A CASE STUDY ON IMPROVING SPARE PART DELIVERY AND DISTRIBUTION PERFORMANCE

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UNIVERSITI SAINS MALAYSIA

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ABSTRAK

Alat Ganti adalah salah satu penjana keuntungan utama dan nilai tambah perkhidmatan selepas jualan, terutama bagi syarikat-syarikat automobil. Pertandingan yang sengit dalam industri automobil dan alat ganti telah meningkatkan kepentingan tentang penghantaran alat ganti pada tepat masa dan ketersediaan alat ganti tertentu. Oleh itu, syarikat-syarikat sentiasa mencari cara dan penyelesaian yang berkesan supaya dapat memberikan perkhidmatan yang terbaik kepada pelanggan.

Kajian ini adalah berdasarkan penyelidikan di Bahagian Pusat Ganti dalam sebuah syarikat pemasang motosikal yang terletak di Pulau Pinang, Malaysia. Pusat Alat Ganti, BSH SP telah menghadapi cabaran di mana ia tidak dapat menyerahkan alatalat ganti untuk pelanggan pada masa yang pelangan itu perlukan. Tahap kepuasan pelanggan pada pengedaran alat-alat ganti baru-baru ini hanya 45 peratus. Oleh itu, kajian ini adalah bertujuan untuk meneroka punca prestasi pengedaran yang rendah di Bahagian Pusat Ganti tersebut dan mencadangkan cara-cara penyelesaian untuk meningkatkan prestasi ini.

Kajian ini telah dijalankan secara kualitatif dari aspek yang berbeza di BSH SP, termasuklah penyumberan, pengudangan, penghantaran dan pengedaran alat-alat ganti, dengan menggunakan empat jenis alat analisis, iaitu Analisis SWOT, Analisis Proses, Analisis Punca dan Akibat dan Analisis 'Why-why'.

Analisis tersebut merumuskan bahawa punca prestasi pengedaran yang rendah adalah disebabkan oleh viiitocki-faktor viiitockie, bahan, pengangkutan dan pekerja di BSH SP. Peningkatan dalam penyampaian dan pengedaran BSH SP boleh dicapai dengan menumpukan perhatian kepada mengautomasikan proses, menubuhkan dan monitor metrik yang selaras dengan matlamat syarikat, mengkaji tahap inventori yang diperlukan dan peramalan permintaan pasaran dari semasa ke semasa serta meningkatkan kecekapan pekerja-pekerja dengan merujuk kepada H Sistem Latihan yang sedia ada.

ABSTRACT

Spare Parts is one of the main profit generators and value added-after sales service, especially for the automobiles companies. Changes in the competitive environment in automobile and spare parts industry has highlight the importance of high on-time delivery and spare part availability performance. Therefore, companies are always seeking for methods and solutions enabling them to provide the best service to customers through the most efficient ways.

This case study is based on a research at a Spare Part Centre of a motorcycle assembler company located in Penang, Malaysia. The Spare Part Centre, BSH SP has faced the challenge where it was **unable to deliver the spare parts to customer at the time they needed**. The alarm is trigged as the result of recent customer satisfaction level on its delivery and distribution performance at only 45 percent. Hence, this case study is aim to explore the root causes of low delivery and distribution performance of the Spare Part Centre and recommending solutions to improve this performance.

This case study has been conducted through a qualitative study including investigation in different BSH Spare Part areas, namely sourcing of parts, warehousing and distribution by employed four analysis tools, such as SWOT analysis, Process Flow Analysis, Cause and Effect Diagram and Why-why analysis.

The analysis concluded that the root causes of poor delivery and distribution in spare parts include process factors, material factors, transport factors and man factors. The improvement on delivery and distribution of BSH Spare Part shall be focused on automating existing processes, establishing and monitoring metrics which are in line with overall goal of company, timely review on inventory level and demand forecasting as well as improve staff competency by utilizing existing H Training System.

EXECUTIVE SUMMARY

BSH Spare Part Centre (BSH SP) is one of the sections under Business Division in BSH organization. It plays an important role as an agent to import and supply the H genuine parts to local market. Being able to **fulfill the demand for spare parts at the time customers are needed** is the key element of customer satisfaction and retention, and it is also a big challenge for BSH SP.

BSH SP personnel have revealed that low delivery and distribution performance is a major impediment to sales and reputation of organization. Hence improving delivery and distribution performance has been a priority for the company nowadays. This case study is aim for identifying the root cause and seeking for methods and solutions enabling them to provide best service to customers. Data in the form of monthly reports, process manual and orientation slides, was collected from the BSH SP Team, namely Sales and Dealer Development Team, Purchase and Inventory Team and Warehouse Team as they have direct relationship with the delivery and distribution process. Besides that, total of three interviews are also conducted with the three team leaders on 26th Sept 2014, operation manager on 30th Sept 2014 and the BSH authorised dealer on 1st Oct 2014, to further understand the delivery process and to identify the root cause of the issue. Based on the data collected and interview conducted, the delivery and distribution performance is depending on spare part delivery reliability and stock availability.

In this case study, four analysis tools were employed to have a better understanding on the issue. These tools are SWOT analysis, Process Flow analysis, Cause and Effect Diagram and Why-why analysis. First, the SWOT analysis is used to understand BSH SP current position in the local market by identifying the organization's strengths, weaknesses, opportunities and threats. Secondly, Process Flow analysis is then used to understand the overall communication process among customer, Sales personnel, Purchase personnel and Warehouse personnel. Thirdly, the potential causes and effects of the critical issue are identified by using Cause and Effect Diagram (Fishbone Diagram). Factors which have contributed to low customer satisfaction with delivery and distribution involved Procedure, Material, Transport, and Man. The potential factors found in SWOT analysis, Process Flow analysis and Cause and Effect Diagram have been further analysis with the support of BSH SP's monthly report. Once all the inputs are established on the Cause and Effect Diagram, the "Why-why" technique is used in order to peel away the layers of symptoms, then the root cause of a problem and solutions can be identified.

The main recommendations for BSH SP to ensure the improvements include: improve processes and links among various parties by adopting automated system, enhance supplier and outsourced transporters performance, timely review and revise sales forecast, timely review inventory level and improve staff competency.

1.0 Introduction

BSH Sdn. Bhd. Is an assembler and distributor of H motorcycle. It has carved out a name and image for itself since 1957. To date BSH has introduced several models of best selling motorcycle in Malaysia, for example H70 and HX5. BSH dominates 47 pecent of the Malaysian motorcycle market share, with the production of 250,000 units of motorcycles of various models per year. Up until year 2013, 4.4 million units of motorcycles have been manufactured and it makes BSH the largest manufacturer in Malaysia.

BSH Spare Part Centre (BSH SP) is one of the sections under Business Division in BSH organization. It plays an important role as an agent to import and supply the H Genuine Parts to local market. Being able to **fulfill the demand for spare parts at the time customers are needed** is the key element of customer satisfaction and retention, and it is also a big challenge for BSH SP.

In order to build relationships through commitments, BSH SP has conducted its first customer satisfaction survey in between 1st Sept to 30th Sept of 2014 to measure customer satisfaction for indentifying areas for improvement of BSH SP performance. This survey is distributed to its top 10 Stockist and top 100 Dealers to feedback on each critical key element of its business operation. Subsequent to the mailing of those letters, BSH SP attempted to reach each customer by telephone in order to secure their agreement to participate in the survey and to confirm and in necessary, to correct their contact and mailing information. As a result of those

phone calls, BSH SP successfully obtained 10 Stockist and 60 Dealers verbally agreed to participate in the survey. Within the stipulated period, a total of 54 completed surveys have been returned (5 from Stockist and 49 from Dealers), producing a response rate of 77 percent. The principle focus of the survey was to seek customer opinions about their relationship with BSH SP as they pertain to the following areas:

- Product Quality
- Product Promotion
- Price competitiveness
- Products Delivery and Distribution
- Technical Support and Expertise
- Customer Service Quality

On that basis, the following scale provides the expression of results:

Total Satisfied	Category	Description
75% and Above	Exceptional	There is little need or room for
		improvement
60% - 75%	Very Good	BSH SP is doing a lot of things right. This
		level is rarely achieved.
45% - 60%	Good	Most successful companies are at this level
30% - 45%	Average	Bottom line impact is readily attainable.
15% - 30%	Problem	Remedial actions are needed.
0% - 15%	Serious Problem	Immediate and decisive actions are needed.

Target of BSH SP is to achieve 75 percent overall customer satisfaction. The result obtained from the survey show the overall positive achievement of customer satisfaction level (Figure 1.0). Among the criteria, product quality achieved highest customer satisfaction level at 90 percent. Next, technical support and expertise achieved 85 percent and customer service quality achieved 80 percent, while product promotion and price competiveness achieved 75 percent customer satisfaction level. However, product delivery and distribution recorded the lowest customer satisfaction level at only 45 percent.

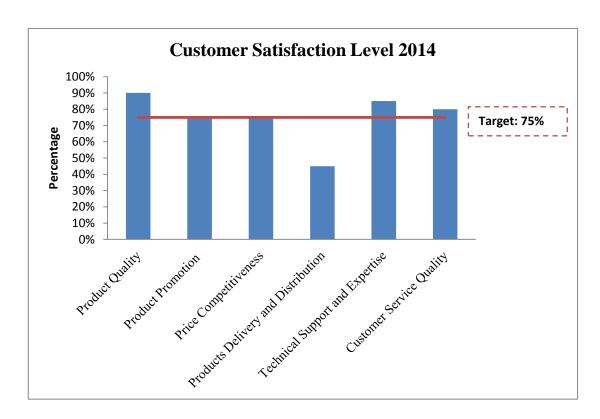


Figure 1.0 Customer Satisfaction Survey towards BSH SP for year 2014 (Source: BSH SP)

Mr. Sam, the newly appointed BSH SP Operation Manager, understood that he has to face the challenges to improve the performance of delivery and distribution in SP to ensure customer satisfaction and business sustainability of SP. Hence, he

immediately called a section meeting with Sales, Inventory and Warehouse Team Leaders to discuss about the issue of poor delivery and distribution performance.

1.1 Problem Statement

BSH SP is the one and only authorized H Genuine Parts supplier in Malaysia. BSH SP distributes the spare parts to end customer via Stockist and Dealers. BSH authorised Stockist and Dealers will place order to BSH SP based on their own judgement on trend of market demand as well as end customer order. According to the customer satisfaction level result, BSH SP failed to deliver and distribute the H genuine parts to its customers (Stockist and Dealers) at the time they needed it. Some of BSH SP's customer, especially Dealers, faced a great pressure when they unable to fulfil their customers' (end customers) demand. In order to ensure motorcycles back to good condition after serviced or repaired, end customers normally are willing to wait for H genuine parts. However, some end customers can't afford to wait, especially for the case of warranty claim. They want the parts immediately to getting their motorcycles up and running. As a result, end customers will request the Stockist or non-BSH authorised Dealer to look for other faster alternative solution, such as imitation parts from other countries. This has caused the cancellation on the H Genuine Parts purchase order.

If this situation continues, it will affect end customer's purchase decision on H motorcycles in future because of the perception of hardly to find spare parts for the H motorcycles. End customer will probably switch brand and no longer support BSH motorcycles. This will impact to the sales of BSH SP authorised dealers which solely

sell BSH motorcycles; while some of the multi-brands concept dealers might not continue to encourage end customers to choose BSH motorcycles but promote other competitors' hot selling products for higher incentive rewards. Eventually, overall BSH bottom line will be easily attainable and its market share might be overtaken by other competitors.

Hence, BSH SP Operation Manager Mr. Sam and his team will focus and study on:-

- 1. What is the root cause of poor spare part delivery and distribution performance in BSH SP?
- 2. How can the Spare Part delivery and distribution performance in BSH SP to be improved?

2.0 Industry Background

2.1 Motorcycle Industry in Malaysia and other Asian Countries

Motorization in Asian countries is growing fast and the motorcycle is the dominating transport mode. The number of motorcycles per thousand people averaged over several major Asian cities is approximately 196, which is 7 times the average of the rest of the world. For example, the number of registered motorcycles in Taiwan comprises 50 percent of the total number of registered vehicles; in Thailand it is 63 percent, in Cambodia 84 percent, in Vietnam 95 percent, in Lao 79 percent and in Indonesia 73 percent (Marizwan, 2012). Malaysia, with a population of 30 million (The Star Online, Feb 2014), is not an exception.

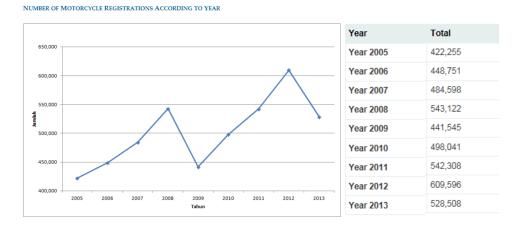


Figure 2.1 Number of Motorcycle Registration According to Year (Source: Road Transport Department Malaysia)

According to The Road Transport Department of Malaysia, the total number of motorcycles in 2009 was 8,940,230 (47 percent of all motorized vehicles), which was 5 percent more than passenger cars (Marizwan, 2012). With the number of motorcycles registered from year 2010 to 2013 in Malaysia (Figure 2.1), makes

Malaysia hits 11,118,683 units of motorcycles. As of year 2013, the number of motorcycles ownership in Malaysia has reached 6 persons per motorcycle.

In Malaysia, the motorcycles industry started in 1957 when the late Mr. Loh Boon Siew (later Tan Sri) got the distribution and franchise license from Honda Japan Co. Ltd. Since then, the motorcycle industry in Malaysia developed. According to Motorcycle and Scooter Assemblers and Distributors Association (MASAAM), 95 per cent of motorcycle market in Malaysia today was monopolized by the five main manufacturers including Honda, Yamaha and Modenas, and 13 percent of the motorcycles sold were scooters.

Malaysian consumers now have a wider range of motorcycles to make their choice. In recent years, models and makes from China and Taiwan, for example SYM, were introduced in the domestic market at competitive prices.

2.2 Motorcycle Spare Parts in Malaysia Market

The down trend of number of motorcycle registration (Figure 2.1) reflects Malaysian motorcycle market has "reached a peak" as rising affluence leads more people to buy cars. This statement can be supported by a research done by Sheikh (2006), where it is predicted that when the income level of motorcyclists reaches RM 2500 (about US\$700) per month, the probability of motorcycle use would drop from 80 percent to 57 pecent. At the same time, the probability of car commuters would increase from 20 percent to 41 percent. According to our 8th Malaysia plan, the per capita income

growth target under Vision 2020 is expected to be RM 3166. Therefore, a 29 percent reduction in motorcycle use is expected to be achieved between years 2013-2020.

As motorcycle market matures, the potential of the after-sales market has started to be gradually realized. The spare parts business has become more strategically important and will become one of the key areas for future competition. The spare parts business is considered the main driver to enhance customer satisfaction and generate repurchase opportunities: Spare parts operations is one of the key factors in ensuring favorable service levels for customers. As the proportion of additional sales and replacements has gradually increased, customers have begun paying more attention to the quality of after-sales services, which directly affect their purchase decisions.

The importance of after-sales service and spare parts operations to overall motorcycle sales is becoming increasingly obvious. For example, motorcycle owners are rather refurbishing their motorcycle than purchase a new one. In addition, a crucial competitive factor is that the primary product and the provision of spare parts to customers should not be perceived as being separate entities. Spare parts for out-of-date products that must remain available as a result of guarantee and maintenance contract. Rather the customer demands a full range of services that also include maintenance and technical assistance to go along with the provision of spare parts. Hence, all the motorcycle market players in Malaysia have established their own distribution channel via dealership to provide services comprises primary product sales and after sales service (e.g. repair service, trading and spare parts).

2.3 The Challenge of Motorcycle Manufacturer and Spare Parts Business

The increasing variety of primary products poses a major challenge for spare-parts service. For instance, new standards are being formulated for a comprehensive range of motorcycle spare parts since April 2006 to ensure the safety of riders. Motorcycle and Scooter Assemblers and Distributors Association of Malaysia (MASAAM) chairman Datuk Syed Mohamad Aidid has announced that the new standards covered a broader range of motorcycle components such as speedometers, headlamps, rear view mirrors and exhaust pipes. Previously, Malaysian standard covered only spare parts such as rims and chains. Hence, in order to meet the compliance of new Standard of motorcycles, all the motorcycle manufacturers in Malaysia are required to review their motorcycle design and carry out R&D for the motorcycle parts for the new models. Besides that, more and more customer-specific and complex colour mixed motorcycles models are being developed, the innovation and marketintroduction cycles of products are becoming shorter and shorter, and the length of guarantees for spare parts is rising as well. This is causing demand to spread over several products and the total number of Stocking Keeping Units (SKUs) is very huge.

Spare parts supply chain management is more complicated than that of finished products. The demand pattern in spare parts does not follow a stable predetermined pattern as production and can be more characterized as erratic. Hence, it is difficult to control. For instance, some parts have very low to zero demand. However, those parts might be expensive and critical. Additionally, delivering the spare parts is more complex than delivering the products in manufacturing supply chain. Companies need to deploy parts as well as the people, equipments and infrastructure in more

locations than they do in the manufacturing to be able to meet the needs of the customers. All of the above pose enormous challenges to parts planning, purchasing, ordering, and transporters, among other operations.

On the other hand, imitation spare parts issue also became a challenge for Spare Part business. According to Bernama (Nov 2006), The Federation of Asia Motorcycle Industries (FAMI) views the high use of imitation motorcycle spare parts and components in the market as a threat to the sector. The government has been urged to take firm action on the distributors of imitation spare parts of motorcycles and scooters. It is reported that, in April 2006 the state domestic trade and consumers affairs enforcement team seized about RM100,000 worth of spare parts from a warehouse involved in packaging imitation motorcycle parts in the Juru Light Industrial Park. Although there is the risk that will be arrested under the Trade Description Act 1972, the activity of imitation motorcycle parts distribution still exists and active in local market until today.

3.0 Company Background

BSH Sdn Bhd ("BSH") was incorporated in Malaysia on 1968 formerly known as K Motor Assy Plant Butterworth. It established as a joint venture project between Malaysian and Japanese partnership since September 2008. With uphold the Japanese H's belief, BSH strengthen its competitiveness and strive to provide products and services, exceeding the customers' expectations. Since local production of motorcycles started in 1969, a total of 4.4 million units have been manufactured. BSH dominates 47 percent of the Malaysian motorcycle market share, with the production of 250,000 units of motorcycles of various models per year. It makes BSH becomes the largest manufacturer of motorcycles in Malaysia. In 12th Mar 2013, BSH's new one-stop motorcycle production plant in Batu Kawan, Penang, is completed and fully operational. This new facility occupies a 23.7 hectares site and is five times larger than the previous plant in Butterworth with an annual production capacity of 350,000 units which serves to cater for the domestic market. There are total of 850 staff, out of which 85 percent are production workers and all of BSH's production workers are local. It marks a significant milestone in the company's plan to consolidate Manufacturing, Sales, Customer Service, Safety Riding as well as Spare Part Centre, into one integrated location for management efficiency and greater customer satisfaction.

3.1 Company Philosophy

BSH upholding H Philosophy, which is consists of H fundamental beliefs, principle and management policies.

3.1.1 H Fundamental Beliefs

a) Respect for the individual.

Every aspect of relationships with customers should exceed their expectations. Satisfying the customer is their top priority. Those who conduct business with BSH – business partners, dealers, suppliers – should get something positive from the experience. The concepts of "Initiative", "Equality" and "Trust", also apply to BSH relationships with their dealers and suppliers. As member of society, BSH must be sensitive to the needs of the communities in which they do business and to the environment.

b) The Joys

To provide Joys through business: for those who buy product, engage in selling product and services, and are involved in business of creating products by providing quality product and service, relationship development based on mutual trust and recognition in well done job.

3.1.2 H's Principle

To maintain global view point: To supply products of highest quality with a reasonable price for customer satisfaction.

3.1.3 H Management Policies

H Management Policies includes:-

- Proceed always with ambition and youthfulness.
- Respect sound theory, develop fresh ideas, and make the most effective use of time.
- Enjoy your work and encourage open communications.
- Strive constantly for a harmonious flow of work.
- Be ever mindful of the value of research and endeavour.

3.2 BSH Vision, Mission and Tagline

3.2.1 BSH Vision

BSH vision is to provide Malaysian two wheeled products & services with the joy and satisfaction of global quality.

3.2.2 BSH Mission

BSH constantly support individuals by sharing its same dream of happiness. Its mission is to create a harmony society through corporate activities, such as safety riding & social contribution, social communication, employment, 7S dealership, green activities as well as emphasize on providing safety & environment friendly and global quality two wheeled product and service to ensure the well being of its customers.

3.2.3 BSH Tagline

BSH tagline is Passion towards Dreams. BSH's responsibility is to transport individual's dreams with BSH's two wheeled products – making them a reality and thus joys and satisfaction are created (Figure 3.1).



Figure 3.2 BSH vision, mission and tagline (Source: BSH website)

3.3 Company Structure

BSH company structure is comprises with total of 4 divisions, 13 departments and 35 sections which have seamless cooperation in day-to-day operations in order to achieve company's goals (Table 3.1).

Table 3.3 BSH Organization Chart year 2014 (Source: BSH Net)

	Division	Department	Section	
		Sales & Marketing	Sales & Branches	Dealership Development
		Sales & Marketing	Marketing	Business Planning
	Business	Logistic	CBU Inventory	Distribution
	Dusiness	Safety Riding	Safety Riding	
		Customer Service	Customer Service	Spart Parts
		Motorsports	Racing	
		Manufacturing	Facturing Planning	Material Service
		Planning	New Model	
		Production	Assembly Frame	Painting
	Manu-	Production	Welding	Maintenance
		Ovality Control	Quality Assurance	Final Inspection
Board		Quality Control Parts Quality		
of		Purchasing Parts Development	Purchasing	Cost Planning
Director			Parts Development	Custom & Exemption Adminstration
		Human Resource	Industrial Relations & Employee Relations	Training & Developments
	Human Resource	Compensation & Benefits		
	Admini- stration		Safety & Health	General Affairs
stration	Corporate Affairs	Governance & Communication		
		Informaiton	Application	Infrastructure
		Technology	Technical	
	Finance	Finance	Financial Accounting	Management Accounting

3.3.1 BSH Spare Parts Centre (BSH SP)

With increasing demand of BSH motorcycle spare parts in the market, Spare Parts

Centre (BSH SP) has been established in year 2009 to import and supply various
types of original equipment manufacturer (OEM) spare parts, TOB (tyres, oils and
batteries) and accessories to local dealers and 15tockiest. BSH SP has its independent
warehouse and office in the new plant in Batu Kawan to manage their business to
business (B2B) operation, includes sales order, inventory, warehousing.

a) BSH SP Section Structure

BSH SP is under Business Division in BSH organization chart. BSH SP internal supply chain consists of three different teams, namely Sales and Dealer Development (Sales), Purchase Inventory (PU) and Warehouse (WH). Currently, total associates in

SP are 29 persons; they are leaded by Chief Executive Officer and Senior Manager from Japan (Figure 3.3.1((a)).

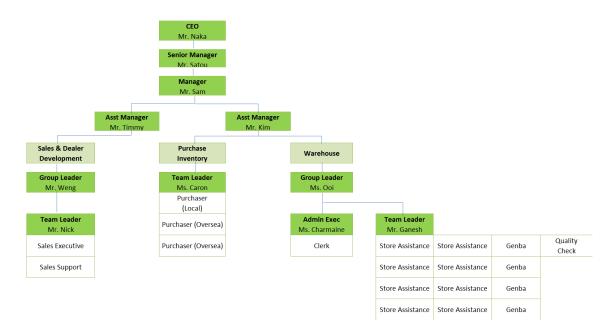


Figure 3.3.1(a) Spare Parts Section Organization Chart year 2014 (Source: BSH Net).

b) BSH SP Mission

BSH SP Missions are:-

- To supply spare parts or services in the right quality and quantity, and to
 distribute them to the right place at the right time, thereby making the
 greatest contribution to the organization.
- Deliver **trust** and **reliability** meeting customer's expectation.

c) BSH SP Teams Function

Function of Sales & Dealer Development Team (Sales)

On daily basis, Sales personnel's responsibility is to perform Sales and payment collection, conduct market survey and analysis, organize internal discussion on business planning & marketing strategies, as well as product advertising and

promotion. Besides that, Sales personnel responsibility also includes make sales visit or call to Stockist and Dealers (Hereafter called Customers) for sales, preparing quotation & get confirmation of orders. They are also need to conduct Internal Section Weekly Meeting with Customer Service to understand current market trend, demand of parts and sales. Their monthly activities include fax over Dealers and Stockist Back Order list to supplier, meeting with suppliers, market sales visit, Management reporting, update & monitor Stockist and Dealers overall sales as well as discussion on Profit and Lost (P&L) result and study on the root cause.

Besides functions as mentioned above, Sales personnel are also required to attend adhoc meetings with internal sections as well as external parties such as suppliers, government department and so on. Other non-periodical functions include deliver parts to customers on urgent cases, request for sponsorship, and attend association's annual dinner as well as Customers' occasion such as wedding, business opening ceremony and funeral. Besides, they are also providing support on organizing incentives campaign trips for outstanding Customers.

Functions of Purchase and Inventory Team (PU)

PU personnel are responsible to liaise and raise Purchase Order (P/O) to suppliers according to demand from Sales Personnel and standard inventory level in warehouse and then follow up shipment from suppliers. They are also required to update inventory status and prepare Back Order report to present in Internal Meeting on weekly basis. Every month end, PU personnel will contact with oversea supplier and local suppliers to follow up the back order items and other matters raised.

Besides of the routine works, PU personnel are also required to study on competitors' spare parts costing & pricing to do comparison.

Functions of Warehouse Team (WH)

Parts receiving, labelling, allocation, picking & packing, and transports arrangement are the routine jobs of WH Team. Their responsibilities are also includes monitor branches warranty claim status and check Back Order of the partial delivery for allocation. WH Team is required to attend Weekly Internal Meeting to report the incoming and delivery report and follow up the matter arises, while the reports such as Part Sales report, Incoming Report and Delivery Report will be presented on monthly basis.

d) Supply Route of BSH SP

BSH SP is Business to Business (B2B) Product-based. It offers Original Equipment Manufacturer (OEM) Parts, TOB (Tyres, Oils, and Batteries) and Accessories to other businesses. Figure 3.3.1 (b) shows the supply route of BSH SP.

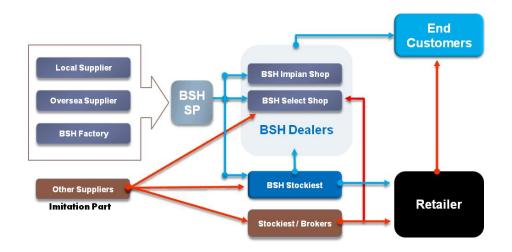


Figure 3.3.1 (b) BSH Spare Parts Supply Route (Source SP Orientation Slides)

BSH SP gets the spare parts from 3 sources: local suppliers, oversea suppliers and BSH factory. BSH SP has total of 35 local suppliers, who are mainly located in Northern region of Peninsular Malaysia. Out of 35 suppliers, there are three main suppliers who are supplying about 60 percents of Spare Parts to BSH SP. Example of local parts includes engines, cover set, sticker set, head light, handle steering, oil filter, speedometer, muffler and other small parts. Local suppliers normally are using trucks to deliver stocks to BSH SP. On the other hand, BSH has only four oversea suppliers. They are from Thailand, Vietnam, Japan and China. The import parts include raw metal or Acrylonitrile butadiene styrene (ABS) parts and emblem, while BSH factory covers painted parts, such as body covers, frame body and etc, are delivered by ocean freight or by air.

BSH SP is segmented based on 2 major Customer groups, namely Stockist and Dealers. As of 1st of April 2014, BSH SP has total of 30 stockist and 288 dealers in nationwide (Figure 3.3.1 (c)). Most of them are located in Northern region in Peninsular Malaysia (Table 3.3.1(a)).



Figure 3.3.1(c) BSH Dealers and Stockist in Malaysia (Source: BSHNet)

Table 3.3.1 (a) BSH SP Customer Location

	Dealers		Stockist
	Impian Shop	Select Shop	Stockist
Northern	10	80	15
Central	12	62	6
Southern	9	50	4
East Coast	6	36	4
East	3	20	1
Sub Total	40	248	30
Total	28	8	30

Stockist is the major contributors of BSH SP. This group order stock in bulk, generate approximately 70 pecent of yearly revenue. There are two types of dealership: Select Shops and Impian Shops. Select Shops are the dealers who implement multi-brands concept in shop who possess more than one dealership, whereas Impian Shop is one stop solution, provides the services to customers along with BSH 7S dealership policy: Sales, Services, Spare Parts, Second Hand Sales, Sports, Safety and Social Contribution. Total revenue generated by Select Shops and

Impian Shops is lower than sales generated from stockist as the quantity of order is relatively smaller. Nevertheless, these dealers are the key persons who will help to promote H motorcycles, OEM spare parts and other accessories to end customers. There are two types of order that possibly made by Dealers, namely Normal Order and Urgent Order. Normal Order is for Dealers' own inventory, while Urgent Order is for end customers that request quick repair of motorcycles that failed.

Impian shops get the original part supplied solely from BSH SP or BSH authorized stockist shops, while for Select shops and stockist, other than BSH SP, they are able to get the H Genuine Part from other sources, such as other suppliers or stockist or brokers as alternative part supply route for imitation parts. Other smaller retails shops able to get spare parts supply either from stockist or BSH's Dealers (Impian and Select Shop). Finally, spare parts will be delivered to end customers via either BSH Dealers or other retail shops.

Each type of order has its standard lead time. For Normal Order, the lead time given is 3 days, while for Urgent Order is 2 days. Indent Order (Bulk Order) given longer lead time – 2 months as the order quantity is huge and required to source from oversea suppliers. Urgent and Normal order type which required shorter lead time, normally are made by dealers, while Indent order is solely made by Stockist with Minimum Order Quantity (MOQ) that set by BSH SP. Other than Normal, Urgent and Indent Order, there is another type of order called Drop Ship. BSH SP uses Drop Ship on H Genuine Oil delivery. BSH SP did not keep H Genuine Oil stock in own warehouse, but instead transfers customer orders and shipment details to wholesaler,

who then ships the goods directly to the Customer. The lead time for Drop Ship is 1 day (Table 3.3.1 (b)).

Table 3.3.1(b) Lead time for each type of order (Source: SP Department Manual).

Type of Order	Ordered by	Lead time
Drop Ship	Dealers	1 day
Urgent	Dealers	2 days
Normal	Dealers	3 days
Indent	Stockist	2 months

For the certain conditions, the lead time of spare part delivery and distribution is negotiable with Customers. For example, in the case of the spare parts are required to re-produce in BSH Factory, such as Painted Frame Body, Body Cover and so on, the date of parts delivery is depend on the BSH Factory production schedule. Sometimes, it is depends on the location of the Customers and order quantity as well. For instance, East Coast area and East Malaysia area required longer lead time, and if the order quantity is less than minimum order quantity (MOQ), the delivery time required might be longer.

4.0 Cases Issue

The recent Customer Satisfaction Survey result has trigged the alarm of poor delivery and distribution performance in BSH SP. Obviously, BSH SP has **failed to fulfill the demand for spare parts at the time customers are needed** as the Customer Satisfaction Level only 45 percent. There is a 30 percent gap compared with BSH SP target at 75 percent. There are three questions have been asked in the questionnaire to evaluate customer satisfaction level towards their delivery and distribution performance:

Question 1 (Q1): How satisfied are you with the delivery of our products?

Question 2 (Q2): How satisfied are you with our product delivery lead times?

Question 3 (Q3): How satisfied are you with how we keep you apprised of the status of pending deliveries?

The purpose for the Question 1 is to evaluate customer satisfaction level towards the accuracy of products delivered, quantity, packing conditions, and correct invoice. Next, Question 2 is to evaluate the service performance of BSH SP on goods delivery within the lead time as promised. Finally, Question 3 is to evaluate the level of customer satisfaction towards BSH SP's Back Order estimate date (ETD) reply and accuracy as well as the Back Order Release Speed. Table 4.1 shows the feedback according to satisfaction level from 54 respondent's to the three questions.

Table 4.1 Customers Feedback on Delivery and Distribution Performance of BSH SP.

Satisfaction Level	Q 1: How satisfied are you with the delivery of our products?	Q 2: How satisfied are you with our product delivery lead times?	Q 3: How satisfied are you with how we keep you apprised of the status of pending deliveries?
Very Dissatisfied	5	6	10
Dissatisfied	27	29	36
Neutral / Not	12	12	0
Sure	12	13	8
Satisfied	10	6	0
Very Satisfied	0	0	0
Total			
Respondents	54	54	54

For better understanding about the meaning of the Customer Satisfaction Survey result, BSH SP Team then multiply the number of feedback for each question with the customer satisfaction level, where Five (5) marks for Very Satisfied, Four (4) marks for Satisfied, Three (3) marks Neutral / Not Sure, Two (2) marks for Dissatisfied and finally 1 mark for Very Dissatisfied. According to the result obtained, the respondents gave 50 percent satisfaction for product delivery, 47 percent for product delivery lead time and only 39 percent for on Back Order respond (Table 4.2).

Table 4.2 Result of Customer Satisfaction on Delivery and Distribution Performance of BSH SP.

Satisfaction Level	Mark	Q1	Q2	Q3
Very Dissatisfied	1	5	6	10
Dissatisfied	2	54	58	72
Neutral / Not Sure	3	36	39	24
Satisfied	4	40	24	0
Very Satisfied	5	0	0	0
Total Mark		135	127	106
Total Satisfaction (%)		50%	47%	39%

Overall Customer Satisfaction Level on Delivery and Distribution Performance 45%

The low level of customer satisfaction towards delivery and distribution performance of BSH SP has drawn the attention from top management. Considering the adverse