

1. Volkswagen Group

Volkswagen Group (VW) is an automotive company established in the 1930`s with Headquarters in Wolfsburg, Germany.

VW has 60 manufacturing plants in 15 countries. In these manufacturing plants there are 370 000 employees which contributes to produce cars or to keep continuous relationships with customers, suppliers and partners in 153 countries.

Volkswagen includes brands such as Volkswagen, Audi, Porsche, SEAT, Scania, Bentley, Lamborghini and Skoda (Retrieved from <http://vwm>, 2010). VW also own the brand Volkswagen Institute which is focused in employee skills development and language learning, and Volkswagen Bank, which is a financial institution focused on savings and investments.

Volkswagen Mexico (VWM) is set in Puebla, Mexico. VWM`s adress is Autopista Mexico – Puebla Km 116, in “Parque Finsa” (Retrieved from <http://vwm>, 2010).

VW clients segments are divided according to the brands that VW has. For example, for those who are seeking luxury and sportive cars, they can find a suitable model in Lamborghini, Porsche, Audi or Bentley; but if they are looking for a family car then, they can find a suitable model in VW, SEAT and Skoda.

All Volkswagen cars are sold through dealers. These dealers are stores designed for showing VW`s car models ,and through these dealers clients can buy VW`s cars. These dealers are divided into brands. For example there are dealers for VW, Skoda and all VW`s brands. Just in Mexico City are 30 authorized dealers according to VW`s website. Through these dealers, VW can reach all their clients.

All VW's cars are distributed by Deutsche Post DHL (DHL). DHL has a contract of exclusivity with VW, this means that every part and every car produced in Mexico's manufacturing plant will be transported by DHL. (Retrieved from <http://vwm>, 2010).

Volkswagen Mexico has more than 50 suppliers in Region North America. The most important ones are:

- Kostal Mexicana
- Faurecia Sistemas Automotrices de México
- Johnson Controls Automotriz Mexico
- Saargummi Tennessee, LLC
- KI (USA) Corporation
- Borbet Alabama Inc
- Umicore Autocat Canda Corp.

(Retrieved from <http://vwm>, Report SRCP43, 2010)

Vw's Value Chain

Primary activities

- 1- Internal logistics: VW's suppliers deliver all parts inside the manufacturing plant. All materials are stored in "Naves" that are big hubs. All deliveries are under Just in Time (JIT) and are penalized if deliveries are not in time.
- 2- Operations: Production Lines work also under JIT. There are internal transport that carries all parts needed in the Production Lines.
- 3- External logistics: When cars are ready, they are sent to the Quality Department for testing the cars. Then, those cars are sent to the dealers for selling them.
- 4- Sales and Marketing: VW has a Marketing Department and it is the department in charge to make all publicity, for example on TV, in the streets or involve VW in public activities, like marathons.
- 5- Service: There is a Customer Relationship Management (CRM) Department that is in charge to track all clients and assure that they are satisfied with the car.

Secondary Activities

For organizing all internal activities there is an internal organization chart that looks like this:

VWM Organization chart



Source: (Retrieved from <http://vwm>, 2010).

VW's mission is stated in the following way: "To enthuse our clients around the world with innovative, reliable and environment friendly cars, as well as provide excellent service in order to obtain remarkable results" (Retrieved from <http://vwm>, 2010). VW had tried to accomplish this mission adapting VW cars to every market necessities (i.e. bigger cars for USA market), implementing a Customer Relationship Management (CRM) system (i.e. implementing "after-purchase" service, for example calling clients if they are satisfied with the car) and the launching of a hybrid car that would fulfill the mission of creating environment friendly cars.

The stated VW mission is completed by the Vision, formulated as "Continuous improvement of our processes and promote an excellence mindset among our collaborators and commercial partners by fulfilling national, international and VW Group's requirements

in product and service quality, prevent environment pollution and health and job security.” (Retrieved from <http://vwm>, 2010). VW’s vision is cathetic because it is stated for motivational purposes, and therefore there are some gaps in how they will maintain that “continuous improvement” and a proof of that is the problem I will elaborate below.

Going further with VW stated values, this enterprise manages three objectives: Production Objective, Customer Relationship Objective and Processes Objectives.

Production Objective

The main focus of this objective is to increase the Return on Capital. This means that all departments that operations are embedded with production line (i.e. Purchasing Department) have to focus on increasing the contribution margin by increasing savings (by lowering purchasing prices) in fabrication costs, fixed costs, warranty costs and investment costs.

Customer Relationship Objective

This objective pretends to maintain a continuous focus on creating and maintaining relationships with the client. It is expected that this objective is achieved with the use of CRM system as a tool which will help to keep track of clients.

Process Objectives

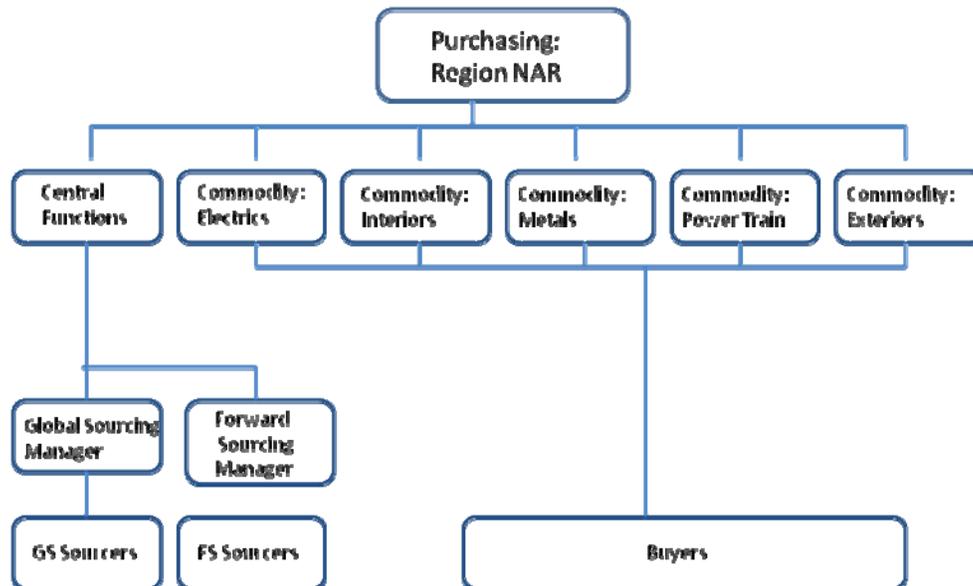
These objectives are focused to ensure delivery times, quantity and equipment; to guarantee process with high capacity of reaction; intensify suppliers development and increase productivity using Lean Production techniques. However, this is the objective that it is not being reached based on my observation in my area of study: Global Sourcing.

I did my observation on a daily basis, and it was not difficult because my workplace was near my colleagues therefore I could hear all the problems they went through and I could see how they fixed all those problems. For example if a buyer went to a sourcer’s place to talk about a process I could hear what the problem was and how my colleagues had to do to fix the situation. In many cases I participated, because I was in charge of the GS processes registration, therefore if they needed to cancel, open, re-open or change the status of a process I had to register that action.

I did it because I wanted to know exactly how the relationship between sourcers and buyers worked, in order to know which obstacles they go through in an average day of work.

1.1 Area of Work: Global Sourcing

Purchasing: Region NAR Department's organization chart



Source: Cedillo Lazcano, 2010

There are two strategic areas in the Purchasing Department which are tightly involved with parts control: Global Sourcing and Forward Sourcing.

Global Sourcing was created 15 years ago in order to find new suppliers for specific parts in NAR (North American Region, which includes USA, Canada and Mexico) however suppliers in Brazil and Argentina are also taken into account if they offer lower prices. What is intended with supplier change is to decrease purchasing costs. It is a priority to find

them in the Region America (NAR, plus Brazil and Argentina) because it will be cheaper transportation and customs costs for Mexico's plant.

The main goal of the Global Sourcing Department is change the country of origin of parts, through the change of suppliers (in Region America) in order to find local solutions for reducing the current costs of parts while maintaining quality standards.

A goal is also to increase the amount of the percentage of local content in cars produced in Mexico's manufacturing plant to promote and to develop parts with local manufacturing for exporting to VW around the world, as it is the case with VW models JETTA A4 and JETTA A5, which are produced in Mexico's manufacturing plant. Mexico is the number one producer for those models parts. Mexico is the biggest supplier of JETTA A4 and JETTA A5 parts in VW group around the world.

When the Global Sourcing Department achieves its goal, it is expected to contribute to VW group's costs reduction.

The first step for this expected goal (costs reduction) is to open a Global Sourcing Process. Standards for savings that must be fulfilled change every year. These standards are fixed in USD, and the Head Quarters (HQ) in Germany (Global Sourcing department) gives a certain Turnover per commodity that must be achieved. For example, the German standard for 2010 for commodity Metals (the area inside the Purchasing Department that buys all metallic parts of VW's cars) was to start 105 Mio USD in Global Sourcing Processes. However, this Turnover does not imply that all 105 Mio USD would be savings, it implies that 105 Mio USD must be in Global Sourcing processes (GSP) in order to achieve between 15 and 20 percent of VWM (Volkswagen Mexico) savings.

A GSP involved actors are buyers and sourcers. Sourcers (Global Sourcing staff) work every day with buyers. There is a specific sourcer per commodity (Metals, Interiors, Exteriors, Electrics and Power Train) and he or she work with buyers of his or her assigned commodity. This sourcer plans with each buyer the quantity of GSP that will be opened.

Buyers, as its name implies, are the persons whose main responsibility is to buy every part that cars use and negotiate in order to achieve lower prices.

The buyers and sourcers responsibilities are established by the HQ in Germany together with Purchasing General manager, Core Functions manager, Global Sourcing manager and Commodities managers.

After the description of involved actors in a GSP, I will describe how a GSP should work

Steps followed to open a Global Sourcing Process (GSP) in Theory

1- Decide together with buyers, the selection of suppliers that will take part during the process. This means that a list of potential new suppliers will be registered in a purchasing software named "Star system". This step should last two weeks and both buyers and sourcers analyze which supplier could be suitable for producing the part at a lower cost based on suppliers offers (constantly car parts suppliers offer their services to VW Purchasing Department) and personal buyer/sourcers experience.

2- Obtain technical information of the part (i.e volumes or savings potential) and send this information to possible suppliers (in order to let them know which part will be required if they (suppliers) are selected). This step is made by sourcers and it is expected to last maximum one week. (same week of step 3)

3- Obtain market rates offers from suppliers (if they are capable to produce VW's required volume and new cost) within established time. This step is made by sourcers and it is expected to last one week (same week of step 2). By comparing market rates, sourcers can know if there are potential parts that could be bought cheaper.

4- Obtain logistics costs (transportation, package, custom's costs, etc), in order to determinate the new price. This is made by sourcers. This step last one week

5- Receive, analyze and evaluate supplier offers and negotiate if the supplier's proposed price can be even lower. The negotiation part is performed by buyers. Registration of new prices and new supplier is made by sourcers. This step lasts three weeks.

6- Present results at local level (NAR) and in Germany (CSC) because in the end, Volkswagen Germany it's the one who authorizes suppliers change. The NAR presentation is made by buyers and sourcers explaining reasons why they choose the proposed supplier

(giving potential new price, proposed supplier localization, part characteristics, etc). This presentation is presented to the general manager of Purchasing, commodity manager and GS manager. Presentation preparation lasts two weeks. After this time, the processes start a waiting line named "Premeeting" and is when they wait for our colleagues in Germany to be determined if change is accepted or not. This waiting line lasts three more weeks.

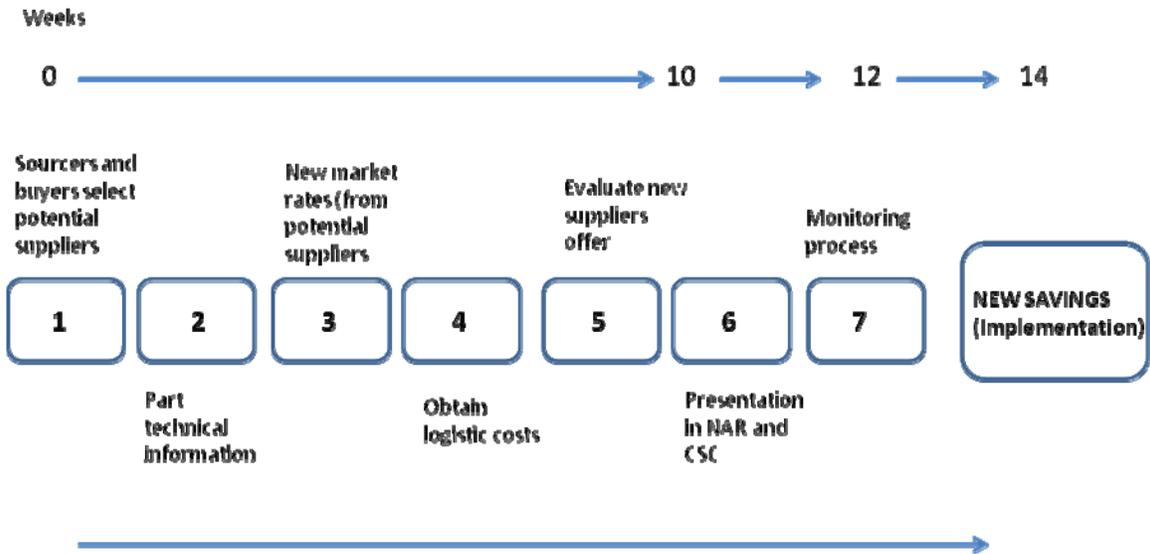
7- Elaborate a monitoring system and control of opened processes in order to know processes status. Buyers are the major responsible to make this follow up (with Logistics department, Quality department, Projects and Finance) because buyers need to change Purchasing orders when changing supplier. This means that buyers will notify the mentioned departments, who is the new supplier (accepted by HQ). Sourcers gather information of the total amount of determined (in HQ) GSP and how much of those processes are implemented in order to give a back up to buyers.

In general, Global Sourcing offers help to diminish buyers workload, and as a part of core functions it is expected from sourcers to assure that buyers are accomplish saving goals. This means that when a process is not closed, sourcers have to pressure buyers to close the process. Buyers and sourcers work together inclusively, and if one of them doesn't work properly, the other part will be affected directly to accomplish their own specific goals.

This functions (for both sourcers and buyers) were implemented this year, 2010. Before sourcers have to coordinate with Logistics, Finance, Projects and Quality and they had to give a tighter follow up. This follow up now will be performed by buyers.

The figure below shows the steps that have to be followed to open GSP

Steps to open a process in Global Sourcing



Source: Cedillo Lazcano, 2010

Bottlenecks and current GS process steps

Step 1- Although it supposed to work together sourcers and buyers for deciding potential suppliers, there are information that buyers have about a certain supplier that don't share with sourcers and viceversa because they don't think it's pertinent or because they think that information is already available. I have noticed this by observing my colleagues sourcers and buyers and randomly asking about the status of different GSP. This step takes last from three to four weeks because a lot of information (that not always will be useful).

Step 5- Receive, analyze and evaluate supplier offers. This step takes four to five weeks and sometimes more when there is not enough information that satisfies managers and therefore buyers and sourcers have to gather more information about the part or more information about the supplier or negotiate new prices. I recognized it by observing GSP status and also through local meetings and staff meetings when we (my colleagues and me) talked about GSP status, and how we were to solve the lack of information.

Step 7- Even though sourcers and buyers share responsibility of monitoring GSP, this does not happen in reality. Sourcers and buyers are more focus on opened processes (preparing them to be ready in NAR), instead of the ones that have been approved in NAR but not closed. Also buyers are not aware that sourcers give them a back up when a process is implemented, therefore there is a conflict because buyers think they have all the workload

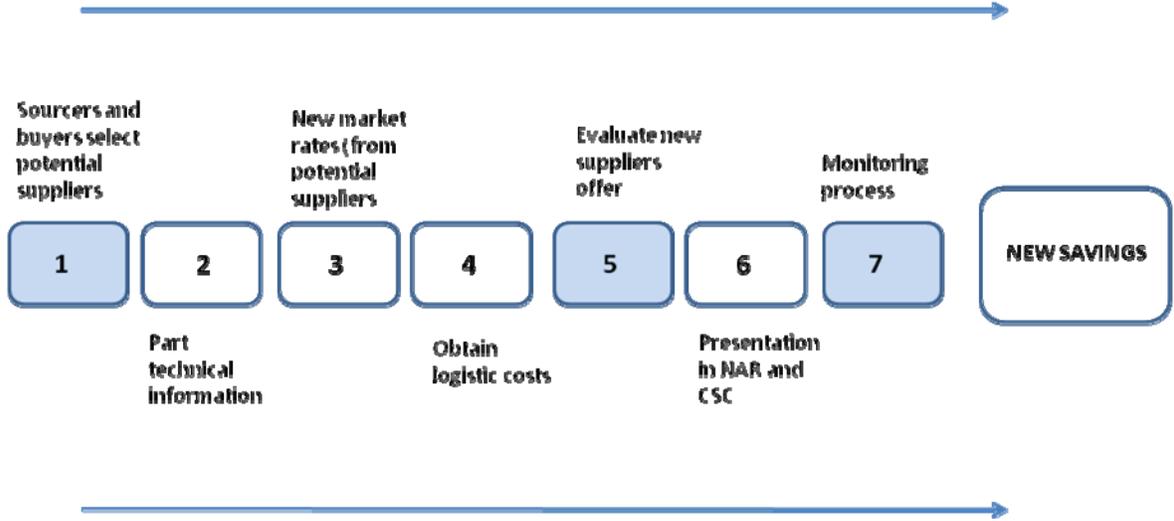
and that sourcers just “start” the process but no more. I recognize this also by asking in an informal way to a buyer from Interiors. However as a GS intern I observe that sourcers do more than that.

Seps 2, 3, 4 and 6 works normally on time. There are some exceptions due of the nature of some parts (like tires) but those exceptions do not imply a general problem in the whole process.

Until early November of this year ,2010, even though the expected total TO was over 800 Mio USD in Global Sourcing Processes (and 124 Mio USD in savings), many of those processes will be decided next year, achieving just 48 Mio USD in implemented GSP, which is just the 8% in savings, and not the 15% or 20% .

For a better understading, I made a diagram which shows where are the bottlenecks (in grey).

GSP Bottlenecks



Source: Cedillo Lazcano, 2010

2.1..1 Work inside Global Sourcing

The roles of the Global Sourcing Department are: collect information about specific parts, making reports about processes status (open, cancelled or determined), finding new suppliers, presenting in local and in VW Germany meetings and finding potential parts that would be suitable for a GSP. In Volkswagen all materials used for car production are divided in five commodities: Metals, Interiors, Exteriors, Electric and Power Train.

When a GSP has been opened, the maximum time should be ten weeks (from the moment of the opening until is presented in NAR meeting) and twelve until CSC meeting in Germany.

A NAR meeting is a meeting with all people involved in a specific process. These persons are buyers, chief of department (buyer's boss), sourcer, GS manager, and normally sourcers from United States (Chatanooga, where another VW plant has been established). All from same commodity.

A CSC meeting, includes GS international staff that evaluate and decide if savings per process are enough, or if the presented supplier (in NAR) has VW Germany's requirements.

Global Sourcing (GS) is an area inside Purchasing Department. It corresponds to the area of Central Functions that is considered as a strategic department.

Global Sourcing's work environment was very active because there was a continuous communication between my colleagues and with people from other departments, especially with the buyers.

I used to have weekly meetings and in those meetings all GSP status were discussed and also what we have to do with it (i.e. cancel, re.open, or change status). Also I was considered to take training workshops. Those workshops consisted in how to avoid waste in our work space using Lean Management.

My role in Global Sourcing was to gather information about GSP and analyze it. I had to collect reports from the Purchasing website and change them in order to make them easy to understand to my colleagues and to all the users (buyers, and Managers).

For example I had to avoid useless information and arranged the existing information. For example I had to convert all Euros into USD, specify which suppliers were in the process, what was the process name, which parts of the auto was considering the process, to which

car belonged those parts (Jetta Nachfolger or New Beetle) and how many weeks a process was opened.

After collecting and fixing all that information I converted that information in graphics. I used to make six graphics per commodity, which means that I made thirty graphics for all commodities. In those graphics were reflected information such as opened weeks, cancelled processes, Turnovers for every process and comparison among commodities.

Also when a process didn't have complete information or the status was not there, I had to ask to my colleagues what happened with that process.

I also wrote a manual of every task I had to do in order to convert tacit knowledge into explicit knowledge. It contains screenshots of every step I made, and because is visual is easy to understand.