

Overcome the weakness of green supply chain business essay

[Business](#)



1. 0 Introduction THEEN SENG Paper Manufacturing Sdn. Bhd. (TSP Group) is a stationery manufacturing company which concerns and encourages people to save our mother earth. TSP Group, as an environmental friendly company, also provides a good quality and standard products. Their products involve kraft paper, crepe kraft paper, crepe kraft tape, kraft tape, mg Manila paper, envelope paper, speciality paper, and joss paper. Moreover, Dato' Kevin Lai Tak Kuan is a CEO and Group Managing Director who established THEEN SENG Paper Manufacturing Sdn. Bhd. in the year 1973. Because of his expertise, professional technical and business knowledge, he successful to lead a bunch of well trained, experienced and dedicated staffs and technicians make a well-known mark from any other paper industry by produces a number of papers product by using recycled grade of raw materials. Their approach and philosophy cultivate an environment that enables strategic thinking and creativity. With their staff's commitment, knowledge, drive, energy and enthusiasm, they continue to help their clients succeed every day. (Dato' Kevin Lai Tak Kuan, 2008). Strategies use by TSP Group is accepts changes and challenges. By facing those changes and challenges, they are able to improve as acquire innovation ideas and find a new way to solve the challenges. This strategy will influence their future indirectly and unite them, and gain more profit to their customers, shareholders and associates. TSP Group done well from other competitors is because they have a good quality range, efficient workforce, well equipment manufacturing facility, shorter timely delivery and offer warehousing and packaging facility. Their main activity is upheld their word and goal. Whole staffs of TSP Group always dedicated to their clients' success, passionate to

their work, provide best thinking, innovative and creative idea, and have the intensive to learning and listening. Vision of TSP Group is dedicated to becoming the most recognizable companies that joins profit and care for our environment. However, their mission statement is improving the quality of their products, long term growth with profitability, and sustains benefits for t future generations. Now, TSP Group are implementing some actions to achieve their mission, they will protect their shareholders' investment and give superior performance for them, and having some mutually beneficial relationship to enhance their relationship and easy for them to development their future, and offers their employees opportunities for career advancement.

2. 0 Company's Production/ Operation Processes & Facility Layout

(a) Production/Operation Processes

(i) Diagram of production processes flow (steps) & its descriptions. Waste paper Washer Pulp screening process Storage chest Slashing Process Dyeing Process Storage Chest Bleaching chemical chest Washer Refiner Paper machine Packing Dispatch Finished Goods Paper Cutter Boiling section

Diagram 1. 1 THEEN SENG is a recycle papermaking manufacturing company by using eco-friendly concept to produce the paper. They purchased their common raw materials from it supplier who provide them the waste paper to produce the final product. The production processes flow will be categorize as four main steps which are slashing process, pulp screening process, dyeing process and lastly is the cutting process. First step of slashing process is they get all the bundles of waste paper into the hydropulper to blend or slash them into pulp formed by using water to dissolve it to become a liquid formed. One bundle of waste paper needs approximately 30 minutes time to form them as a paper pulp.

After the waste papers are forming into pulp they will transfer them into a storage tank has been using the pipe to transfer them. Secondly the pulp screening process is to distinguish those unwanted grain from the paper pulp. In a certain level of the storage chest of the paper pulp they will convey them to a machine which named as " Johnson Screen" to filter all the unwanted grains after that they will transfer to the bleaching section to produce out a white paper. After bleached the pulp they will be more detail to filter out the unwanted tiny grains with the refiner by using " Cornical Refiner" machine to function it. Dyeing process is the third step for the production process in which the paper pulp stock was prepared and adding the sulphur dye of the selected color. After mixture the color they will wash out the stubborn substance such as glue was stick on the papers then they may use the paper machine by using the felt to produce the paper. Besides they have been using the dryer with the " Jumboroll" to heat up and flatten the paper simultaneously and produce it into a bundle roll. Lastly is the cutting process with using the paper cutter to cut it into different sizes of paper. After the cutting process they will calculated the weight and then packed them into boxes and ready for dispatch.(ii) Analyze and address the strengths and the weaknesses. Product focus strategy is the facilities which are organized around products also called as continuous process because the production runs are very long and continuous. Basically, this kind of process strategy is mainly for standardized product to maintain the product quality such as glass, paper, can food and so on. Oppose to an organization that is producing some kind of unique and customize products every day with high flexible as product move between process, such as restaurant,

print shop or hospital. The company who implement product focus strategy will be produce a high volume of product but is under the condition of low variety of the product. Normally, the product focused strategy can be found in the discrete unit manufacturing and the continuous process manufacturing. THEEN SENG PAPER MANUFACTURING SDN BHD has been adopted the product focus strategy in its production line is because it using the same kind of recycling raw material to create a large quantity and low variety of production. For example, THEEN SENG manufactured its production with a large quantity of inputs which is the recycling paper (raw material) to produce paper pulp and transform into final goods and there is a few product variation such as different of thickness, sizes, and the weight of products. The strength of the product focus process strategy for THEEN SENG is able to reduce the organization cost. Firstly their products are standardized so less expertise or operators are needed to give instruction or work order during the production process thus this can decrease the number of high salary workers as well as high salary paid. Secondly, this also able to reduce the labor training cost, due to the production are standardized so less skilled labor are needed for the organization they are easier training and supervision, therefore the production cost of organization are relatively low to gain low cost advantage. Besides that, the strength of THEEN SENG also includes jobs standardized because it required less job instruction and a few work orders. Due to the lesser job differentiation is given to the worker, so they will be more expert in their scope of work and ability to increase their job performance. In the other words, they can produce large quantity product with higher quality by given limited resources. With the few work

orders, worker will have lesser chance to make mistake and misunderstanding by the order which transmit from the office thus it can reduce the error production and would not make any deficit to the company. Moreover, THEEN SENG capable to performed their production very fast and finished goods maybe produced punctually because the tasks are line up with the production process. Therefore, THEEN SENG work-in-process inventory was relatively low compared to output so this is also one of the strength of the THEEN SENG. Low raw material inventories are also one of the strength for THEEN SENG to compete in the market. A low level of raw material inventories is means the less capital that use on the storing of raw material so it has more capital budget to allocate to other resources to make company be more competitive and earning a profit. The weakness of the production process of THEEN SENG is lack of flexibility in their production. They produced standardized product to their customer so that the customer have less selection of variety on their product and they might not be able to acquire new customer to increase their sales and profit. Furthermore, they may not have the capability to expand their market because of the high utilization of the facilities may limit their ability to grow in a certain markets, and they may not able to expand their existing facilities or locate additional facilities to a suitable places or sites. On the other hand, the weaknesses of the THEEN SENG may need high initial investment on their facilities. Because they were adopting product focus strategy, so they may need a huge capital to invest on their facilities to produce a large quantity of products by the continuous production process. Therefore, beforehand to start and generate the business successfully the organization may need sufficient capital to

invest in the business for their facilities. (b) Facility Layout (i) Diagram of facility layout and its descriptions. Cornical Refiner machine Johnson Screen machine (4) (5) Dryer Big Tank (6) Felt Machine (3) Jumboroll Machine Blender 2 Blender 1 (7) (2) (8) Rewinding machine Weight machine (9) (1) Hydropumpers (10) Entrance

THEEN SENG Company is applying product oriented layout. This product oriented layout is a continuous product process whereby it consists of fabrication lines and assembly lines. Fabrication line is built in components of a series of machine. This means that the raw material once enter to the production lines, then the raw material are being process and operate inside the production line until it become finished goods. On the other hand, for the assembly lines, it is putting the fabricated parts together in a series of workstations. But for case of THEEN SENG, their product oriented process is highly depending on machines to undergo the whole process of the production. So, it requires less skilled labors to operate the machine in the overall process in the production. From the diagram of layout shown above, THEEN SENG facility layout designs are taken under consideration in term of their factory size, shape and size of machine to eliminate unnecessary occupied areas and have a full use in their factory space. The machines that they are using are arranged accordingly from the first machine, hyper pump to the last machine which is the weight machine throughout the production process. By adopting this type of layout, THEEN SENG Company allow the flow of production to be done smoothly and will not causes any delay in any process as the machine are located accordingly and near to each other according to their sequence. This enables the material of producing the finished product to be travel from

one machine to another machine at the least possible distance while in the process of production to simplify the production process. Besides that, it also easier for workers to supervise the whole process to prevent any wrong in the process to occur and also providing a safer environment for their workers work flow.(ii) Analyze and address the strengths and weaknesses. Layout strategy main aim is to develop a cost-effective layout that will meet a firm's competitive needs. The effective layout design must include the high utilization of space, equipment and people. Besides that, it also needs to contain the improved flow of people, information and the materials.

Furthermore, improvement of employee morale and safer working condition also is one of the considerations. Layout design would consider the customer interaction and the flexibility and the cost that incur in the moving between various work areas. In THEEN SENG PAPER MANUFACTURING SDN BHD, it is be deemed to a low work-in-process in the facility layout. The raw material of the production is unloaded at beside of the machine which is the beginning step of the production line. This can ensure the production won't be delay just because of the time taken at every each stage of the assembly line. This can reduce the cost to employ the employees to work on the excess post. With the low work-in-process in the production, the production line is on a single line basis, it won't cooperate with the other production line so it can produce the goods in shorter time and the probability of production schedule be delayed is absent. This layout is obviously brought in strength for THEEN SENG and to make it be more competitive. Due to THEEN SENG is a low work-in-process layout production so there is low movement occurs during the production. Since the movement occurred is low so the handling material

cost will be directly proportioned. Handling material cost is the cost that expense on the transferring of the raw material which may be located at far apart from the production line machines into the production machines. By the lesser of handling material cost, the cost price of the final product will dropped. In the condition of cost efficient, it means the company is more competitive in the price selling sector. The next strength of THEEN SENG is it possesses a large capacity of free movement area. The empty space is sufficient for the transportation vehicle to shuttle back and forth through the factory to unload the raw material and loading the ordered goods. The large enough spaces can allow the factory activities to run smoothly and without a dozens of difficulties. The weakness of the facility layout of THEEN SENG is work stoppage. The production line is under single line production basis so when one of the inter-production machines is run out of function, it could be incriminate the whole production line and probably the whole production line is down. The stoppage could make the production cannot produce a completed product thus bring a huge loss for the company because the fixed cost is still running even the production is stopped. The second negative face of THEEN SENG production is the lack of flexibility in product which means the production line cannot produce different products in the same time. For an example, when the machine is running the red colour Manila paper, the yellow colour cannot produce at the same time. So, the competition segment of THEEN SENG might lose to its competitor when the specific product is looking by the customer but the stock is not available. Perhaps the competitor has the product then the sales will dropped into competitor's hand. This is a significant weakness of the THEEN SENG production line and

the improvement should be emphasized. 3. 0 Literature review and contribution

In these studies, we are talking about the aspect on how the green supply chain management (GSCM) affects company and the contribution of GSCM toward the company. From the research done by Srivastava and Lu et al in 2007, people nowadays is more concerning on their environmental issues as there are escalating deterioration of the environment such as increasing in the pollution level, reducing in the raw material needed and overflow of waste substances into the environment. That is the reason why there are a lot of manufacturing firm is using green technology in their business operation as they are now more environmental concern and trying to reduce the negative impact toward the environment. Green Supply Chain Management is defined as integrating environmental thinking into supply chain management, including product design, material sourcing and selection, manufacturing process, delivery of final product to the consumer as well as end of life management of the product after its useful life (Zhu and Sarkis, 2004). Besides, according to the research done by Rao & Holt in 2005, he found out that the adoption of greening activities will reduce the pollution, resources saving, water and energy consumption and productivity improvement. This will save down the cost of production for the company and also helps in protecting the environment towards pollutions. From THEEN SENG Company, we found out that they are adopting green practice in the area of supply chain to saving cost and efficiency. Production firm nowadays are trying to minimize the ecological burden by using environmental friendly material and technologies (Lund 1984). By using environmental friendly material in the firm production, the worn out

products can be recycled as well to become a new products. THEEN SENG is able to reduce the inventory and use recycling raw material such as the recycling paper to produce the finished goods. Therefore, this may help the company to save the cost on buying a new raw material from a supplier as the recycling paper are cost at a lower price than purchasing the raw material. So, this will contribute to their higher profit earning than purchase new raw materials. Besides, the reduction of cost will also gain the competitive advantage because they are selling their product at lower price. So, customers will purchase THEEN SENG product rather than purchase a higher price products from others competitors. Thus, this may lead to the higher sales performance for their organization. Next, a study done by Zhu et al in 2010 shows that firms can applying green supply chain to creating a win-win relationship with their customers and business partners which can ensure a sustainable growth in their whole entire supply chains. THEEN SENG Company is able to providing a good relationship with their customer and business partners by adopting green supply chain management. Nowadays a green organization is very important not only in global economic business but also to the environment. Collaboration on supplier and customer relationship can lead to environmental performance improvement and provide a better product (Vachon and Klassen 2006). So, this is the opportunity for the THEEN SENG to practice and develop in environmental management. They have adopts green management for their business and have led to a strong support from their customer and business partners. It is because by using green technology in their management, this will benefit the society through their commitment to the environment. Furthermore, this will

help the organization to consolidate their relationships with their current customers and also getting new customers in the future. Moreover, they will expand their market to global as they gaining support from their business partners, so this is a great advantage for their company as they are socially being accepted and commit to the product which are focus on the environmental management. Lastly, by expanding their market they are able to increase their market share and the organization performance is getting higher. Other than that, by adopting the green supply chain management, it can become a potential sources of competitive advantages for the firm (Van Hoek, 1999). It is because through the environmental activities that being made, it can build a favourable reputation among their customers and communities. The company which gain pressure from stakeholders will helps to gain and enhance company reputation. By having a favourable reputation for company; THEEN SENG can have a competitive advantage as they can get more customers as customer will choose THEEN SENG Company for doing their business. By gaining more customers, this will allow the company to improve in their profit, enhance market shares and also have ability to exploit new market opportunities. (L. K. Toke, R. C. Gupta, Milind Dandekar, 2012)The development of green supply chain management also enables THEEN SENG to gain new development of technology and resource to improve their company performance. This can be done by building specific capabilities over time and looking to the supply relationships to gain access to new resources. (Eisenhardt & Schoonhoven, 1996) Besides that, according to Wu and Dunn in 1995, by adopting new green technological advancement, it has encouraged firms to be more environmentally sustainable and eco-

efficient. As for THEEN SENG who is producing paper as their main product, they are highly relying on using advanced technology in their production. By adopting new technologies in their production line, this will improve their production speed and also reduce harmful substances that will pollute the environment as the new technology they are using is environmental friendly. Other than that, the instalment of latest technology, it also enhances the safety of the workers in handling the new machines and enables their workers to handle the flow of production throughout the process smoothly. According to Beamon in 1999, there are about 75% of customers claimed that their purchase power was influenced by the company's environmental reputation and that 80% would be willing to pay for environmental friendly. This could be another competitive advantage for THEEN SENG Company because of the new green technology they are having, they can provide a better quality product for their customers and can attract more customers towards their company. According to Anbumozhi and Kanda in 2005, developing countries like Malaysia are adopting green supply chain activities in their business to reduce pollution to the environment. One of the competitive advantage that contribute to the success of THEEN SENG is by using green supply chain management is gain a positive corporate image that are concern about the environment. They are able to protect the environment by producing an eco-friendly product that target to the environmentally conscious customers to show that the corporate responsibilities are good to the communities. Besides, this is the advantageous of unique selling point by the company and a long term economic development for the company (Bhateja et al, 2011). An

outstanding product with environmental management will have a higher tendency of attracting the customer therefore the organization will not have to spend a considerable time and capital to advertise, promote or convincing the customer. So this may reduce the cost of employ an advertising agencies to promote the products. Besides, a good positive corporate image may acquire trust and credibility from the customer on the product and they will also get a loyalty customer due to the outstanding and unique products. Furthermore, THEEN SENG is one of the successful businesses in Malaysia that implement the green supply chain on their business. They are undergoing sustainable development in the business to avoid those legal problems, build a stronger community, designed that are good for the environment and also benefits to local and worldwide business. THEEN SENG has a strong support in the community who really concern about their environment. Besides, people nowadays are more concern towards the environment, so green practice and development are the goods areas to develop on their business and this is an opportunities for the sustainable economic growth in future (Zhu et al. 2010). Therefore community support towards their business activities will help them growing their market and provide more environmentally friendly products into the markets. In spite of that, by adopting such initiative programs on green supply chain management, this will helps in increasing the organization overall performance in term of employees, community, environmental, stakeholders and also financial. For example, employees who work with THEEN SENG that have been gone green, they have highly value to the company and they often have a higher performance level than other company's employees. So

this will be able to gain the competitiveness in the industry. Lastly, going green in this company will enable the company to implement eco-efficiency and manufacturing process that helps THEEN SENG to achieve best practices (Ashley 1993; Srivastava 2007). They are also able to reduce the emission and produce a better air quality and improve environment quality for the employees who work with the company and help the community to save the environment. As a conclusion from reviewing the authors' views, we think that green supply chain is an essential strategy that most manufacturers must implement in their manufacturing process in order to reduce the harmful impact to the environment and to maximize resources efficiency. Green supply chain can bring a lot of benefits to not only the environment but also the firm's business such as development of new technology that are less energy intensive, produce green environmental and better quality product for the community. Other than that, it helps companies to save costs and create a favourable corporate reputation to the general public. Therefore, we are strongly encouraging industrial firms to start carrying out green supply chain managements in order to protect and provide a better environment for everyone.

4.0 Recommendation

4.1 Strengthening the current strengths of the company's production processes

Since the jobs are standardized, and their employees will be more expert in their scope of work and enhance their job performance. To enhance this strength, THEEN SENG should improve the skills of their employees so that their performance will be improved and gain more profit than now. For example, THEEN SENG can provide an advanced training course for their employees, so that they will not just know the knowledge about their job scope but also in other job scopes. This will

enable their employees to be trained as a multi-skills staffs so that they can become a more efficient and incentive workforce for their company. 4. 2

Overcome the weakness of the company's production processes We would suggest THEEN SENG to utilize their existing machines or facilities to produce variety of products and solve the lack of flexibility problem. They can hire experts or create a new idea themselves to produce another environmental friendly product in order to attract new customers and retain their existing customers. Besides, THEEN SENG can focus on improving their marketing department and create a product department to increase their company performances. Product department helps to explore and generate new idea, idea screening, concept development and testing, beta testing and market testing and the last technical implementation. This can help improve their company performance as they will have more specialists to handle specific jobs. Besides, they can serve on niche market. For example, THEEN SENG can use their kraft paper to produce notebook package or cover of the book. Due to the high investment, THEEN SENG can buy second hand facilities initially instead of buying all new facilities. We would suggest their company to compare the price and functions of the facilities before they are making purchases. Other than that, THEEN SENG can try their best to reduce their production costs. For example, they can get their raw materials at the cheapest price or non price from recycling company and hire a sufficient number of employees needed for their company to reduce extra expenses in labor cost. 4. 3 Strengthening the current strengths of the company's facility layout Although raw material such as the waste paper are placed at beside of the machine and it is easy for workers to move the raw material, but blender

machines is not huge enough to accommodate the huge quantity of raw material they are having inside the factory, or they doesn't have enough time to process all the raw material at one time, THEEN SENG can buy a mobile robot which is automated guided vehicle, to move raw materials or finished goods to a suitable place inside the factory or warehouse for keeping. Besides, it will enhance their efficiency and reduce costs indirectly. By using this mobile robot, the factory will have more space and clean in turn it can provide a comfortable and safer environment for their employees to work. Other than that, THEEN SENG can analyze and managing their demand of their product. If demand of THEEN SENG is more than capacity, then THEEN SENG should expand its capacity in the long-term planning; however, if capacity more than demand, they can redesign product or improving processes to facilitate more throughput. When THEEN SENG meets up seasonal demand, they should have a forecasting before the period.

4.4 Overcome the weakness of the company's facility layout

In order to prevent the machine failure and work stoppage, THEEN SENG can enhance their assessment procedures and analytical tools within the Labour Program. Furthermore, THEEN SENG should make a regular check on their machines; it is because a tiny mistake on the machine can influence the overall production process. If their employees didn't check it out or check them carelessly, once the machine failure, their company will suffer from huge losses as they are highly depending on machine on their production. Nevertheless, they must fix the problem immediately when they discover anything spoiled on their machine. Besides, we recommend THEEN SENG to buy some addition sulphur dye or change it into a multi- function sulphur

dye. Even though the cost of machine is high, and this will incur a high investment cost but they can overcome the cost after they install it as they can making higher production and gaining more sales by using multi-function sulphur dye. These will indirectly improving the overall profits of their company. Another approach that can avoid from increase their cost is employees of THEEN SENG plan before process. However this is not a great solution for long-term planning.

4. 5 Strengthening the current strengths of Green Supply Chain

First, one of the advantages green supply chain is save cost and efficiency. The reason is because the cost of raw materials is lower than other competitors. The process of making paper by competitors is to cut the tree into logs, transport, and so on. Those process need to hired expertise. However, for green supply chain companies just need to collect old newspaper, used paper, cigarette box and so on. It is a big difference between them. To maintain this strategy, we suggest their company to organize campaigns to promote their company's mission, and this encourages them to involve publics to support their environmental friendly campaigns. Through this action, it can help to promote the important on green environment to the public's too. Next, they also have a good relationship with their customer and business partners. Since they are emphasizing on saving our mother earth, this will attract lots of customers and patronize on their company. Moreover, their environmental friendly product will increase the confident of customers and business partner to continue consume and become their loyalty customer and long-term partner.

4. 6 Overcome the weakness of Green Supply Chain

Because of globalization, supply chains have to develop internationally to fulfil the satisfaction of

customers and gain more profit. But it is hard for companies to produce huge amount of product to serve global customers as the materials they have are limited. Thus, THEEN SENG can make more research to explore materials and resources that can be recycled to overcome the shortage of materials. Apart from that, the cost of technology of green supply chain is soaring, and this will cause a heavy burden for their company in term of their finance. Therefore, THEEN SENG must do planning before spending on the new technology machines. For example, THEEN SENG can buy new machines one by one but not buy all machines at one time to prevent the financial problem to occur.

5. 0 Conclusion

In conclusion, THEEN SENG Paper Manufacturing Sdn. Bhd. is a stationery manufacturing company that using economic friendly concept and focus on environmental friendly to produce their product. Now, they are going to improve the quality of their products, long term growth with profitability, and sustain benefits for their future generations. After we visit THEEN SENG, we realize that the production process of THEEN SENG is simple and effective. They just only use the four processes flow to produce a variety of stationery product which is slashing process, pulp screening process, dyeing process and cutting process. Due to the speed of these four steps, THEEN SENG is able to increase their throughput, in turn to increase their sales and revenue. Besides, they will recycle again those leave recycle paper after cutting, and this will decrease their raw materials cost and improve their reputation. Other than that, they applied product oriented layout as their facility layout. This type of layout can help them to reduce their labor cost, as its production line is a single line basis; they need not lots of employees and high skilled staffs to manage

those facilities. Moreover, THEEN SENG has fully utilized their capacity and designs it as well, so they have a sufficient place for transportation vehicle. Machines of THEEN SENG were placed regularly, so that product can be produce smoothly. Finally, green supply chain helps a company with lots of advantages than disadvantages. It not only encourages us to protect our environment, but also implement and prove it for us. That's the reason why nowadays many people will do recycle and support on them.