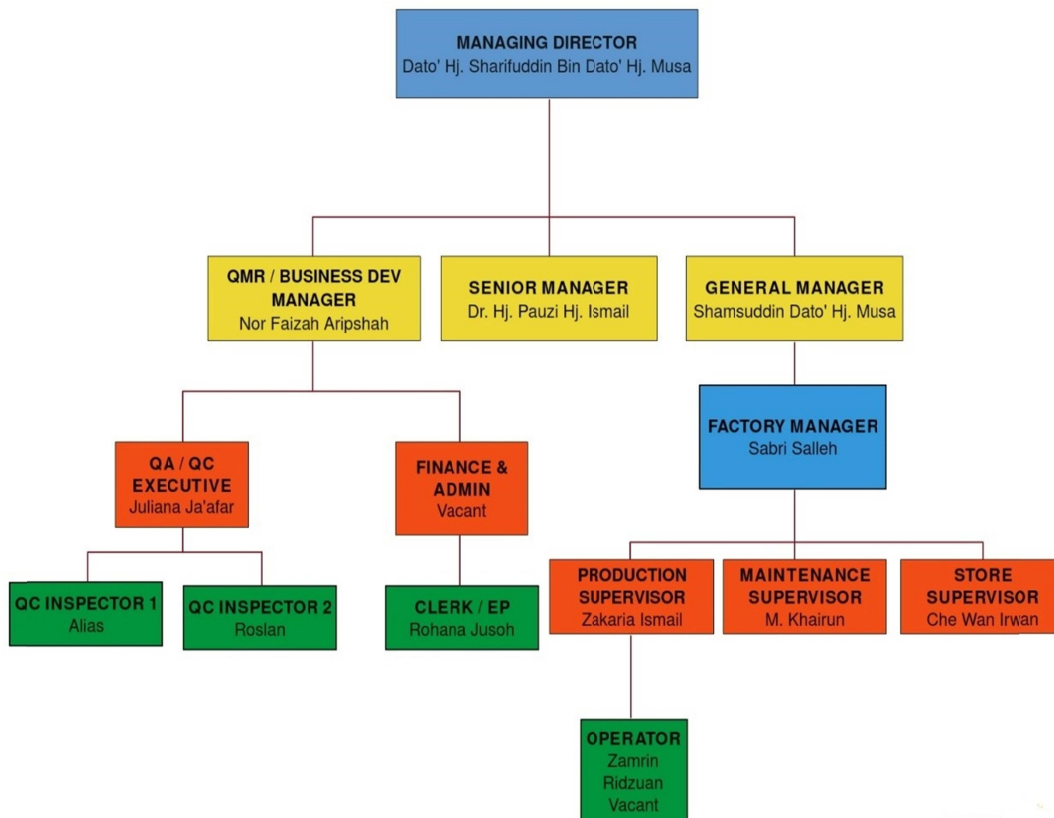


Figure 1. Organizational Chart of FMPI

Professional management structures must be skillful and efficient enough in order to be able explore the global markets, understand the competitive landscape and have clear focus on what their customers need and how their product satisfy them (Fong, 1999). FMPI's top management fulfill the requirement stated by SMEs. Presently, global business managers must possess ability to predict and interpret the complex and dynamic environmental changes. They have to develop and integrate the multiple strategic capabilities in order to deliver results on a worldwide basis. This situation can be overcome by hiring managers who are knowledgeable and able to response to the major new global challenges that the company faces (David, 2005).

In February 2008, FMPI has took over half of the production process from Mubiplas Industries Sdn. Bhd. (MPI) and expands the production scope to 'Production and Packaging Product Manufacturing from Plastic Materials'. The processes included in this scope are injection moulding, blow moulding and silkscreen. Then in April 2011, the new scope been handed over back to MPI in order to fully concentrate on Tubular Tubing Operation. Currently, FMPI had 15 workers altogether.

3. Company's Product

The tubular tubing rolls used in industry as packaging materials for chemicals that are usually in powder or granular form (pellets). In this company's cases, the tubular tubing rolls used to wrap resin. The product is supplied in large rolls with dimension (normal diameter: ~1.4 metres and length: ~2400metres). This product suitable to use for tough work environments; repeated handling, do not break if dropped from high level, neat arrangements including use of warehouse space and transportation optimization. Figure 2 (a) & (b) below show the sample of product's company.

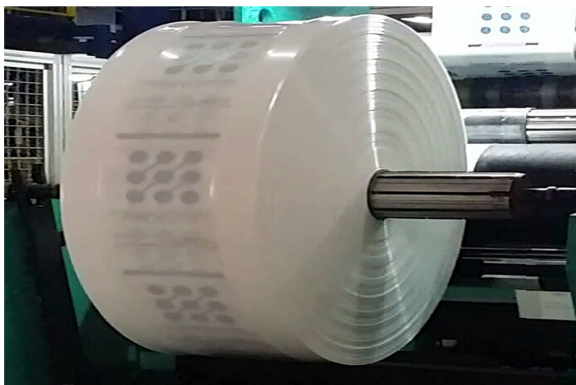


Figure 2 (a). Product Sample (roll)



Figure 2 (b): Product Sample (sheet)

4. Factors for Success

There are several reasons contributed for FMPI's success in securing the vendor from PETRONAS. The main factors can be illustrated in Figure 3 below. First and foremost, the company was implementing the requirement of quality management system ISO9001:2008 towards developing a sound quality management. Concept of KAIZEN had been demonstrated actively by the company. KAIZEN is coming from Japanese words 'kai' and 'zen' which means 'to break apart' and 'to improve upon the existing situation. This term has been explained by Imai (Imai, 1986) as an umbrella concept covering most of worldwide uniquely Japanese practices as shown in Figure 4. In addition, rapid-development on external environment urges most companies to re-evaluate their strategic posture and competitive capabilities. These new tasks put pressure on existing organizational structures and management processes (Tan, 2008). The top management of the company is giving a hundred percent commitment in the development and implementation of Quality Management System and they will strive together to continuously improve its effectiveness. Their commitment are expressed as follows; (i) the communication among departments within the company in order to remind each other that the importance of the company to meet customer needs and comply with the requirements of the regulations, requirements and regulations set by authorities, (ii) establishing a Quality Policy and Objectives of the company and (iii) management review meeting. FMPI aims to become customer-oriented company and as stated by their top management;

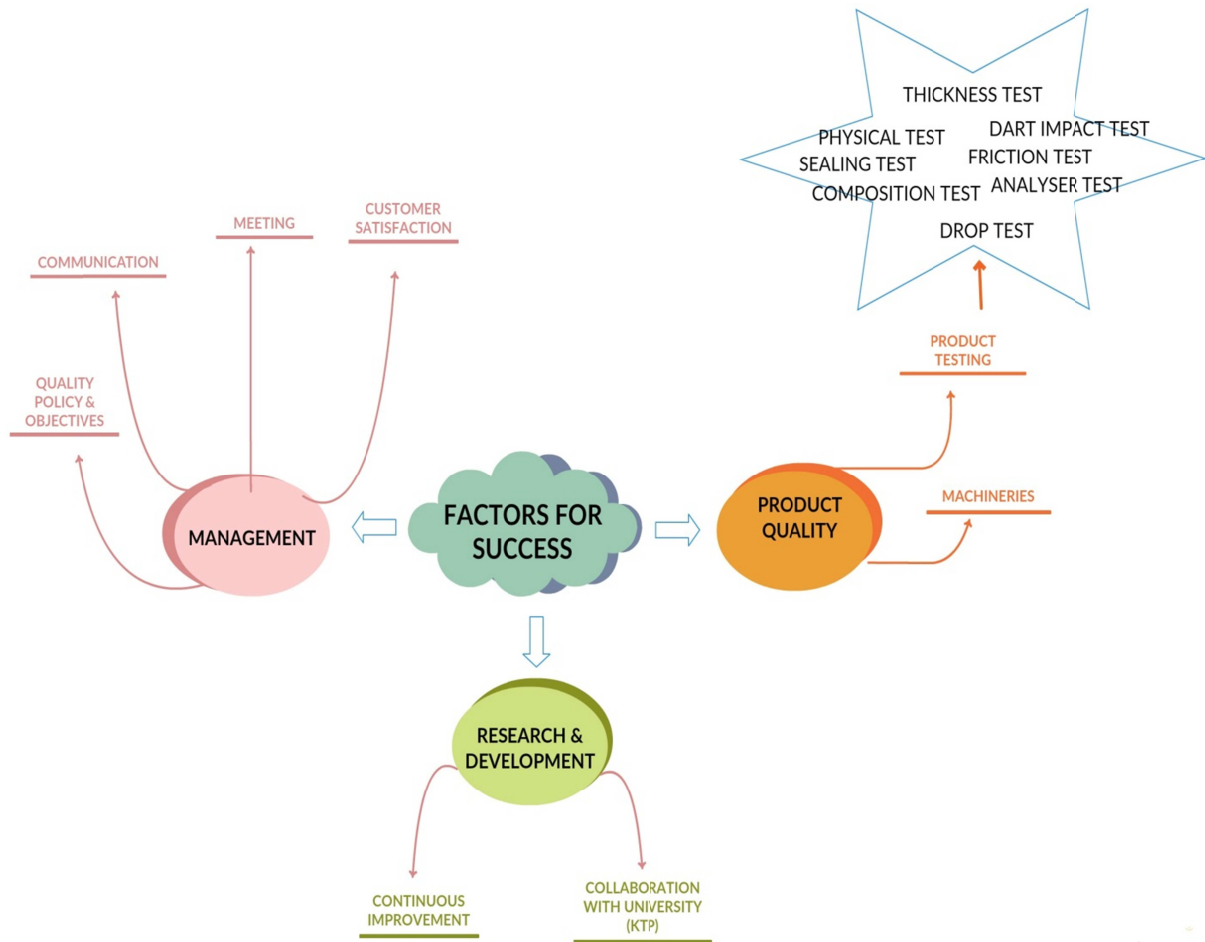


Figure 3. Factors for Success

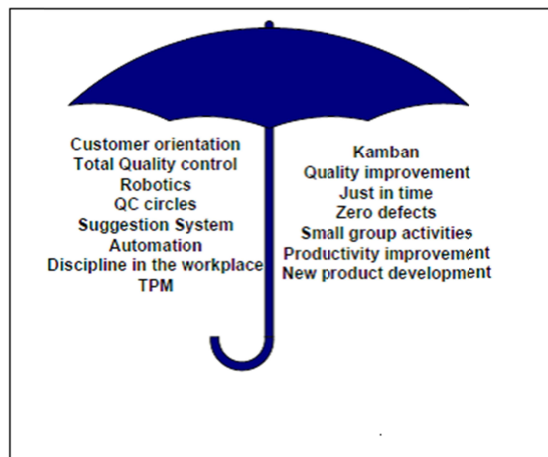


Figure 4. Umbrella Concept (Imai, 1986)

“We will always ensure that to provide only high quality and service that meets customer’s requirement without neglecting the safety and sensitivity of company’s employees.”

Dato’ Hj. Sharifuddin b. Dato’ Hj. Musa
Managing Director
FM Plastic Industries Sdn. Bhd.

This strategies also implemented to deploy relation marketing strategies. By fulfil customer satisfaction, FMPI will be able to build customer loyalty and in turn reduce the cost of operations because it is far cheaper to serve an existing customer than to attract and serve a new one (Reicheld, 1993; Ndubisi, 2003).

The high quality of their product also being the core to secure the vendor because their product will be through seven types of testing before being supply; physical test, thickness test, dart impact test, sealing test, friction test, composition and analyzer test and drop test. Physical test, thickness test, dart impact test, composition and analyzer test are the test that need to follow the requirement stated by customer itself. Figure 5 (a) represent the physical test which is to measure physical specification of the product such as bag’s width, gusset’s width and etc. This test to ensure all the product having a same standard as the specification. Figure 5 (b) shows on thickness test that being implement to measure the thickness of plastic bag using thickness measuring unit. Next, Figure 5 (c) illustrated dart impact test using dart impact measuring unit. This test follow the ASTM D1709, ISO7765 (Kissin, 2008) and the purpose of this test is to evaluate the impact strength or toughness of a plastic bag. Sealing test is an in-house testing to gauge the packaging processes ability to produce consistent seal illustrated in Figure 5 (d). In order to measure the coefficient of friction (COF) developed between polyethylene and adjacent hard surface (Peacock, 2000), friction test had been carried out following standard ASTM D1894 as shown in Figure 5 (e). In addition, Figure 5 (f) and Figure 5 (g) displaying composition and analyzer test and drop test respectively. Composition and analyzer test employed to analyze percentage data composition of LDPE and LLDPE meanwhile drop test been executed to assess the durability of the bag plastic when being thrown from a certain height.

All of their product will go through these testing in order to maintain their high quality of product. This testing also to make sure there is no defect product will be supplied to customer. Through these regular testing of the products in the manufacturing process and maintaining the strictest quality control, FMPI guarantees product satisfaction and consistent quality at all times.



Figure 5 (a). Physical Test

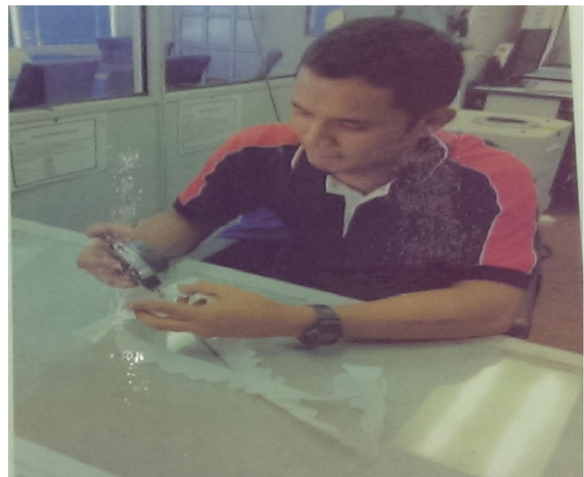


Figure 5 (b). Thickness Test



Figure 5 (c). Dart Impact Test



Figure 5 (d). Sealing Test



Figure 5 (e). Friction Test



Figure 5 (f). Composition and Analyzer Test



Figure 5 (g). Drop Test

Moreover, the company also re-engineering their manufacturing process to capitalize on economies of scale. As stated by (Fauzan, 1997), the qualities of the technical specialist skills that produced by public education system still lacking to standard requirement by industry. However in FMPI's situation, they are not having problem in these challenges because all the staff are with knowledge and experience in system development, engineering, operation management and training. All of the advance machineries are handled by competent personnel and regularly checked, maintained by quality experts to ensure the smooth running in production and ensuring the consistency in the product quality. Each stage of manufacturing process from receiving the raw materials, production process and product quality control, pre-shipment quality inspection until the loading of the finished goods is carefully monitored.

In addition to all of the above, the success of FMPI was also due to their constant progressive drive for Research and Development (R&D) into improving product quality and reducing their production cost to compete with world market. R&D is directly related to innovation and the innovation activities of small and large firms respond differently to varying technological and economic environments (Lee, 2005). Meanwhile, successful participation in the rapidly changing global economy also requires Malaysian manufacturing SMIs to craft new strategies to address their marketing weakness (Tan, 2008). These include the development of own brand names for an international branding presence and effective branding strategies (Anholt, 2005). While some Malaysian brands have emerged, other Asian brands are enjoying global success. Their branded goods continue to be in demands in the face of adverse competition (Forum, 2008). Brand promotion should be part of the marketing plan and corporate strategies. Brand development hinges on the R&D capabilities of the SMEs. This require increasing their investments in hardware, software and employee's education as well as participating in clustering and collaboration activities.

FMPI owed its success in securing the vendor to its strong collaboration on R&D with Universiti Malaysia Pahang. This collaboration is for Knowledge Transfer Programme under the project of Control System Technology Transfer, Design of Plastic Printing and Engineering Management in Industrial Management. Throughout this research collaboration, the company's enable to make a continuous improvement on product quality and design. Both parties conduct a lot of studies and cooperate in R&D to generate new ideas and keep each other updated on latest development.

5. Challenges Ahead

In order to get where they are now, FMPI had overcome many challenges. One of their main challenges faced was their material. The raw materials consist of imported and local Malaysian low density polyethylene resins plus a special type of imported linear low density polyethylene (LLDPE) resin. As the imported raw materials made up a large part of product cost, any changes in the exchange rate would affect their profit. Therefore, changes in the exchange rate would affect the company because they receiving payment in Ringgit Malaysia.

FMPI also presently facing challenges from the lower range of market segment. FMPI's product categorized in the middle range of the market segment. In these lower range of the market segment, products which are distributed may represent future challenges for FMPI if these companies manage to improve their product through R&D. Therefore, FMPI has to maintain on R&D in their products to differentiate themselves from their competitors.

Apart from the above, our country currently lagging in innovation. This is happened due to the lack of research culture and R&D activities always be seen as an activities that require big funding and longer time needed (Fong, 1999). Inadequate financial support from governing bodies also become an obstacle in making innovation. Innovation is an important for the success of SMIs. Innovation means to break away from the established pattern (Chew, 2006). SMIs that adopting innovative strategies by improving the quality of products and services to a level that fulfill customer satisfaction and at lower cost than their rival (Pralahad & Hamel, 1980). To become innovative, an organization should not standardize output by focusing on control but should rather inspire creativity (Mintzberg, 1979). The terms creativity here is totally different from innovation process. Creativity is more on the critical thinking process that help us to generate ideas meanwhile innovation is the application of such ideas towards creating better product; less cost, more effective and more aesthetic (Majaro, 1995). Figure 6 described the details on creativity as a critical commencement component of the innovation value chain. Therefore, more drastic action must be taken to improve companies to undertake R&D innovation.

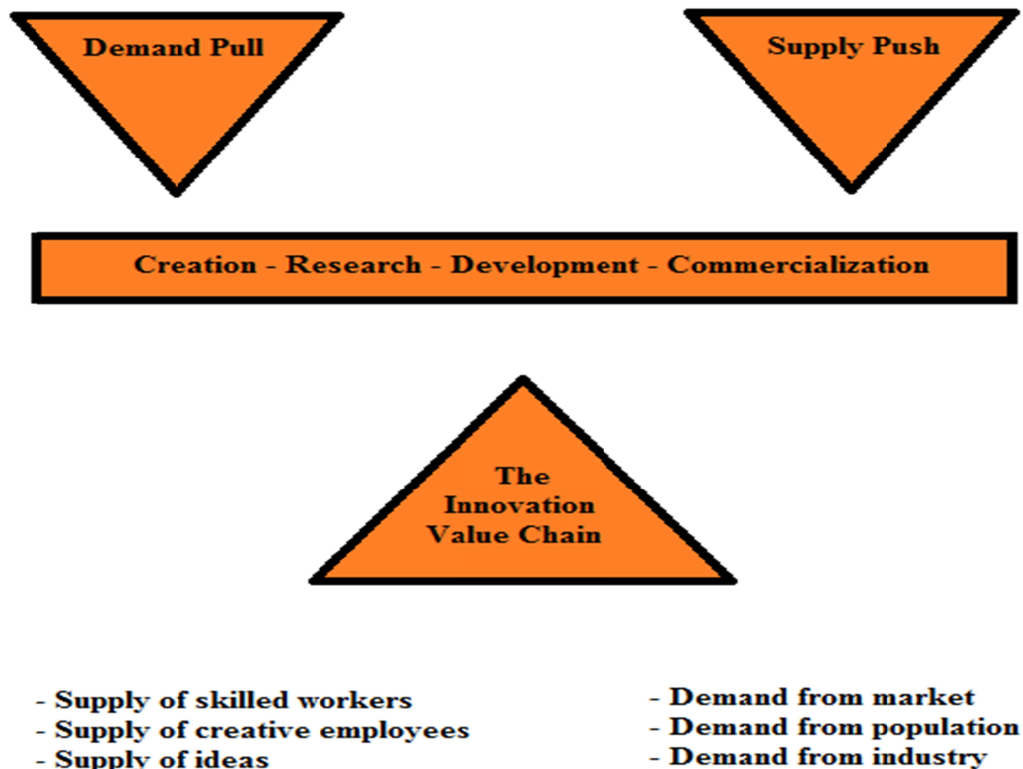


Figure 6 (g). Creativity and Innovation (MOSTI, 2007)

6. Summary

This paper had discussed in regards to how FMPI managed to secure Petronas Vendor Development, their strategies and challenges they are facing. Based on the strategies that stated above, we can concluded that three main important aspects need to be considered which are developing the sound quality management, product quality and continuously engaging in market research and R&D to increase the competitiveness.

7. Acknowledgements

The authors would like to greatly acknowledge the cooperative effort by FM Plastic Industries Sdn. Bhd. for providing all the information regarding the company for this paper and special thanks for Knowledge Transfer Programme (KTP), Ministry Of Education and Economy Planning Unit for financial assistance support under RDU141011.

References

- Anholt, S. (2005). Why is Branding So Important, <http://www.earthsspeak.com.htm> {accessed 22nd October 2007}.
- Chew, S.P. (2007). Enhancing the Competitiveness of Malaysian Software Companies Competing in the Global Market Place, Unpublished DBA Thesis, Southern Cross University.
- David, F.R. (2005). Strategic Management Concept and Cases (10th Ed.), Pearson Education Inc., New Jersey.
- Fauzan, MN (1997). IT Skills and Knowledge in Malaysian Universities, thesis submitted for the degree of Doctor of Philosophy, University of Wales, Lampeter.
- Fong, W.F. (1999). The New Asian Way, Pelanduk Publications, Malaysia.
- Imai, M. (1986). "Kaizen: The key to Japan's competitive success", McGraw Hill, USA.
- Kissin, Y. V. (2008). Dart impact testing of polyethylene film: mechanical interpretation and model. *Macromolecular Materials and Engineering*, 293(1), 66-77.
- Lee, C. (2005). "SME Innovation in the Malaysian Manufacturing Sector", Faculty of Economics and Administration, University of Malaysia, email: casey@um.edu.my
- Majaro, S. (1995). "Creativity in the Search for Strategy" in Crainer, S (Ed), *The Financial Times Handbook on Management*, Pitman Publishing, London.
- Mintzberg H. (1979). *The Structuring of Organizations*, Prentice-Hall, Englewood Cliffs.
- Ndubisi, N.O. (2003). "Service quality: Understanding customer perception and reaction, and its impact on business", *International Journal of Business*, Vol 5 No 2, pp. 207-219.
- Peacock, A. (2000). *Handbook of polyethylene: structures: properties, and applications: CRC Press*. pp.201
- Pralahad, CK & Hamel, G (1980). The Competencies of the Corporations, *Harvard Business Review*, May – June, pp. 79 – 91.
- Reichheld, F.E. 1993. "Loyalty-based Management", *Harvard Business Review*, 71, March-April, pp.64-73.
- SME Annual Report (2006), National SME Development Council. Kuala Lumpur.
- SMIDEC (2002), "SMI Development Plan (2001-2005)", Percetakan Nasional Malaysia Berhad, Kuala Lumpur.
- Tan, L. L. (2008). The internationalisation of Malaysian manufacturing small and medium enterprises.
- Ting, O. K. (2004), "SMEs in Malaysia: pivotal points for Change", on line and available at <http://www.mca.org.my.hs>.