

Main purpose of job design



The main purpose of job design is for quality, speed, dependability, flexibility, cost, health and safety. This is the way to achieve greatness in conducting their working style and working techniques. Globalization is claimed that it will help in increasing the economic prosperity and opportunity in the developing the world. Globalization will help the company to gain more profit and a lot of advantages. Not only profit and advantages can be gain, globalization will also have its own disadvantages.

Strategy formulations include the materials in making the product, where is the product being manufacture and who is producing the product. This is the strategy to improve the needs and quality for the customer. Borrowing technology from apparel manufacturers is also one of the company strategies. Process of manufacturing the product will also help in maintaining the quality; follow the newest technologies and trend. This will help in saving the cost and fulfil the customer needs.

Shoe manufacturing processes and the key factors in the design of products and services for shoes are covered in this assignment. Shoe manufacturing sequence and the system of the manufacturing process will be discussed in detailed. The key factor of designs of shoes product which includes the shoe insole and sole portion and various type of service provided in shoe manufacturing including the after sales services are presented in this assignment.

Besides, discussion and elaborating of quality planning and quality control processes in achieving high performance products and services for company. There are some different quality planning for the production and the quality

control for New Balance such as applying some ISO quality standard as a prove for the company. ISO 9000 is the series of quality standard which reflecting the importance of quality and reliability.

Quality and costing is related to each other, have a good quality product only can make the company financially strong but it also cannot be archived without the help from high technology apparel. The time was a profit for the company; we need high technology machineries to increase the amount of products with greater and stable quality.

Last section of this assignment, describe about the profit that the company earned throughout the years since it was taken over by the current chairman, Mr. James S Davis, based on the industrial analysis did by a company called DATAMONITOR and the Factsheet announced by the company itself at financial year 2010. Then we have a topic about the result to the company after the company ventured to new market in Asia, and some about the payback from the investment on technological machineries that the company had spent on.

Introduction

What is a job design? Job design is the principles and techniques to the humanization of work, improve satisfaction, improve quality and reduce employee problems. It is a process to achieve satisfaction and trust from consumer. What is globalization? Globalization is mean of interaction and integration among the people, companies, and governments of different nations. It is also a process driven by international trade and investment and aided by information technology. This process has effects on the

environment, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world.

What is strategy formulation? Strategy formulation is a way of a company plan on its business strategy. Strategy formulation is vital to the well-being of a company or organization. This strategy has effects on the company which will bring benefits. What is the process to meet the customer needs and quality? It is mean by how the shoes are being produced. This process of making the shoes will help to follow the modern trend of making the product and save cost.

Furthermore, we have mention clearly about example of quality control of New Balance such as the step of the quality check from raw material until final product. The definition of Total Quality Control (TQC) or Total Quality Management (TQM) was stated clearly here. The machines purchase from New Balance to increase their efficiency and control quality of their shoes. This helps New Balance develop better designs, improve quality, and innovate their process capabilities.

To produce a good quality and precision part in a huge number and reduce worker was an aim of all manufacturing field company, but by using handmade work is hard to do so. The only way can do is through high tech machine, by this way not only can come out a quality less reject part, on the other hand together reduce worker and make company earn in good selling and save a lot in labour cost. This will make the company finance to be strong and the enemy of manufacturing field factory was the part that been produce reject and return from their customer, this will make the company

lost a lot in the costing. Let us see what technology can help in manufacturing.

New Balance Athletic Shoe, Inc. which is a privately held company that founded and based in Massachusetts in USA performance in finance. The company was first setup in 1906 as the manufacturer of arch supports and orthopedic shoes. Now the company is famous as the manufactures for running, hiking, tennis, basketball, cross training shoes, and variety of athletic apparel. The company is being well known as the only shoe manufacturer still based in USA that offering its products in a wide range of width size with high quality of craftsmanship, which generate billion of sales annually. According to the latest factsheet dated 2010, the company is making massive earnings after the business owner taking over and decided to be more focus. The owner also invested lot of money to upgrade the manufacturing plant with newer technology machinery. Until now, the latest record show that there was a total of \$2. 32 billion USD sales made in the financial year 2009, whereby \$1. 07 billion USD of annual sales in USA, \$1. 65 billion of annual sales worldwide.

Discuss the job design and method of work organisation employed by New Balance Corporation for both local and global market to remain competitive. Critically derive the advantages and disadvantages of going global.

Job design purpose and objective is for quality, speed, dependability, flexibility, cost, health and safety. Job design is also mean by application of working principles and techniques humanization of work. This is the way of

conducting their working style and working techniques. The aim of job design is to make sure and improved the job satisfaction of the company.

Improved quality of product is an objective of design. New Balance Corporation is a company that stress on quality. New Balance is an athletic shoes company that mainly focus on performance rather than the outlook and style. The aim of job design is also to raise the productivity levels, challenge and responsibility of one's work. Example is the New Balance shoes come in a wide range of widths and sizes. The quality can be achieve because New Balance Company have their philosophy which is listen, learn and refine.

Another method that New Balance Company uses is well-trained workers. The well train workers are train to perform different jobs and tasks. New Balance Company is creative by adapting to new technologies to shoemaking. The company also constantly give training to their employee in teamwork and technical skills so they can work by sharing and helping each other on the task to make sure everything done on time.

Dependability is a job design method that New Balance Company stresses on. New Balance Corporation is a company that design and manufacture their product in the United States. Example of dependability is buyer or consumer will look into where the product is manufacture because consumer depend and trust product that are import from countries such as United States, Germany, Japan and others.

Reduce employee problem is also one of the main purpose of job design. Job design is an aimed to reduce or overcoming job dissatisfaction and employee

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bad behaviour arising. Dissatisfaction and employee bad behaviour arising will cause the employee to make mistake. Once the employee make mistake then accident will happen and that will cause health and safety.

Running shoes of new balance company is made United States. This is the culture where it produces close to the customers and also allows quick turnarounds on new design and order fulfilment. This is the flexibility of the company to fulfil the desire of customer to purchase the product.

One of the method that New Balance Corporation is they refuse to hire superstars to endorse its product and this will also help to cut a lot of cost. Borrowing technology from apparel manufacturers is also one of the company methods. This will help the company to save money and also following the modern trend.

Globalisation is claimed that globalization increases the economic prosperity and opportunity in the developing world. There are advantages of globalisation and also disadvantages on going global.

Advantages of globalisation

Staying in one country is not a good method to remain competitive, so the New Balance Corporation chooses to launch a strategy to distribute all over the globe. To gain more profit is a company aims. Profit can be gain by expand their products to all over the globe. Expand the products to worldwide will be a global marketing advantage. From the global business, New Balance Company can be advertised on the internet and customers can easily view and purchase wherever and whenever they want. Advertising in

the internet is a good advantage for the global business. Increased sales are for sure under the advertising in the internet. Under the global marketing, higher profits can be earned and achieved. New knowledge and experience is also an advantage under the internet global marketing. Another advantage of going global is jobs being created. Once the company invests in another country, the job opportunity is created. Once there are jobs for people, the economy will run smoothly. Wealth can be obtained under the global marketing and productivity can grow wider. Wealth can be obtained means that humans are going to gain money and an easier lifestyle. When going global, business will not only depend on the existing market but it will also have a wide scale market. This means that new markets and producing dynamic sales can be obtained easily. The brand can consistently maintain its brand image. When the consistency in brand image is achieved, the brand will become famous and popular. This will also bring higher sales and profit. Besides that, good ideas will be gained under going global. Good ideas can be gained from any individual in the globe and that can lead to a better design. This will help to identify what consumers need and want for their product. Going global will also establish good relationships between countries. After establishing good relationships between countries, free trade between countries also increases. Furthermore, the flexibility of corporations to operate across borders increases. This will ensure the company to run their business smoothly and without difficulties.

Disadvantages of globalisation

Global marketing also has its disadvantages which is the difference of consumer response can be unpredictable. Some of the products might be

selling fast and out of stock. Differences of consumer likes will cause the product to pile up and cannot be sold. Product that cannot be sold might go for a very cheap price and that might cause losses to the company. The disadvantage on internet marketing is when their product is promoted in the internet; they will have to compete with different type of brand and product development. Besides that, the disadvantages also include differences in consumer patterns such as needs and wants that is influence by their regional. Differences in legal concerns may also create conflict to the home market. Language barrier is a disadvantage on going global because different countries have their own languages and they might not understand English. There are also additional costs to set a website on the internet. Besides that, advertising and maintaining the website will also cost another sum of money. Another disadvantage on going global is the company will faces a lot of challenges and competitive environment. The company will face challenges from other brand that offer cheaper and quality product. Cultural problems are also a disadvantage for the globalization. This will endanger the age old cultures which have been followed religiously all over the world. There are many countries which would never agree when it comes to culture or religion. The influence of local cultures and tradition will slowly start to wear down when the migration become easy. Globalization will also increase the spread of diseases. Disease can be spread because of the increase in flow people. This will cause human to vulnerable to health issues. Conclusion is there are advantages and disadvantages of going global.

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Observe the strategy formulation and processes to continuously improve to meet the customer needs, and quality at lower cost.

Shoe is a type of footwear that protects and supports the foot. Running shoes or athletic shoes is different from the ordinary shoes. The rubber on athletic shoes helps to cushion the hard surfaces when running. The construction of athletic shoes is important in order to prevent injuries and giving a good balancing and support while running.

Running shoes can be divided into two main sections which is upper covers the top of the foot and the sole. The two main sections can be divided into three which is insole, midsole and outsole.

The process of the running shoe is starting at the front on the upper part is feather line. This is where the edge is form. The edge is form where the toe guard tip meets the bottom of the shoe. A single piece of material that gives shape to a shoe and forms the toe box is call a vamp. The vamp has an attachments some sort of a throat which it contains the eyestay and lacing section. Under the lacing section is the tongue. The tongue protects the foot from direct contact with the laces.

Reinforcements are attached to the vamp along the sides of the shoe. There are two types of reinforcements. First, it is the saddle. The saddle is when it is sewn on the outside of the back of the reinforcements. The second type of the reinforcements is called an arch bandage where if it is sewn on the inside.

Collar is a part where it is further towards the back of the shoe. Collar usually has an Achilles tendon protector at the top back of the shoe. The foxing shapes the rear end of the shoe and underneath there is a plastic cup which is use to support the heel. The plastic cup which supports the heel is called the heel counter.

Figure 1

Figure 1 above is showing how shoe is made. The first step as we can see from the diagram above is involving the die cutting. The shoe parts are cut in a cookie cutter fashion. The pieces that are cut will form the upper part of the shoe. The pieces will be stitched or cemented together and the upper part will be form. After the pieces were cemented, the upper will looks like a round hat rather than a shoe. This extra material is called the lasting margin. After that, lace holes will be punched out. After that, a last which is a plastic mould is use to fit the upper before the upper is cement with the insole board. The upper has to heat before fit on to a last. It is then both the upper and insole board is press together to get bond. Midsole and outsole is then cemented on to the upper. Before midsole and outsole is cemented to the upper, both of the outsole and midsole will have to be align and bond together. When the cement is cool, the shoe is removed from the last. The midsole is designed to absorb the shock and the wedge is designed to supports the heel. The insole which is arch support is located inside the shoe. Below is a sample of a completed running shoe.

One of the strategies to improve to meet the customer needs and quality is by manufacturing some of its product in America. When the product is

manufacture in America, trust of buyers will increase. The trust of buyers increase because America product is a trusted product compare to other countries. Example is whenever a product is being manufacture in China, consumer and buyers will think twice before purchasing the product.

Besides that, New Balance has their own strategy formulation on their product which is their own technical innovations. The technical innovation is such as a blend of gels inserts, heel counters and a greater selection of sizes. Some people might have a larger foot and New Balance Company is producing a greater selection size of shoes.

Quality control is one of the strategies by the New Balance Company. New Balance Company is producing a good quality of shoes because of the ingredients and materials in making their shoes. The ingredient is such as gel, air or plastic on making the midsoles. The inner side of the midsole is often made of firm material such as polyurethane (PU), ethylene vinyl acetate (EVA) or combination of them. This material is use in order to prevent overpronation of the foot. Polyurethane is used in the heel area and a very thin layer of ethylene vinyl acetate is used in the insole.

Besides that, New Balance Company also uses investing in other countries as their strategy to get their customer needs. Once the company invest in that country, the customer will get the product easily and the goods don't have to be import from America. This will also cut the cost on the product. Borrowing technology from apparel manufacturers is also one of the company strategies to cut cost and still following the modern trend.

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3. Critically observe the shoe manufacturing processes and examines the key factors in the designs of products and services.

In their manufacturing process line, it's not only about manpower but also with the robotic machines. It is why New Balance also brings in the new technology from apparel manufacturers and spends \$100, 000 for every see-and-sews machines which able to produce a pair of shoes in 24minute compare with 3 hours use if in China and get high productivity with efficiency speed.

Shoe manufacturing sequence

Design for shoe sole n upper and provide material detail

Create shoe sole mould to make exclusive sole and insole.

Make a sample or prototype for testing.

Have implemented on the product.

Final products come out.

Start production for shoe sole and insole.

Cutting, sewing, lasting and finishing

Quality control and delivery order.

How to satisfy customizations on shoe manufacturing with systematically?

A. Satisfaction fitting impact

Materials: The Main reason should concern for good quality shoe is the shoe material. The relationship between suppliers and manufacturers must be good and both must be able to solve problems together and suppliers must fast react on the specific material orders.

B1. Outlook customization

The customization of shoes may include the upper material colours and outlook designs. If a manufacturing systems have a high capability to satisfy aesthetic customization that allow buyer choose their shoes colours, it must be a great set of coloured materials or the material can be dye the upper portion.

B2. Shoe accessories

Shoe accessories such as bows, decoration or any particular lace may add into the shoes to add to the standard station.

C1. The materials are needed to satisfy transpiration or thermal request with much kind of different materials.

C2. Due to various types of materials, technical could needs for particular stitching technique different by the standard way for the leather. It may needs a flexible stitching station which able to adapt to different typology.

C3. If the insole production system have the capability to satisfy shock absorption of the production customization of the sole, it may needs more complex and right technique to realize a various set of shock absorption. State of the art technology is used to identify the right shape of human feet

to custom orthotic foot bed. A typical scan of human leg will be tested and this let the manufacturer able to make the most comfortable orthotic insole.

After inspected, cleaned, dressed and polished, heel socks, laces and the brand label will be added, then the QC (quality checked) will be approved and the shoes will be packed and ready to sell.

After sales services also available from some shoes company.

Method for doing an orthopaedic shoe lift

Split the sole in half, add the material build up to your specified height, taper off correctly at the front, and then reattach the bottom of your sole. This method ensures an aesthetically pleasing look as well as being very comfortable and unnoticeable.

Add a shoe lift and build up to the full length of the sole.

This is the correct way to do it and all of shoe lifts are done this way unless specified otherwise.

Why need a build up of the sole, but not just use an insole

Insoles are bad for foot when used for this purpose and can cause problems in back. The correct and safe way is to have a build up.

How high of a shoe lift can build?

There is corrected leg length discrepancies for patients as high as 6 inches and are not limited to that.

Any shoe can add shoe lift?

Any shoe with a full length concrete sole will take to a shoe lift nicely, and shoe manufacturer work with running shoes, dress shoes, work and hiking boots, and golf shoes too.

Charge for shoe lifts?

Cost starts at \$39.99 for a half inch and an additional \$14.99 for every quarter inch thereafter. There are additional charges for harder to split soles like the ones in boots and golf shoes.

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4. Discuss and elaborate the necessity of quality planning and quality control processes in achieving high performance products and services for the company.

Quality control for New Balance can be:

Dimensions of sole and insole

Dimensions of various shoe size

Colour, pattern and designs

Material of the shoe

Elasticity/durability of the shoe

Life time of the shoe

Quality check from professional

Remain the shoes quality for different production line

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Reliability of shoes box packaging for delivery.

Solid, long term partnership with trustable suppliers.

Ensuring in-store safety and quality

New technology to improve the effectiveness and quality of production.

Total Quality Control (TQC) or Total Quality Management (TQM) refers to quality control beyond the “sustaining” of quality. These two concepts may lead to continual increases in quality.

Dr. Kaoru Ishikawa, recipient of many awards, including the Deming Prize, Total Quality Control as a system of inventing and implementing quality technologies into various departments of a company engineering, production, sales and service all this is purposely for satisfying customers. He stated that viewed chronologically, TQC is only the first stage of Companywide Quality Control (CWQC). CWQC incorporates quality function deployment (QFD), where as TQC does not. QFD is a design procedure that introduces quality control in product development. It is a formal mechanism that guarantees the comment of the customer is heard throughout all the phases of manufacturing a product or providing a service.

As Dale Besterfield stated in his book Quality Control, the deliverance of a quality product or service requires the responsible integration of all the firm’s departments such as marketing, product engineering, purchasing, manufacturing engineering, manufacturing, and inspection and testing, packaging and shipping, and customer service. TQC is far more than sustaining quality, as it may include control systems, employee relations and

organizational behaviour, statistical process control, and Japanese management techniques.

Quality control techniques and standards, affecting almost all aspects of business, have now been adopted at national and international levels. The Malcolm Baldrige National Quality Award exemplifies the former. President Ronald Reagan signed the Malcolm Baldrige National Quality Improvement Act on 20th of August 1987. The act was the culmination of a national campaign to improve the quality of goods and services in the United States. The award represents the highest level of recognition that an American company can receive.

On an international level, the ISO 9000 series of quality standards was first published in 1987. These standards reflect the importance of quality and reliability as critical factors for achieving and maintaining worldwide competitive advantage. Another example is the international environment management standard, ISO 14001. Companies worldwide use this standard as a blueprint to develop and refine internal environmental management systems.

New Balance purchased 70 units see-and-sew machines in 1 short and set up on machine shops to grind the 30 templates need for a typical shoe. Each set of templates took about 1 week, but they manage to make their workers to produce a pair of shoes in 24 minutes compare with 3 hours use if in China and get high productivity with efficient speed.

High salary paid for their workers such as well-trained employees are able to make \$14 an hour. All of these well-trained employees can be perform well

and they are performing half a dozen different jobs and switching task every few minute. The efficiency of the manufacturing has been increase. Every person of them able to operate computerised sewing equipment and automated stitches that of 20 peoples work.

New balance corporate also remain competitive at home by introduce new technologies to shoe making creatively. Constantly training is also provided for their employees either in teamwork or technical skills to improve their employees' quality. Firstly, employees start with 22hours of classroom training on teamwork and get constant training on the factory floor. Then they will work in teams of five or six, sharing task and helping one another until make sure everything get done. In this teamwork function, many ideals about improvement of process will be come from shop floor workers.

In their manufacturing process line, it's not only about manpower but also with the robotic machines. They also bring in the new technology from apparel manufacturers and spend \$100, 000 for every see-and- sew machines. The most impressive part is they purchased 70units in 1 time and set up on machine shops to grind the 30 templates need for a typical shoe. Each set of templates took about 1 week, but they manage to make their workers to produce a pair of shoes in 24minute compare with 3 hours use if in China. Labour cost per shoe is \$4 hour in Maine compare to \$1. 30 in China, it is a range of \$2. 70 for every shoe which is 4percent more from the selling price of \$70. But good salary paid is worth-able when they get high productivity with efficient speed.

Investment time on the manufacturing process helps New Balance develop better designs, improve quality, and innovate their process capabilities. By the way, if it outsourced all of its production then this would cause the company to suffer lost financially.

Done by: Wong Yng Chung

5. Carefully observe how the reduced-quality product would affect the company financially. Discuss the financial analysis to justify the use of technology in the shoe manufacturing operation.

For a company the quality of product is very important to convince customer to trust and buy their product, it totally affect companies financial once the product that produce rejected and returned. The cost of transport will be charge to company for the return part. Besides that, normally reject part will cause line down if the part very urgent to support to the end customer, means that the cost will to be charge to our company account due to our reject part.

When the reject part was returned, company have to arrange manpower to rework for the part and extra costing will be count for the rework base on how many hours needed to complete the reject batch. If unfortunately the reject bath cannot rework it have to be scrap, means that extra issue cost will be needed for the raw material besides that production have to be rearrange to rebuild for the reject quantity.

Once reject part was found internally, the machine have to be stop and realignment or resetting to make sure come out part will be in good quality.

On the other hand, some time it will take one or half day to refitting or resetting regarding to the reject defect,

This will cause no output for the day and fail the shipment for that day. Delay shipment also will cause penalty by quantity not enough for the customer.

To come out a quality product for new balance, a modular manufacturing (teamwork) system were introduced. With this system it come out a better quality control and more efficient production, this system was improved with associates trained on more than one job in the factory, which meant a more varied days work and tighter quality control for the product. For the year 1991, production only can run around 2000 – 3000 pairs of shoes in a week and steadily increased to 4771 pairs of shoes per week by 1993 and continued increased to 7403 pairs of shoes by year 1996 and to 9787 pairs of shoes by 1998. The factory and finally broke the one million pair of shoes per year barrier in 2003. [11]

To produce big amount quantity and quality of shoes in a day, we need help from the technology and impossible to produce big amount and precision part by human. For example by using the inversion type rubber shoe-mould finalizing machine, it was a professional shoe making equipment which integrates the vulcanization, stitching and finalizing all process can be done by it and was fully function of automatic program control can save a lot of labour cost. Besides that it was a control by hydraulic pressure system it can keep constant the temperature, deflate, draw pattern and also control time automatically. The adoption of the mechanical connecting bar structure was to ensure no split of mould and degumming phenomenon during the

vulcanizing process. Because of the machine is inversion type, the shoes surface can be kept clean, high quality jackboot and other military shoes also can be produce by it. This is the advantage of the technology and help company to save lots of labour cost and produce quality product and some of the process is impossible can be reach by human being.[12]

Besides that in the shoes mould technology with a precision mould it can produce two pair of shoes in a short cycle time compare with a handmade, presently of new moulding technology which can reduce of the cycle time and increase in a number of cavities from two to four, this had been shown that the production efficiency has been improved with the help of the new improved shoes mould design for longer mould life and better quality parts, besides that by improved the cooling system of the mould gate and separate core inserts it used to improve ventilation, reduced thickness of the part without any compromise on quality. By this new technology it allow the significant cost saving intelligence, process innovation, increase productivity, the preventive maintenance qualit