Facultad de Ciencias Económicas y Empresariales

TRABAJO FIN DE GRADO

PROGRAMA INTERNACIONAL DEL GRADO EN ADMINISTRACIÓN Y
DIRECCIÓN DE EMPRESAS

Internal communication at Volkswagen Navarra, S.A.

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EXECUTIVE SUMMARY

Internal communication plays an important role in workers' job satisfaction; however, it is not an easy task to deal with for companies. This project explains the specific case of Volkswagen (VW) Navarra at the moment when the company was facing an internal communication problem.

One of the objectives is to analyze the opinion of VW Navarra's employees in relation to the different communication media and channels already implemented by the company. To achieve it, I designed and launched a questionnaire to workers of this company in order to gather primary data on the subject. After collecting the data, the present study statistically analyses it in an attempt to evaluate the extent to which the company is moving in the right direction as well as to be able to make some suggestions for continuous improvement.

KEY WORDS

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1. INTRODUCTION

Internal communication, in many ways, is the glue that holds an organization together. Without it, workers would be a collection of disconnected individuals each working individually in their own jobs. Conversely, with it, they are a unit with power far beyond the sum of all their parts.

Internal communication plays an important role in today's organizations and is an issue of growing importance for both practitioners and academic researchers. Communication makes information to flow and relates employees, supervisors and managers. However, not all companies, even today, are aware of the need to implement an effective, continuously updated and dynamic system of information management involving all members of the organization. Meeting communication requirements needs of all the different stakeholders in the organization and it should be a priority for any company. Success in achieving such objective requires, however, an organizational culture and values that motivate the parties to communicate.

Any attempt to evaluate the extent to which communication is implemented and how well communication satisfies employees has to rely on the opinion and direct answers of the own receivers of the information. This is what motivated me to design my own questionnaire which I launched to workers in the framework of my personal experience during an internship in Volkswagen (VW) Navarra as part of the human resources department, specifically the communication team. 911 workers of the company filled out the questionnaire. This sample size allowed me to generalize results to all workers, know current opinion on this topic and evaluate whether communication has an effect on workers satisfaction.

As Susanne Dellit (human resources director of VW Navarra) emphasized in an interview for an article, "It makes no sense to think of a factory with high productivity and very good quality, but in which at some point, those concepts could be threatened due to a complicated working environment".

The aim of this project is threefold: First, to understand and study the real case of VW Navarra's internal communication problem. Second, get to know workers' current opinion and degree of satisfaction with the different media and channels being used by the company; designing, launching and analyzing a questionnaire. The third and last one, give some recommendations to the company, contributing to improve the effectiveness of its internal communication system.

In regards to the structure of this paper, the second section is composed of a brief literature review about internal communication and its implications for job satisfaction in order to provide a proper contextualization.

The third section explains in detail, the particular case of VW Navarra.

The fourth section describes the questionnaire that I designed and personally launched to VW Navarra's workers, as well as issues regarding the appropriateness of the sample size.

The following section, the fifth one, presents the empirical analysis and results in relation to the implementation of communication channels and the degree of satisfaction of employees.

To conclude, the sixth part includes my critical and personal opinion and conclusions drawn from the whole study as well as my personal recommendations.

2. LITERATURE REVIEW

2.1. Internal communication

Communication within companies has always been present, since through it, information circulates and employees, supervisors and managers are related with each other. It is becoming one of the most dominant and important activities in modern and complex organizations (Harris & Nelson, 2008). But not all companies have been aware of the need to implement a strong, continuous and dynamic information management policy which involves all members of the organization.

Although internal communication has been defined in many different ways, for the purpose of the present study I will define it as the exchange of information and ideas among employees or members of an organization (social actors) to build trust and open relationship and to create understanding (Bovee & Thrill, 2000; Vercic et al., 2012).

Internal communications is an immature (Smith, 2005) but growing specialism (Tench & Yeomans, 2006). There is evidence of greater investment - "most organizations have either maintained or increased spending in internal communications in the past three years" (Communication ROI Study, 2005/2006). Still, there are companies which underestimate the power of internal communication at their peril (Smith, 2005).

Internal communication contributes, to the success of organizations (Welch & Jackson, 2007; Watson Wyatt Worldwide, 2005/2006; Grunig, 1992; Clampitt & Downs, 1993) in terms of tactics and increasingly in terms of strategic level (Barnfield, 2003), where the role of managers is crucial (Barnard, 1966). According to Gray & Laidlaw (2004), internal

communication influences organizational overall operation and competences by engaging employees in organizational success. Employees are described as "an organization's most important public" (Therkelsen & Fiebich, 2003) as, after all, an organization functions through its people, who in turn function through communication (Brennan, 1974). Through communication employees can make sense of their organization and get to know it better (Haslam, 2000). Therefore, some objectives of internal communication are to convey corporate messages, inform on what happens within the company, motivate and to establish an effective line of communication between employees, management and the various departments of the company (Muñiz, 2010).

Even so, it is essential to have a carefully calculated and well-conceived internal communication strategy in order to become the quintessence of a successful and lasting business (Neupert, 2015). Techniques of communication are not only an important part of any organization but also the preeminent problem of any if they are not controlled (Lazear & Gibbs 2014).

The positive consequences of internal communication are undeniable. Some of those are that well-managed internal communication reduces the height of the organization (the number of hierarchical levels) and that it attenuates the negative effects of company size. Internal communication is not an end in itself but one of the instruments and basic means and an enterprise's management resource. The first objective must therefore be to publicize clearly the company itself (your project) in order to involve all individuals in the company's success (Garcia Jimenez, 1998).

According to Robbins (1999), internal communication is divided into three types:

- *Upward communication*: This type of communication flows to a higher level in the group or organization. It is used to provide feedback to the above, inform progress toward goals and introduce them to current problems. Here managers can know how employees feel about their job, their coworkers and the organization in general. Emails, staff interviews, and suggestion box and feedback group are used as upward communication channels.

- *Downward Communication*: Here communication flows from one level group to a lower level one. It is used by leaders and managers to assign goals, provide instructions, inform subordinates about policies or procedures and also to feedback aspects of their performance. Among other channels, leaders can use to communicate with their staff formal and informal meetings, intranet, group dynamics or personal interviews.

- *Lateral communication*: Communication takes place between members at the same level. Direct verbal communications, meetings of informal groups, emails and feedback in group meetings are mostly used.

Face-to-face communication has been valued as the richest among all types of communication channels (Byrne & LeMay, 2006; Berger, 2014). Byrne & LeMay (2006) add that employees perceive greater satisfaction when this channel is used. On the other hand, the boundless use of communication through email is associated with lower levels of job satisfaction (Merten & Gloor, 2009).

2.2. Internal communication and job satisfaction

Job satisfaction has been defined in many different ways; most of them based on Locke's (1976) original definition "a pleasure or positive emotional state, resulting from the appraisal of one's job or job experiences".

There are numerous determinants of job satisfaction such self-perceived variables on income, job security, effort... (Sousa-Poza & Sousa-Poza, 2000). Besides, it has been extensively demonstrated that internal communication influences job satisfaction (Anderson & Martin, 1995a; Downs & Adrian, 2004; Downs & Hazen, 1977; Madlock, 2008; Trombetta & Rogers, 1988; Muchinsky, 1977; Jacobs et al., 2015), which in turn can provide competitive advantages for the organization (Gray & Laidlaw, 2004).

With active and assessable communication, employees better understand their job and are more connected to it. This leads to better performance and higher job satisfaction (Downs & Adrian, 2004).

3. VOLKSWAGEN NAVARRA'S CASE

This study is closely related to my personal experience in Volkswagen (VW) Navarra, one of the 119 factories that the VW Group has worldwide (Appendix A). This group is the European leader in the automotive market and the second largest manufacturer worldwide. The group is composed of twelve brands: Volkswagen, Seat, Audi, Skoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, MAN and Scania.

VW Navarra is located in the industrial area of Landaben in Pamplona (Navarra) and, has 4,542 workers. Since 1984, the Polo is produced without interruption. In 2015, VW Navarra produced a total of 298,358 cars and 91% of them were exported. These figures made them leaders of Spanish production and exports.

The factory is divided into six major organizational areas: Product technical area, Production, Logistics, Quality, Human Resources and Finance. The department of Communication and External Relations is part of the Human Resources area. It encompasses three different fields: Environment, responsible for managing all aspects and activities of VW Navarra which are related, directly or indirectly, with the protection of the environment and energy; Governance, Risk, Compliance and Corporate Social Responsibility, implementing measures to ensure that its employees and managers always behave according to rules, laws in force and the Group's values; and finally, Internal and External Communication.

Functions of the field of communication are divided into two main blocks, internal and external communication. The tools that they have for the external communication are the factory visits, web page, and press releases. For the internal communication, they work on a variety of tools such as Polo Zoom, A Punto magazine, intranet, app, Liga Polo, notices to the staff as well as on press releases and the web page.

During my internship, I have been the main coordinator of "Liga Polo", VW Navarra's downward and face to face internal communication channel. My main job consisted on the following task: first, I was responsible for developing presentations on topics of interest for workers; second, I had to deliver the presentations to first line supervisors of all the workshops who then communicated the ideas to employees in their charge; third, I had to evaluate internal communication as a way to improve employees' working environment.

As I really got engaged with this project and thanks to my close relationship with the Communication team of the organization, I decided to deeply study and gather information about a particular communication problem that VW Navarra was facing. That communication problem is explained in the following points.

3.1. Opinion Barometer

The Opinion Barometer is a survey conducted annually by the VW Group in all its factories to promote and improve the state of opinion about the company and the working environment of its employees in order to become the most attractive employer, one of the four 2018 Strategy objectives. The main objective of the Opinion Barometer is to identify the aspects that from workers' point of view are worse and need to be improved.

Figure 1. Volkswagen's group strategy

Source: Volkswagen Navarra

Since 2008, six editions of the Barometer have been carried out in VW Navarra; being the last edition in 2014. It consists of twelve questions (Appendix B), eleven fixed and one variable, covering different areas, such as: information and communication; quality and processes; team work and leadership; workload and satisfaction in the workplace. Workers express their opinion with each of the raised claims answering with a 5 point Likert scale ranging from totally agree to totally disagree.

3.2. Problem detected in Volkswagen Navarra

Once all the responses are gathered, it is time for the results analysis phase. The general satisfaction index with each question is calculated. For that index, standard values are given to each of the five response options (1 totally agree, 0.75 agree to a large extent, 0.5 only partly agree, 0.25 partially disagree and 0 totally disagree). Then, the used formula is the next one:

$$Satisfaction\ Index = \frac{\sum(Value\ of\ the\ scale\ \times n^\underline{o}\ of\ responses\ on\ that\ scale)}{N°\ of\ participants}$$

Graph 1 presents the Satisfaction Index Evolution since 2008 until 2014. It is worth stressing the recurrent poor result in question 2: "*I consider myself knowledgeable on the fly and project of Volkswagen Navarra. Do you think that you are well informed about current issues (corporate strategy, situation of the company, new products, etc.)? Do you receive the necessary information to perform your job? We mean information on the company and work*". The question of to what extent employees feel well informed ranked the second worst result in 2014 (only above the eleventh question that deals with the usefulness of the meeting used to comment Barometer results) and what is more important and worrying, it presents a decreasing trend since 2011 (see Graph 1).

Graph 1. Opinion Barometer's Satisfaction Index Evolution (%)
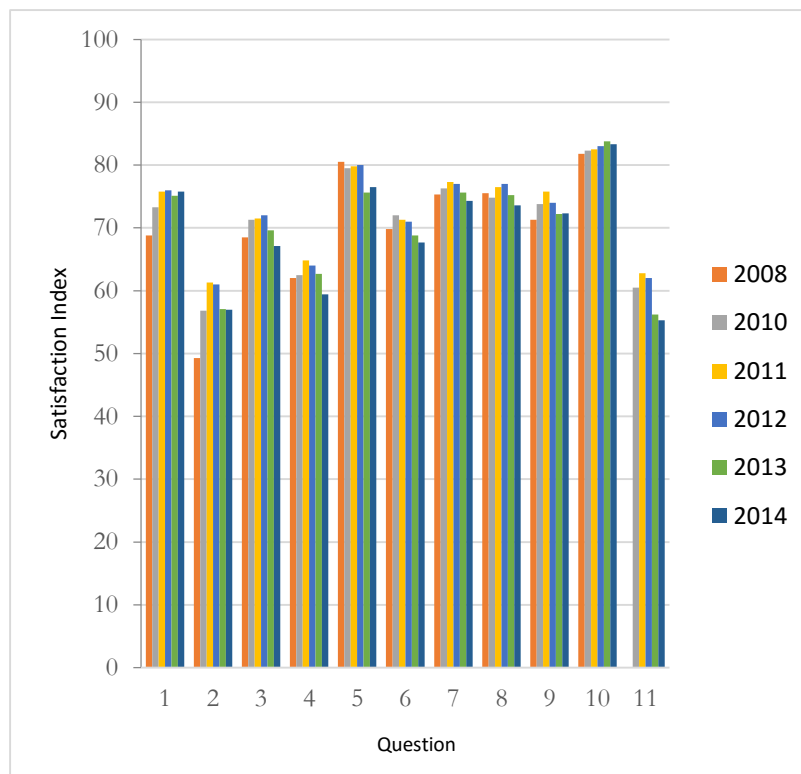
The final phases of the Barometer are the discussion of the results and the implementation of the measures. Susanne Dellit emphasized the importance of working hard to improve in the short term aspect such as the motivation, work environment, training and communication, especially internal one, in all areas and workshops.

3.3. Internal Communication Strategic Plan

The Internal Communication Strategic Plan is a key tool in an organization, lying within the strategy of the company. Its importance consists of its ability to convey the strategic vision, objectives, projects and changes of the organization; to be the connection between the internal and external communication; to define target audiences and approach each optimally; to be an element of internal marketing for the enterprise; and also to be a tool for managing change as it has a clear effect on the work environment.

Despite the importance of working to create a good strategic plan, it is only a few years ago when VW Navarra started consciously to work hard on it. In 2012 they decided on a workshop to make some interviews to workers to know their opinion on this topic in order to define change measures. Notwithstanding, as it can be observed in Graph 1 the opinion on this topic did not improve in the next years.

In 2014 the Communication team of VW Navarra decided, among other things, due to the remarkable and worrying low result obtained in the Barometer of Opinion in the issue of

communication, to organize another workshop with the objective of developing the 2015 Internal Communication Strategic Plan.

On this occasion, that workshop consisted of a series of meetings in which a group of people from different areas of the company exchanged information, ideas and suggestions. They were engaged to explore, study and develop communication media and channels.

Therefore, the main aims of the 2015 Internal Communication Strategic Plan at VW Navarra were to analyze the internal communication of the company in that moment, study the effectiveness of existing tools, identify problems and optimization points, and define new communication channels, when necessary, adapting to technological advances in the field of the communication.

To promote its internal communication, VW Navarra had into account three interrelated issues. The first one involves the organizational climate and culture. The organization should be the first to bet for, accept and encourage internal communication. Second, it must establish clear definitions on what needs to be communicated, by whom and to whom. The lack of communicating is devastating but the uncontrolled and massive information is not the solution. The organization cannot forgive that they have to follow guidelines about what and how to pass information. The third issue is to decide and define the tools that the organization will use to translate the information.

VW Navarra, despite its size and despite having sometimes difficulties, since a long time ago, has worked hard to establish a climate of openness. Their objective is that the organizational culture of the company, embraces internal communication. They are continuously working on this issue not to leave it aside in any moment. Indeed, it is found among the short term objectives of the company.

What needs to be communicated, by whom, when and how, results more difficult than it seems at the first glance. To admit, before this workshop was held, VW Navarra was not very flexible with this difficult issue. After the workshop, one of the set objectives was to try to be more transparent, quick and to expand the receivers of important information. There is information which directly affects the worker such as: employment status, working conditions, work method of the organization as a whole... That needs to be immediately communicated to all parties involved.

The last issue was to work and improve the communication tools, the way the organization could reach the workforce. They tried to promote and strength exiting media and channels and even think of new possibilities.

3.4. Media and channels

The measures developed as part of the 2015 Internal Communication Strategic Plan on the media and channels, are presented into two groups. First, already existing communication media and channels are described. Then, I describe a new communication channel that was created.

Improved or relaunched existing communication media and channels

Notices to the staff: It is considered the fastest media of the company and it is used whenever something important has to be communicated to the entire workforce. Before 2014 it was not organized by the communication team but by a secretary who had to send them to other secretaries to inform people of their office. This meant that the communication chain was very long and that sometimes it was broken down before it could reach the whole workforce, especially blue-collars. The most significant change in order to improve it and to make out the most of it was the change in the management of this media. From 2015 on, the communication team would be in charge of it, changing the design and giving to it a more frequent use. They would send the notices by email to all workers with personal internal email account and would ensure that they also reach production line workers by other means.

Newsletter "Polo Zoom": It is a printed communication media on a weekly basis for all workers with current information about the factory, brand, group, consortium.... A new, modern and double-sided design was launched in November 2014. The new version included discounts for workers, the weekly menu, benefits for employees and a weekend agenda with possible plans to enjoy.

"A Punto" magazine: It is a quarterly magazine (4 per year, one each 3 months) delivered by letter post to all workers. The main improvement made on it was to increase the visibility of direct labor force on it as workers felt not identified with stories of senior management. A nearest wording with fewer technicalities in addition to an improved design and photography was used.

Press releases: It is a written communication directed at members of the news media for the purpose of announcing something ostensibly newsworthy. In advance, this information was sent senior managers, but only to them. It was though that in order to improve the transparency it should be received by more workers, deciding to send them, not only to senior managers, but to all workers with a personal internal email account.

Intranet: It is an information channel as well as a working tool with information about the different departments of the factory. The direct labor force has access to it through computers in the rest areas. As the search of information through it was confusing, it was improved with a drop-down menu and the obsolete information was updated.

Information panels: Physical place that gives support to the different communication contents. Placed on the entrance of the workshops, there was not a standard way of hanging information and thus, they had a dirty and disordered image. Taking into account that for the direct labor force (operators, workers on the production line) this was the most important information channel, notorious improvements were made on them. Following the style of SEAT, a huge inversion was made to place closed panels, restricting the access to people responsible for that. Each group of panels consist of four: one for the company, another for workers and two for the works council and trade unions.

Web page: Although it may be considered mostly as an external communication channel, the window that the organization has to the exterior, the communication team decided to rethink it in a different way. They decided to relaunch this channel in December 2015. The idea was to include a section about "our workers" with personal stories and experiences with the Polo where workers could feel reflected and part of the organization. In addition, a more attractive design presents interesting notices, relevant data, and history of the factory. They wanted to increase the functions of this channel to serve as well to internal workers.

"Liga Polo": It is the face to face internal communication channel of the factory, mostly directed towards the direct labor force. First line supervisors are in charge of making a weekly meeting with workers in their charge where relevant information is transmitted to them and where they can talk.

Although its good functioning for years, due to the huge demand of cars and the tight daily production, some workshops are finding impossible to stop the production for the time reserved to this meeting (twenty minutes). Thus, for some time now, in some workshops, the information has been blocked up in the first line supervisors without reaching the target public.

Few months ago, the management of this channel has been transferred to the communication team. They have started working on it, searching for possible solutions.

New communication channel

In addition to all these improvements, the communication team stated that communication nowadays is not like the one in the past and because of that the organization had to adapt to this new reality. Due to that, they valued three different proposals with a low economic cost compared to the high impact that could have on the organization and on workers.

Finally they bet for making progress in the field of new technologies, creating an **App**. Its creation was a novelty at the local level (for workers of VW Navarra) and internationally, since virtually none of the 119 factories of the Volkswagen Group had developed a communication tool as this one. In fact, some factories in Germany, Mexico and Argentina are asking VW Navarra about the process of creation and implementation of the application. Besides a direct access to the new website of the company, it provides the added value of providing a special area for workers, where they can consult the working calendar, the weekly menu, discounts and special offers, the newsletter, magazine and much more. With it, VW Navarra can inform and send important notices reaching the 100% of the workforce in a fast way, eliminating barriers and being nearer to the direct workforce achieving to inform them immediately.

After all, VW Navarra's philosophy is "if the employee feels well informed, not only will be more motivated, but will remain focused resulting in a committed and engaged worker". That committed worker will be the best ambassador that the organization could have.

In Appendix C there are examples of each of these internal communication media and channels.

Figure 2 presents the Internal Communication Flow summary. The internal communication media is organized taking into account the publication periodicity and the urgency of its news. In the case of the channels, these are organized having in mind the most important public of each. The different colors of the asterisks mean whether for the 2015 Internal communication strategic plan, those media and channels have been improved, relaunched or if are new as in the case of the App. All of them are internal communication tools except for the press releases and the web page that can be considered external as well.

Figure 2. Internal Communication Flow Summary
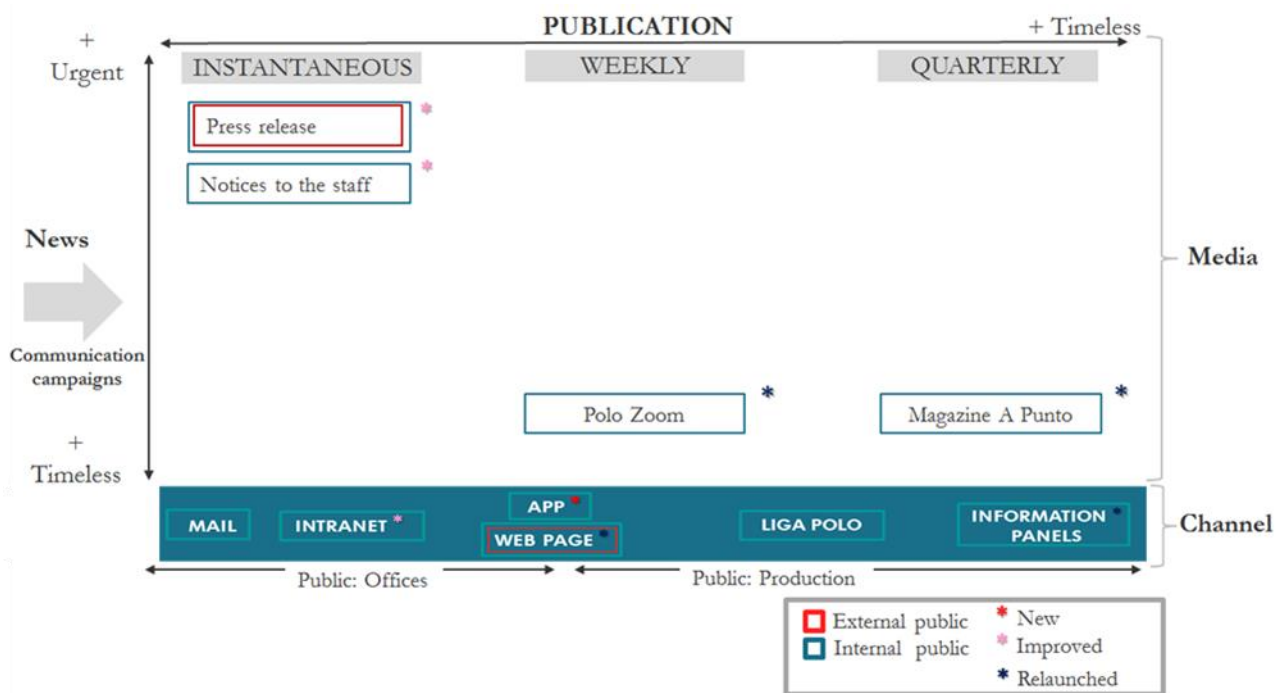
3.5. 2015 Annual costs of internal communication

Table 1 presents the 2015 annual cost of the internal communication. VW Navarra not only talks about the importance of this issue but it also invests a large amount of money on it, trying to improve it.

Table 1. Summary of 2015 internal communication cost

Media and channel	Cost (€)
A Punto magazine	45,000 €
Polo Zoom	4,500 €
Information panels	43,500 €
Web page	10,800 €
App	6,200 €
TOTAL	**110,000 €**

The A Punto magazine is the most expensive media for the company due to its high quality, the fact that it is printed using professional printing and that it is sent by post mail to each worker's home three times a year. The Polo Zoom has an annual cost of 4,500€ mostly due to the printing cost. These two cost amounts are quite stable during years.

The most important inversion made in 2015 was the purchase of the closed information panels. In the factory there are eleven groups of panels and each of them is formed by four panels. This implied a huge cost that the company had to face in 2015.

The creation of a mobile App is a very complex process, but one that can bring great benefits to the company after implementing it. Among other things this is the reasons why VW Navarra bet for this idea. For the company, the design and creation of this new communication channel had a cost of 6,200€. Additionally, the cost to relaunch the web page was 10,800€.

In 2015, the total cost of internal communication resulted in 110,000€. This amount corroborates the importance that this company gives to its internal communication and to what extent they invest on it. The total cost faced in 2015 has been very notable due to the huge investments made mostly in the information panels, web page and App. As for previous years to 2015, the cost of 2016 internal communication is not expected to be so significant.

4. THE RESEARCH

Once the problem of the company has been explained and individually explored the measures used to improve workers' satisfaction in relation to communication, next this paper presents my personal contribution to the analysis and to the continuous improvement of VW Navarra's internal communication system. It reflects the current situation and presents potential improvements.

4.1. Methodology

As I have mentioned before, I have performed a cross-sectional research aiming to know workers opinion in 2016 about the internal communication of VW Navarra and especially to detect if workers appreciate, recognize and value the effort made by the company and the improvements being made on them.

In order to collect primary data and updated information, I designed, developed and launched a questionnaire. For designing the questionnaire I took into account advices and recommendations made by the communication team and their requests. Well known standard questionnaires such as "The Communication Satisfaction Questionnaire (CSQ)" developed by C. W. Downs and Hazen (1977) were also consulted before.

The full English version of the questionnaire is presented in Appendix D although the original one was in Spanish in order to be understood by all workers.

The questionnaire was compound by two different types of questions, open-ended or unstructured questions (in which workers could write what they wish) and close-ended questions. Close-ended questions result in several communication items and characteristics

of respondents. Communication items can be classified into three different types of categorical variables: dichotomous variables (yes, no); nominal rating scale variables (never, sometimes, and always); 7-point Likert-type scale, ranging from value 1 meaning completely dissatisfied to 7, completely satisfied.

Variables are typically classified according to their level of measurement as nominal, ordinal, interval, or ratio (Treiman, 2009). My survey contains both nominal and ordinal variables. Yes-no questions as well as some questions on respondent's characteristics, such as gender or occupation, are nominal variables as they consist of a set of mutually exclusive categories where order is not implied. Scale-communication items are ordinal variables, since they can be arranged in an order.

The survey was calculated to take less than 10 minutes to be completed. The introduction to the questionnaire can be found in Appendix E.

4.2. Sample

The population of this research consists of all workers in VW Navarra, a total of 4,542 workers. The workforce of this organization is distributed across different workshops and job positions (see Appendix F).

The used sampling technique was the stratified random sampling, which is the appropriate sampling strategy used when the characteristics of the units of the population are different (Qian 2010), as in this case. The population was divided into two relevant strata based on one distinctive attribute: job category.

For the analyses, I decided to study responses separately in order to have a clear and more reliable idea of each of the two groups of workers. For this reason, I decided to treat both groups separately as two populations and draw a random sample of each of them. The specific goal of sample selection for quantitative research designs is to obtain a sample that is representative of the population (Polit & Beck, 2006). On the one hand, there are 1,089 workers that I will call white-collar employees (including managers, office workers and indirect labor force) and on the other hand, 3,453 blue-collar employees or assembly line workers (direct labor force). I follow Leaderer's (1987) definition of blue-collar workers as those who perform primarily physical work and whose career paths are relatively restricted. The name "blue collar" originally derives from the overalls worn by shop floor workers in some US factories. As for white-collar workers, they are employees working in an office or in a professional environment or semi-professional environment (Hammer & Ferrari, 2002).

To ensure the reliability of my results, the size of the sample for each stratum was carefully calculated in advance, following the formula (Cochran, 1963):

$$n = \frac{N}{1 + \dfrac{e^2(N-1)}{z^2 pq}}$$

where,

- n is the size of the sample, the unknown quantity;

- N is the total population selected;

- p and q correspond to the values of population variance, equivalent to 0.5 (maximum variability);

- z is the confidence value, with a value of 1.96 corresponding to a 95% confidence interval;

- e is the value of the error; .05 in this case or ±5% precision.

Accordingly, to be statistically correct and to be able to generalize, the minimum sample size required for white-collars was 248 responses. 346 responses was the minimum needed for blue-collars.

With the help of IT personnel, the questionnaire was introduced to an internal system of VW Navarra and a massive email was sent to all white-collar employees requesting their volunteer participation. This way I reached all white collar workers, finally, obtaining a total of 405 responses of people belonging to this group.

In the case of blue-collar workers, population proportions regarding the distribution of blue-collar workers across different functional areas or workshops were carefully met. I took into account the six different workshops; press shop, body shop, paint shop, engine shop, assembly shop and final revision shop and the number of blue-collar workers in each of them, to get a proportional sample. Workshop area is the second strata applied to gather the data, since I approached each of them randomly and separately. Collecting data from blue-collar employees was the most difficult part. I was personally in charge of going to each of the workshops and meeting workers, randomly and individually. I explained to them the aim of the questionnaire and how they had to fill it delivering in that moment the questionnaire on a paper. Once completed, I collected myself the responses. This was the most reliable way to ensure random blue-collars responses. Participants were advised that

their responses and identity would remain anonymous. I obtained 506 blue-collar responses.

Thus, the means to participate were through the Intranet, on paper and additionally by the App.

The needed minimum sample size was surpassed for both group of workers. The final sample size for white-collar workers was of 405 and the sample size of blue-collars of 506. This resulted in a total of 911 responses of VW Navarra's workers.

4.3. Techniques used to analyze data

Stata, a general-purpose statistical software package, was used in order to analyze survey responses. Each response category for close-ended question has a number, or code, associated with it. I used these codes for my data analysis on the computer. The first step was to transform the Excel file where I had the data to the format needed to work with Stata. Once the program read the survey data, I made a considerable work to clean up the data, transform the variables and label them. I wrote and stored all commands for the data management and the statistical analysis in a text file called Do-file. After all data-management tasks were accomplished, I started with the empirical analysis. Commands include descriptive analysis, Chi-square test for the relationship of categorical variables, t-test and a regression analysis. In all the analyses performed the used significance levels were $p \leq 0.01^{***}$, $p \leq 0.05^{**}$, or $p \leq 0.10^{*}$.

5. EMPIRICAL ANALYSIS AND RESULTS

This section presents the empirical analysis and results of the questionnaire. It is divided in different subsections depending on what the questions tried to measure and the type of analysis performed. The first group of variables measures the frequency of use of each media and channel. The second group evaluates whether workers were aware of the changes the company had recently made on existing media and channels as well as workers opinion. The third group measures the level of satisfaction of workers with each media and channel. Finally the results from regression analyses are presented. All the analyses have been performed separately for blue-collar employees and for white-collar employees.

5.1. Frequency of use

Table 2 presents the description, descriptive statistics and Chi-square test for categorical variables that measure frequency of use of the communication media and channel. The percentage of responses for each category and group is shown. The number of observations varies a little across variables due to missing observations.

Table 2. Frequency of media and channel use

Variable name	Description	Descriptive statistic				χ² test
		Blue-collar	N	White-collar	N	
Notices to the staff	Do you read the Notices to the staff? (1)Never.................................. (2)Sometimes........................... (3)Always.................................	% 0.79 42.38 56.83	505	% - 16.13 83.87	403	77.25***
Polo Zoom	Do you read the Polo Zoom? (1)Never.................................. (2)Sometimes........................... (3)Always.................................	% 1.79 38.49 59.72	504	% 0.25 24.07 75.68	403	27.86***
A Punto magazine	Do you read the A Punto magazine? (1)Never.................................. (2)Sometimes........................... (3)Always.................................	2.39 35.19 62.43	503	% 1.49 30.77 67.74	403	3.20
Intranet	I use the Intranet (1)Never.................................. (2)Sometimes........................... (3)Always.................................	% 26.24 45.73 28.03	503	% 0.25 27.72 72.03	404	213.57***

According to results presented in Table 2, white-collar workers use each of the four channels more frequently than blue-collar workers. Specifically, 83.84% white-collars read always the notices to the staff, 75.68% read always the Polo Zoom, 72.03% use always the Intranet and 67.74% read always the A Punto Magazine. This amount decreases to 56.83%, 59.72%, 28.03%, and 62.43% respectively for blue-collars. Here it is worth mentioning that 26.24% of blue-collars say that they never use the Intranet and 45.73% of them make an infrequent use of it. This is a logic result taking into account that most of them cannot leave their job position on the assembly line to consult the Intranet on the computers.

For blue-collars, the ranking of channels from the most used to the least is: A Punto magazine, Polo Zoom, Notices to the staff and in last position the Intranet. In the case of white-collar workers the ranking is as follows: Notices to the staff, Polo Zoom, Intranet and A Punto magazine.

Then, the Chi-square test is used to evaluate whether there is a significant relationship between the frequencies of use of each communication media and channel and the type of employee (white-collar or blue-collar employee). This test is appropriate to evaluate whether there is a relationship between two categorical variables and doesn't require normality.

The Chi-square test asserts that for all media and channels except for the case of the A Punto Magazine, there is a significant relationship between the frequency of use of the channels and the blue/white-collar classification. These results may be interesting from the point of view of the organization as they have identified that blue-collars use communication channels other than the A Punto magazine to a less extent than their white-collar counterparts. On the other hand, the A Punto magazine is similarly used by both groups of workers which results to be very positive once known the high cost that this media supposes.

5.2. Awareness of changes and opinions

Next, I studied whether workers of VW Navarra are aware of the communication changes recently implemented by the company (explained above) and whether they recognize the improvements and the effort recently made by the organization on this matter. This is illustrated in the Table 3 below.

Table 3. Awareness of changes

Variable Name	Description	Descriptive statistic				χ^2 test
		Blue-collar	N	White-collar	N	
Press releases	For months the press releases are sent to workers before than to the media via email, app and panels, are you aware of this change? (1)No.. (2)Yes...	% 48.21 51.79	502	% 33.58 66.42	405	19.73^{***}
Press releases change	Do you think this is positive? (1)No.. (2)I am indifferent............................. (3)Yes...	% 4.74 10.52 84.74	485	% 1.24 5.71 93.05	403	16.38^{***}
Information panels	In December 2015 all information panels of the factory in which different information is presented such as: Volkswagen information, press, union sections and workers advertisements were changed. Are you aware of this change? (1)No... (2)Yes...	% 9.50 90.50	505	% 5.69 94.31	404	4.53^{**}
Information panels change	In the case you have answered yes, you consider the change (1)Negative.. (2)Leaves me indifferent.................. (3)Positive...	% 1.53 14.44 84.03	457	% 0.79 12.57 86.65	382	1.6798
Website	In December 2015 the new version of the factory website www.vw-	%	505	%	404	8.20^{**}

		%		%		
	navarra.es was launched. Do you know it? (1)No... (2)Yes..	52.88 47.12		43.32 56.68		
Website change	I think that the change is (1)Negative.. (2)Leaves me indifferent.................... (3)Positive...	% - 12.88 87.12	233	% - 14.78 85.22	230	2.3193
App	On January 18, 2016 the App for Android, IOS and Blackberry was launched. Do you know it? (1)No... (2)Yes..	% 27.18 72.82	504	% 20.05 79.95	404	6.25^{**}
Download	Have you downloaded it? (1)No... (2)Yes..	% 54.00 46.00	500	% 47.62 52.38	399	3.62^{*}
Communication	Overall, the communication you receive from the company in the last two years (1)Has gotten worse........................... (2)Remains the same......................... (3)Has improved...............................	% 6.39 35.53 58.08	501	% 2.74 19.65 77.61	402	38.74^{***}

On this table, the description, the descriptive statistics and the Chi-square test for categorical variables that measure awareness is presented. For each variable and both for blue-collars and white-collars, the proportion of responses for each category is shown. The number of observations varies a little across variables due to missing observations and mostly due to filter questions asked before.

To comment on these percentages, I will start with media and channels that already existed before the workshop hold in 2014 and that have been improved or changed.

Starting with the press releases, only half (51.79%) blue-collar workers knew that the information published on the news is first communicated to workers. Neither a high percentage of white-collars knew that. However, the Chi-square test reveals that there is a significant relationship between blue/white-collar classification and awareness of this change. Nevertheless, a very high proportion of those who are aware of the change value it as positive, 84.74% blue-collars and 93.05% white-collars.

On the other hand, the change made on the information panels presents the highest awareness among all workers (90.50% and 94.31%). Besides, 84.03% of those blue-collars who answered "yes" and 86.65% of white-collars value the change as positive. In this case, there is no significant relationship between the job classification and the opinion on the

change. Therefore, we can conclude that this change has been notorious for everyone, regardless of the kind of worker.

As with information panels, the majority of workers who knew the new version of the website value it as positive, independently of the kind of worker 87.12% and 85.22%, respectively. But surprisingly, this new version is not much known among workers. Quite a lot, approximately half of them, answered that they did not know of its existence.

Next, results for the new communication channel, the App, are analyzed. 72.82% of blue-collars and 79.95% of white-collars know the App, even if, only half of the workforce 46% and 52.38% respectively have downloaded it. Both variables are significantly related to job classification but it is worth noticing that the amount of downloads is less related to job classification than the knowledge of this new channel. Still, these results are quite positive taking into account that this communication channel was launched in January 2016.

When asking about the opinion on the communication given by the company over the last two years, responses vary remarkably. Job classification is significantly related to answers to this question. According to 77.61% white collars, communication over the last years has improved in contrast to 58.08% of blue-collars that think so. Still, few people in both groups state that it has gotten worse. I can summarize these results as follows: white collar workers tend to have a more positive view about the improvements made by the company on internal communication as many of them (77.61%) really think communication has improved. Blue-collars workers have a different opinion about it. Although more than half think that it has improved (58.08%), which somehow demonstrated that the company is doing well, 35.53% do not recognize any change in communication. According to these results, it seems blue-collar workers are much more difficult to satisfy and to convince. On the other hand, the fact that only a few blue-collars say that communication has gotten worse can be interpreted as positive.

Nevertheless, there is still room for improvements and in order to obtain better results, my recommendation is that they should be more blue-collars' oriented.

Next, Table 4 describes the Liga Polo, the face-to-face communication channel implemented by VW Navarra.
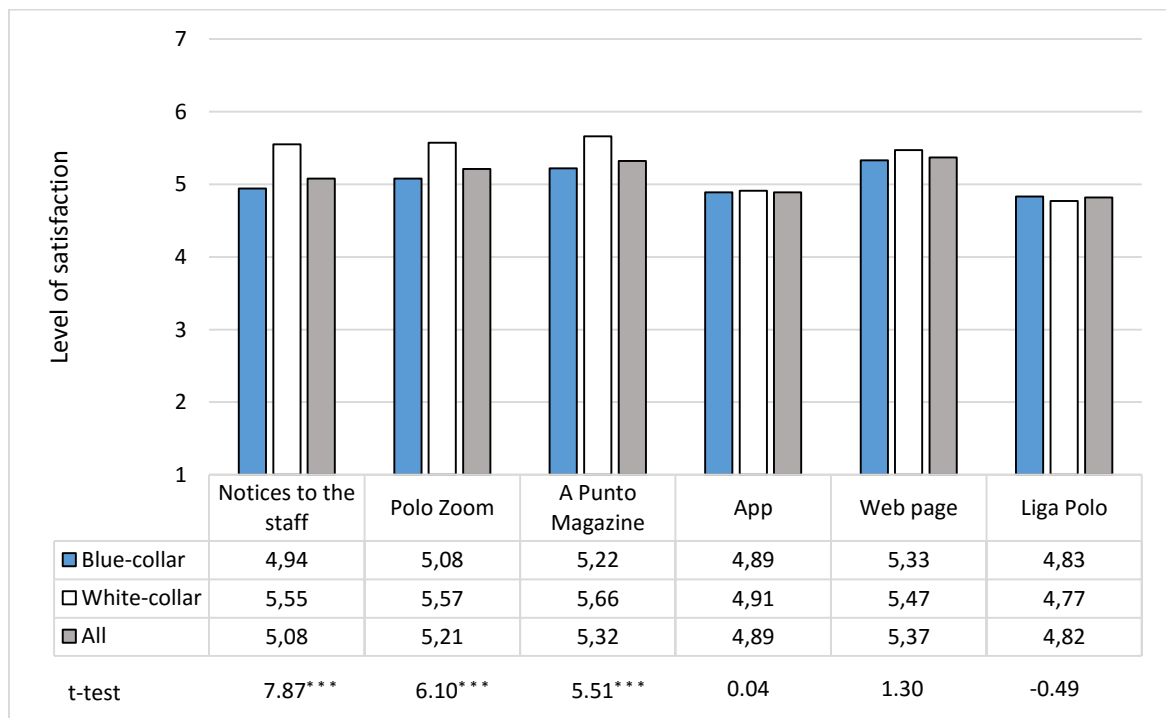
Table 4. Face to face communication channel

Variable Name	Description	Descriptive statistic				χ² test
Liga Polo	Liga Polo, do you consider interesting doing it? (1)No... (2)Yes...	% 7.20 92.80	500	% 15.62 84.38	397	16.11***

Table 4, shows which percentage of workers consider or do not consider interesting to do the Liga Polo. Results for this channel are apposite to the previous cases. In this case, blue-collars are the ones who exhibit a higher percentage for the yes, 92.80%, compared to the 84.38% for white-collars. This is an important result because this communication channel was specifically designed for blue-collars as a way of transmitting and explaining relevant information to them and trying to make them feel as part of the company.

5.3. Level of satisfaction with specific media and channels

Graph 2 shows and summarizes the reported mean level of satisfaction with each media or channel by blue/white classification, the global mark for each of them and the t-test.

Graph 2. Mean level of satisfaction by job classification for each media and channel

	Notices to the staff	Polo Zoom	A Punto Magazine	App	Web page	Liga Polo
■ Blue-collar	4,94	5,08	5,22	4,89	5,33	4,83
□ White-collar	5,55	5,57	5,66	4,91	5,47	4,77
■ All	5,08	5,21	5,32	4,89	5,37	4,82
t-test	7.87***	6.10***	5.51***	0.04	1.30	-0.49

In general, blue-collar workers present a lower level of satisfaction in all media and channel compared to white-collar workers. However, it is worth pointing out that it is in the other way around for the case of Liga Polo.

Blue-collars exhibit the highest level of satisfaction with the Web page followed by the A Punto Magazine. Interestingly, this last media is the one that blue-collars use the most, which corroborates the reliability of the responses. Next, the Polo Zoom, Notices to the staff, App and finally Liga Polo are in the rank. In the case of white-collar workers, the highest level of satisfaction is associated with A Punto magazine, confirming the importance of this media in the organization, followed by the Polo Zoom, Notices to the staff, Web page, App and finally Liga Polo.

The t-test is informs on the equality of means. To be able to apply the t-test, first I checked normality for these variables. All of them resulted to be normally distributed so I could apply the t-test, to determine if the mean level of satisfaction for each media and channel is the same for the two groups of workers.

There are three cases in which the means are significantly different. Indeed, they are highly significant. It is the case of Notices to the staff, Polo Zoom and A Punto Magazine as the *p*-value in Pr $(|T| > |t|)$ (under Ha: diff! = 0) is 0.000. In the other cases, we do not find a statistically significant difference in the means.

Graph 2 also shows the satisfaction with each media and channel taking into account both group of workers. In order to calculate an overall mark for the level of satisfaction with each media and channel, I weighted both sample sizes proportional to the population distribution. The resulting ranking of media and channels from the one presenting the highest overall level of satisfaction to the lowest one is the following: Web Page, A Punto Magazine, Polo Zoom, Notices to the staff, App and Liga Polo.

5.4. Regression analysis

Job satisfaction depends on multiple dimensions such as pay, promotional opportunity, teamwork, recognition, communication, accomplishment, training and work-life balance among others. This is well supported in the literature. Measuring job satisfaction of workers at VW Navarra and finding out determinants of overall job satisfaction is beyond the scope of this study. My objective is just to analyze the effect of internal communication on job satisfaction, that is, I will focus only on the communication issue.

There are two questions in the questionnaire which serve as an overall internal communication evaluation. Those are: "Internal communication I receive form VW

Navarra is interesting" and "Internal communication I receive form VW Navarra achieves that I feel well informed". These variables are called "interesting" and "useful" respectively. They are used as a way of measuring workers' overall opinion about internal communication. It is expected that as more interesting the internal communication is and as more useful is thought to be, the higher the job satisfaction (in terms of communication).

Next, I present and estimate a model of job satisfaction (regarding just internal communication) that depends on these two overall internal communication variables, "interesting" and "well informed" as well as on workers characteristics. Due to the specific way the question was asked to respondents, "Value your job satisfaction only in terms of internal communication", the dependent variable captures job satisfaction only in relation to internal communication and controls for other dimensions that also affect job satisfaction.

The model to estimate is as follows: Job satisfaction (regarding internal communication) = $\beta_0 + \beta_1$*interesting + β_2*useful+ β_3*seniority + β_4*type of contract + β_5*gender + β_6*age +β_7* educational level + e

In addition to interesting and useful communication, the model includes some variables that measure characteristics of the respondent. Specifically, the questionnaire asked about the respondents' seniority, type of contract, gender, age and educational level. Table 5 presents descriptive statistics for these separately for blue- and white-collar employees.

Table 5. Descriptive statistics of respondents' characteristics

Variable name	Description	Descriptive statistic			
		Blue-collar	N	White-collar	N
Seniority	How many years have you been working here? (1)Less than 1 year.............................. (2)From 1 to 5 years............................. (3)From 5 to 10 years......................... (4)Form 10 to 20 years........................ (5)More than 20 years........................	% 2.38 6.75 23.41 21.23 46.23	504	% 2.23 7.18 14.85 22.77 52.97	404
Type of contract	(0)Temporary..................................... (1)Indefinite.......................................	8.57 91.43	502	2.48 97.52	403
Gender	(0)Male.. (1)Female..	90.34 9.66	497	79.60 20.40	402
Age	(1)18 to 20.. (2)20 to 30..	- 13.62	470	- 2.57	389

	(3)30 to 40..	18.51		21.34	
	(4)40 to 50..	38.94		40.36	
	(5)50 to 65..	28.94		35.73	
Educational level	(1)Less than primary education..........	0.41	492	-	397
	(2)Primary education............................	11.38		1.01	
	(3)Lower secondary education............	9.55		0.76	
	(4)Upper secondary education............	9.55		0.76	
	(5)School...	12.60		6.80	
	(6) Professional training......................	49.39		36.27	
	(7)Degree / Bachelor..........................	6.50		37.53	
	(8)Master /second cycle degree..........	0.61		16.12	
	(9)PhD or equivalent...........................	-		0.76	
	(10)Not classified in any of them.......	-		-	

Finally, I decided not to include the variable "age" in the regression as it presented a quite high correlation with "seniority".

In Table 6, the results of the regression model are presented. The goodness-of-fit of the model is adequate ($R2$ equal to 0.5171 and 0.4325) yet a substantial degree of variation remains unexplained. This is a standard result for bottom-up approaches. In this case, I am aware of the limitations of this regression model as job satisfaction is the result of the combination of different factors.

Table 6. Job satisfaction and internal communication

	White-collar	Blue-collar
	Coef.	Coef.
Interesting	.3626*** (.0650)	.04585*** (.0620)
Usefull	.4649*** (.0524)	.2640*** (.0561)
Seniority	.0759 (.0498)	-.1244* (.0612)
Contract	-.0993 (.3062)	-.2704 (.2428)
Gender	.0491 (.1230)	.1542 (.1859)
Educational level	.0805* (.0455)	-.0746* (.0362)
cons	.0843 (.5010)	2.25 (.3957)

Note: N   380   380
        R^2 0.5171   0.4325
     */*** Significant at 10%/1% level respectively

The largest portion of the variation of the independent variable is explained by the variables "interesting" and "useful" for both groups. This is a logical result to expect, as the more interesting internal communication is for workers and the better informed they feel the higher job satisfaction in terms of internal communication. It is worth stressing here that the difference between job classification is still visible because the fact that the communication is interesting as a bigger effect on job satisfaction in the case of white collars (0.36) compared to blue collars (0.04).

The seniority variable is significantly negative for the blue-collar sample. In the case of this group of workers, the more years they have been in the company, the less their job satisfaction bearing in mind internal communication. This explains that a worker who is in the assembly line, the higher his/her tenure, the less job satisfaction will present regarding internal communication. So, in general, it seems that older blue-collar workers are less satisfied with internal communication than their younger counterparts. It might be that this type of employee values much more other determinants such as pay, for example, not giving to internal communication a big importance. Nevertheless, it can also result that internal communication does not satisfices them, being this a point to take into account for the company. This seniority effect on job satisfaction is not observed for the white-collar group of workers.

The variable educational level presents a completely opposite relationship with job satisfaction depending on the job classification. Whereas for blue-collar workers, this variable it is significant and negative, for white-collar workers the effect is significant and positive. Therefore, the higher the educational level possessed by a blue collar employee, the less his/her job satisfaction in terms of internal communication. Educational mismatch could be one possible explanation for this result. In the assembly line, there are workers with a higher level of education than the required level for their job. Educational mismatch is said to negatively affect job satisfaction, which in turn will affect job satisfaction with internal communication. Over- educated workers may demand more and, need to be more or better informed. The opposite relationship is found for white-collar workers. In the case of white-collar employees, the higher their educational level, the higher their job satisfaction.

Taking into account these results, the company should focus and pay greater attention to blue-collar workers who have a high experience in the company and who have a higher level of education. According to these results, blue-collar workers seem more difficult to satisfy with internal communication their white-collar counterparts. This is why the

company should work more on this point, trying to make them feel more satisfied with respect to internal communication.

5.6. Qualitative analysis

Once the quantitative analysis has been completed, it is time for the qualitative analysis of the questionnaire. It will present a summary of the open-ended responses. The most repeated answers will be highlighted as this can give relevant information as well to the company because workers could express themselves in a non-structured and open way.

To start with, responses for the notices to the staff will be analyzed. Although it is seen as a good and helpful way to be informed by some workers, in most cases comments are negative. Specially, quite a few workers highlight that some important notices do not reach them or if it did, it was too late. Moreover, it is thought that they should be more rapid, concrete and clear without so many technicalities. There are some workers who complaint about the way promotions are done. They claim that they are not informed when there are possibilities to promote to a higher job position.

The Polo Zoom is described as "very good information tool" and people do value and comment that the last format and contents modifications have been a real success. They think that it is suitable to know apart from the weekly production, a lot of different issues of the company.

On the opposite side, there are also negative comments about the contents. Some workers think that there are additional topics that are more important and relevant than the matters that this channel is communicating. They say that it informs about little things and that what matters is not explained. They demand more information about the company, its future, workers situation... and suggest implementing more point to collect them apart from the rest areas.

To continue with another paper media, remarkable comments about the A Punto magazine are the following ones: "very good magazine", "magnificent idea", "lux to have it", "quite complete", "good the last turn done to it being notorious the higher quality". Workers like the articles which are accompanied with photographs either of the company or workers.

There are as well negative aspects to take into account. One of the most important ones to bear in mind is that some workers say that they do not receive the magazine at home. This mistake should be solved as soon as possible. Additionally, workers say that the magazine does not reflect the reality in the assembly line and that everything seems ideal when it is

not the case. They request to include more photos and information about blue-collar workers rather than of so many white-collars.

The improvement done in the press releases was very desired by lot of workers. There are comments such as "It was time!" that verify it. They really think that it is a progress to do it in this way as it was quite frustrating to be informed by the press before than by your own company. It is of high importance for workers to know that the information is first distributed inside the company. Even so, there are a lot of workers who state that they do not see this change as still they are first informed or discover issues by the press, subcontracts or even by the word of mouth.

The Intranet is thought to be useful and to provide a good service. A worker pointed out that it helps him to have information about any doubt raised by workers in its charge. Still, quite a few workers (blue-collars) say that they do not have time during the working hours to use or consult it. Moreover, the access points of the workshops are not centric and in some of them the computers do not work properly. They ask for more access points or even to have a personal code to access from home. Moreover, some workers say that the information in it is still obsolete. There are suggestions to provide personal access to the business calendar, personal record of worked days, pay slip...

The new communication channel, the App is classified as a "great tool", "very useful", and "wise choice". It is thought to be a success as it is the way to have instantly all the information in your hands.

It is worth mentioning the huge repetition of comments saying that it is very slow and that it consumes a lot of battery. Some others had problems with the access code or user name and desist to download it. Even so, workers are positive encouraging the company to continue improving it. If this is not the case, some regret that will end up deleting it from their mobile phones.

The case of the web page is unexpected as there are lots of workers who mention that they did not know that there was a new web page of the company. They say that nobody informed them about that. If this is true, it is a huge error of the communication team as the improvement made on this channel has not reached workers. Yet, those who knew about its existence have a positive opinion about it, thinking that it is quite good and mainly that is much more visual than the one before.

To finish with this analysis, we will focus on the Liga Polo. There are workers who think that these meetings have resulted to be the way they felt more informed and think that it is

really necessary in order to complete the knowledge. It is for them the best tool that the company has to "connect" with the direct labor force. Lot of workers value and appreciate the potential of this channel. Related to this, they do not understand why it has been laid aside being a long time ago when they had the last meeting. Nobody has informed them about the reasons of the lack of this channel. The information of this channel should be more aimed to specific problems of each workshop and not so general as sometimes is.

6. CONCLUSIONS AND SUGGESTIONS

This project has examined VW Navarra's internal communication and has studied how the current situation of this company is regarding that issue. Overall, the interpretation of results provides us with the idea that the internal communication of VW Navarra has improved over the last two years and that they are following the right track. Still, there are quite different opinions, primarily between the two distinguished groups of workers. Despite all the effort being made to improve this really difficult issue called internal communication, some workers' opinion about it is still quite strict.

The results obtained show that in reference to the frequency of use of the asked media and channels, the obtained results are very positive for the company. Even having significant differences by job classification, both groups do use internal communication media and channels quite frequent. The effort for creating the A Punto magazine it is worth for as both groups of workers use it in a similar way. On the other hand, results demonstrate that even the improvements made on the Intranet, this channels continues not being used by blue-collars.

Regarding the changes and improvements made by VW Navarra, in general, all of them are appreciated by workers. Bear in mind the high appreciation of both groups of workers in the case of information panels and the positive opinion about the change. Besides, it is notorious how the workforce rapidly adapts to new and innovative communication channels such as the App, because taking into account the short period since it started, number of downloads and opinions are promising. The good reception of the App corroborates that the immediacy is a perfect ally of the information management.

VW Navarra is working very hard on the internal communication; it invests and spends a high amount of money on it having many tools to inform employees that not all companies on this sector have. Anyway, I think that the aim should not be focused on increasing and adding much more media and channels but to mainly improve the content and distribution of current ones taking full advantage of them. That is, from time to time, roles should be

changed being the company the one who listens to the workers' needs. Knowing the workforce involves knowing each worker. It is necessary to have an extensive knowledge (through surveys, questionnaires ...) about what kind of information a worker wants to receive or how they want to receive as this is the way for being aware of the themes of greatest interest for them and it may be useful to improve later communication tools.

It is crucial for improving the content to think on which is the target group. Although information is for the entire workforce and each worker is as important as the other one, concretely, 76% of the workforce is blue-collar, thus the used language should be close, clear and comprehensible, minimizing the technicalities. The communication team should focus on generating contents of interest for this public.

Moreover, results of the regression analysis should be taken into account. Blue-collars who have been working for this company for many years may demand more information to feel satisfied. Not only that, but the fact that as higher the level of education of this blue-collar workers the less the job satisfaction in terms of internal communication, reminds the communication team to have more into account those important and influencer variables.

The company still has an outstanding issue. They must work more on the speed and transparency of the information so that they guarantee the worker is informed first by its own company of important burning issues than by the press. Given the importance of communication for workers and knowing the great impact that a failure can have on their satisfaction, the Communication team must continue improving and above all, trying not to make any mistake. On this topic, to get the trust of workers and earn a good reputation requires very hard work. However, any subtle failure can have a negative and long-lasting effect on the memory of the worker.

Having all these factors in mind, apart from the clear need for working on the contents, speed and transparency, there is a remarkable aspect to consider. The first one is to come back to hold the meetings of the Liga Polo as the vast majority of workers ask for it and because it has a high potential being the only face to face internal communication channel. It is not an easy task to stop the production line for twenty minutes (approximate length of the meeting) when there is a high production demand. But they cannot lay it aside because what is achieved is that workers feel unhappy without that face to face information which achieved to integrate them. The solution could be to fix one day per month to inform workers at least once a month with the Liga Polo gathering most relevant issues.

In addition, in the case of betting for something new, I would suggest creating an upward communication channel as this is something that workers miss and expressed in the open-ended questions. It could really add value. The objective would be to result in a bilateral communication where workers can anonymously ask questions, express problems, doubts, and concerns that consequently would receive a direct answer. This would serve as feedback to the above, to managers.

Encouraging employees' participation in the communication channels and activities of the company will imply that they feed their confidence in these tools and that their sense of belonging to the group increases.

The company must be able to understand the impact of their actions and to make comparisons between different content and between different used media. For this, it is suggested that apart from continue taking into account Opinion Barometer results, to launch questionnaires focused on internal communication as I did this time to have more detailed results.

Now, it remains to be seen whether VW Navarra continues making progress on this topic and if workers needs and suggestions are taken into account. They should stay on the line with the policy of continuous improvement and constant updating of the tools developed in the strategy is required.

The corporate information is an important value in which the company is settled. Truthful, accessible and transparent information about the company will generate a positive impact on workers. Certainly, just like any architect would begin to build a house from the roof, no company could grow without working hard on its foundations, having a strong internal communication for their workers.

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8. APPENDIXES

Appendix A. Volkswagen Group factories

119 factories

North America
4 factories

Europe
73 factories

Asia
30 factories

South America
8 factories

South Africa
4 factories
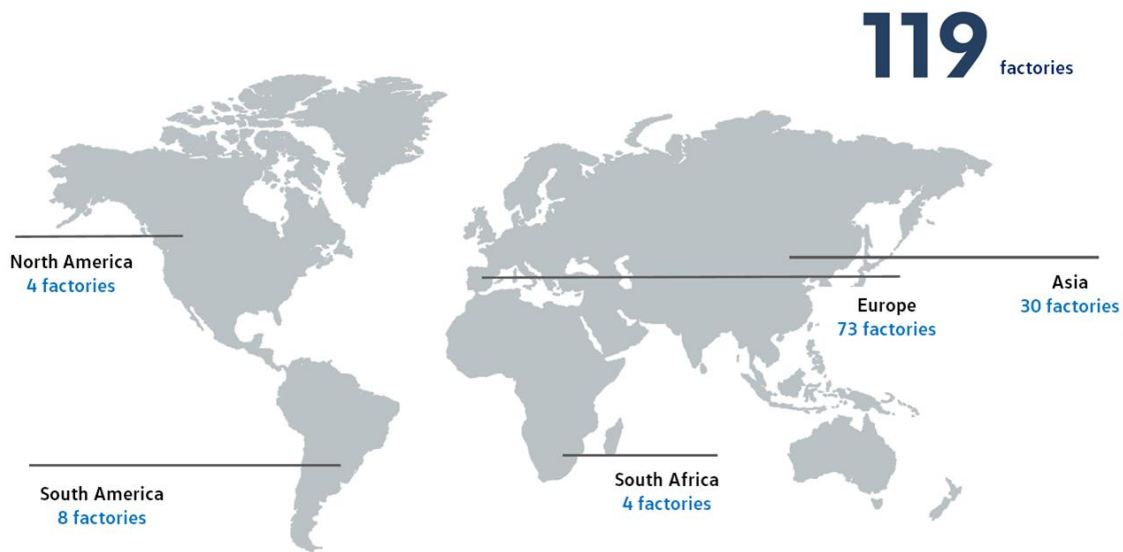
Appendix B. 2014 Barometer questions

1. My friends and acquaintances have a positive image of Volkswagen Navarra. What is the image that the public opinion has of the company? How do my friends and acquaintances see and value the company?

2. I consider myself knowledgeable on the fly and project of Volkswagen Navarra. Do you think that you are well informed about current issues (corporate strategy, situation of the company, new products, etc.)? Do you receive the necessary information to perform your job? We mean information on the company and work.

3. In our department / group it is worked as it is necessary for quality? It is enough what is done within your organizational unit to promote the quality of work? Is the work done within your organizational unit performed reliably, completely, timely, competently and professionally? We refer to the quality your organizational unit could influence on.

4. Failures or problems in work processes are solved quickly in my unit / group. How much does it take to find and fix problems in work processes? We refer to the problems caused by your own organizational unit or other organizational units (for example: defective pieces, late delivery of pieces or data, insufficient communication). How are these issues dealt with?

5. Collaboration with my coworkers is good. How do you assess the collaboration with colleagues from your Organizational Unit / group in regards to fellowship, mutual support, appreciation and respectful treatment? Do you feel comfortable working with your peers?

6. Cooperation with colleagues from other groups is good. How do you assess collaboration with colleagues from other organizational units / groups in what are referred to as comradeship, information flow, mutual acceptance, appreciation and trust? Is a satisfactory solution for all reached despite the different opinions?

7. The working relationship with my immediate superior is good. How do you value the collaboration between you and your immediate superior? Do you feel comfortable working with your superior?

8. Can I respond smoothly to the pressure of work and the tasks assigned to my post? Do you support well the stress and demands? Do you find that the requirements are adequate in terms of quantity and degree of difficulty?

9. I am satisfied with my current job. Are you satisfied with your work (in general)?

10. I like working at Volkswagen Navarra. When you think on Volkswagen as employer, do you like working for it? Do you feel connected to the company?

11. The meeting held on the results of the Employee Satisfaction Survey has been useful for our dependence / workgroup. Was there an opportunity to comment points or important issues during the meeting to discuss the results of the latest Opinion Barometer? Have you been able to use the meeting on the analysis of results to exchange opinions and views? Have you developed and implemented improvement measures where they were needed?

12. My individual contribution is recognized by the rest. ¿To what extent is your individual contribution recognized by your immediate superior and / or other partners? Is your performance and experience consistently recognized? Do you receive constructive feedback that allows you to get involved and continually improve?

Appendix C. Examples of each media and channel

<u>**Notices to the staff**</u>

<u>**Polo Zoom**</u>

A Punto magazine

Intranet

• presse • news • prensa • tisk • imprensa • prasa • stampa • pers • 新聞 • npecca •

Volkswagen Navarra fabricará un segundo modelo

- La planta de Landaben producirá un modelo de la familia del Polo a partir de 2018

- El vicepresidente mundial del Grupo Volkswagen, Francisco Javier García Sanz, destaca el buen hacer de los trabajadores y la dirección de Volkswagen Navarra para lograr la adjudicación

- Emilio Sáenz, presidente de Volkswagen Navarra: "Nos encontramos ante un momento histórico que garantiza el futuro de la fábrica"

- Alfredo Morales, presidente del comité de empresa: "Gracias al apoyo y la implicación de la plantilla, encaramos el futuro de esta forma tan positiva"

Pamplona, 2 de junio de 2016 – Volkswagen Navarra fabricará un segundo modelo. Así se lo ha comunicado hoy a la dirección y a los representantes de los trabajadores de la fábrica el vicepresidente mundial de Compras del Grupo Volkswagen, Francisco Javier García Sanz, quien destacó la profesionalidad y el buen hacer de la plantilla para lograr este proyecto, que supone una garantía para el futuro de la planta.

El nuevo modelo que se fabricará en las instalaciones de Landaben compartirá plataforma con el nuevo Volkswagen Polo. Está previsto que su producción arranque en el año 2018. De esta forma, Volkswagen Navarra producirá un segundo modelo por primera vez en su historia, tras el acuerdo para mejorar la competitividad suscrito por la dirección y la mayoría sindical (UGT, CC.OO. y CGC) el pasado mes de marzo.

El vicepresidente mundial del Grupo Volkswagen, Francisco Javier García Sanz, destacó la profesionalidad y la responsabilidad de los trabajadores y de la dirección de Volkswagen Navarra para conseguir la adjudicación del proyecto. "Quiero agradecer la gran labor realizada por la parte social y por la dirección, quienes con su actitud constructiva han hecho posible la excelente noticia que hoy podemos anunciar", declaró.

García Sanz -quien informó de la adjudicación del segundo modelo al ministro de Economía y Competitividad en funciones, Luis de Guindos, y a la presidenta del Gobierno de Navarra, Uxue Barkos- agradeció el apoyo brindado por las distintas Administraciones Públicas al proyecto de Volkswagen Navarra. "Con esta decisión, el Grupo Volkswagen ratifica su compromiso con España, que es y será un país clave en la estrategia de nuestra compañía", añadió.

Por su parte, el presidente de Volkswagen Navarra, Emilio Sáenz, apuntó que la concesión de un segundo modelo a la fábrica de Landaben ha sido "un gran anhelo" que hoy se hace realidad.
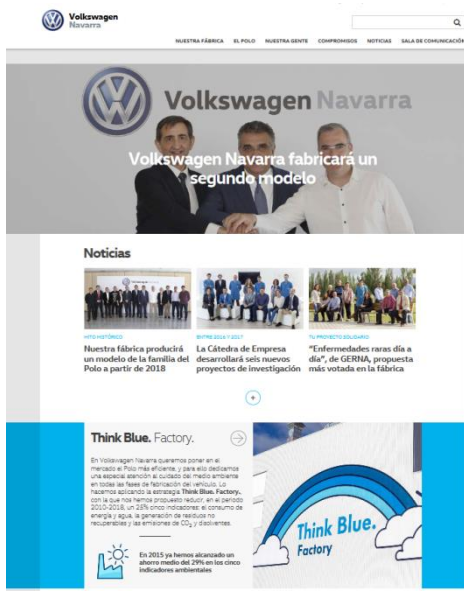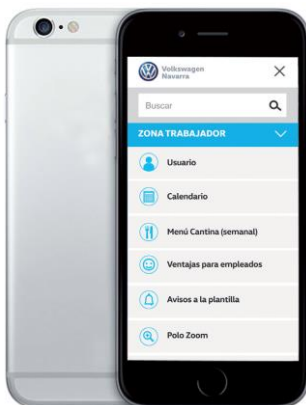
Information panels

Web page

Liga Polo

App

Appendix D. Questionnaire (English version – Translated version)

1. Do you read the Notices to the staff?
- ❍ Never
- ❍ Sometimes
- ❍ Always

1.1 In the case you have answered b or c:

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with Notices to the staff	❍	❍	❍	❍	❍	❍	❍

OPTIONAL: Make any comments or suggestions on the Notices to the staff that you think is appropriate.

2. Do you read the Polo Zoom?
- ❍ Never
- ❍ Sometimes
- ❍ Always

2.1 In the case you have answered b or c:

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with Polo Zoom	❍	❍	❍	❍	❍	❍	❍

OPTIONAL: Make any comments or suggestions on the Polo Zoom that you think is appropriate.

3. Do you read the A Punto magazine?

○ Never

○ Sometimes

○ Always

3.1 In the case you have answered b or c:

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with A Punto magazine	○	○	○	○	○	○	○

OPTIONAL: Make any comments or suggestions on the A Punto magazine that you think is appropriate.

4. For months the press releases are sent to workers before than to the media via email, app and panels, are you aware of this change?

○ No

○ Yes

4.1 Do you think this is positive?

○ No

○ I am indifferent

○ Yes

OPTIONAL: Make any comments or suggestions on the press releases that you think is appropriate.

5. In December 2015 all information panels of the factory in which different information is presented such as: Volkswagen information, press, union sections and workers advertisements were changed. Are you aware of this change?

❍ No

❍ Yes

       5.1 In the case you have answered yes, you consider the change

      ❍ Negative

      ❍ Leaves me indifferent

      ❍ Positive

OPTIONAL: Make any comments or suggestions on the information panels that you think is appropriate.

6. I use the Intranet:

❍ Never

❍ Sometimes

❍ Always

OPTIONAL: Make any comments or suggestions on the intranet that that you think is appropriate.

7. On January 18, 2016 the App for Android, IOS and Blackberry was launched. Do you know it?

❍ No

❍ Yes

       7.1 Have you downloaded it?

      ❍ No

      ❍ Yes

       7.2 In case you have download it:

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with the App	❍	❍	❍	❍	❍	❍	❍

OPTIONAL: Make any comments or suggestions on the App that you think is appropriate.

8. In December 2015 the new version of the factory website www.vw-navarra.es was launched. Do you know it?

❍ No
❍ Yes

> 8.1 I think that the change is:
> ❍ Negative
> ❍ Leaves me indifferent
> ❍ Positive

> 8.1 Rate your level of satisfaction:

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with web	❍	❍	❍	❍	❍	❍	❍

OPTIONAL: Make any comments or suggestions on the web that you think is appropriate.

9. Liga Polo, do you consider interesting doing it?
❍ No
❍ Yes

> 9.1

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Rate your level of satisfaction with Liga Polo	❍	❍	❍	❍	❍	❍	❍

OPTIONAL: Make any comments or suggestions on the Liga Polo that you think is appropriate.

10. Overall, the communication you receive from the company in the last two years
- ○ Has gotten worse
- ○ Remains the same
- ○ Has improved

11. Internal communication you receive from VW Navarra:

	Strongly disagree 1	In disagreement 2	Slightly disagree 3	Neutral 4	Slightly agree 5	Agree 6	Strongly agree 7
11.1 Is interenting	○	○	○	○	○	○	○
11.2 Achieves that I feel well infomed	○	○	○	○	○	○	○

12. Value your job satisfaction only in terms of internal communication

	Completely dissatisfied 1	Mostly dissatisfied 2	Somewhat dissatisfied 3	Neutral 4	Somewhat satisfied 5	Mostly satisfied 6	Completely satisfied 7
Job satisfaction	○	○	○	○	○	○	○

13. If you could make a change in the communication of your company, how or what would you change?

14. What is your seniority at the company?
- ○ Less than 1 year
- ○ From 1 to 5 years
- ○ From 5 to 10 years
- ○ From 10 to 20 years
- ○ More than 20 years

15. Set your workspace:
- ○ General Management
- ○ Technique Product Area
- ○ Production Presses
- ○ Production body shop
- ○ Production Painting
- ○ Production Engines
- ○ Production Assembly
- ○ Production Final Check
- ○ Logistics
- ○ Quality
- ○ Human Resources
- ○ Finance

16. You are:
- ○ Direct Labor Force(MOD)
- ○ Indirect Labor force (MOI)
- ○ Administrative Technician (TAS)
- ○ Manager

17. You have:
- ○ Temporary contract
- ○ Indefinite contract

18. Gender:
- ○ Man
- ○ Women

19. Age:
- ○ 18 to 20
- ○ 20 to 30
- ○ 30 to 40
- ○ 40 to 50
- ○ 50 to 65

20. Educational level ISCED standard classification:
- ○ Less than primary education
- ○ Primary Education / first cycle of basic education
- ○ Lower secondary / second cycle of basic education (1st, 2nd, 3rd ESO)
- ○ Upper secondary education (4th year)
- ○ School
- ○ Professional training
- ○ Degree / Bachelor
- ○ Master /second cycle degree
- ○ PhD or equivalent
- ○ Not classified in any of them

Appendix E. Introduction to the questionnaire

INTERNAL COMMUNICATION SURVEY IN VOLKSWAGEN NAVARRA

This is a survey of internal communication at Volkswagen Navarre. The results will help us to understand better the views and needs of staff in this area and to take appropriate measures for continuous improvement.

Please complete the survey by marking with an x the answer that best reflects your opinion. It will take you no more than 10 minutes.

All responses will be completely anonymous. Take into account that last questions are for statistical issues.

Thank you for your participation and cooperation!

Appendix F. Volkswagen Navarra's Workforce

TOTAL WORKFORCE DISTRIBUTION - MARCH 2016														
	INDIRECT									DIRECT				TOTAL WORKFORCE
	EXTRACONVENIO						STAFF	ILF	TOTAL	TC	DLF	TEMP.	TOTAL	
	CEO	Exec.	Manag.	PEC	T+	Total								
	1	6	29	73	6	115	561	413	**1089**	14	2871	568	**3453**	4542
GENERAL MANAGEMENT	1		1			2	2		4					4
PRODUCT TECHNICAL AREA MANAGEMENT		1	2	4		7	28	36	71			1	1	72
PRODUCTION SYSTEM				4		4	23		27				0	27
PRODUCTION PLANNING			1	5	1	7	49	17	73				0	73
TOTAL PROJECT VW270			2	4	1	7	13	10	30		30	17	47	77
FSE PROJECT VW270					1	1	11		12					12
PRODUCTION MANAGEMENT		1				1	1		2				0	2
PRESS SHOP			1	2		3	11	55	69		60	26	86	155
BODY SHOP			1	2		3	35	60	98		404	59	463	561
PAINT SHOP				5		5	34	61	100		430	50	480	580
ENGINE SHOP			1	2		3	26	26	55		463	87	550	605
ASSEMBLY SHOP			1	2		3	38	39	80		1080	293	1373	1453
FINAL REVISION WORKSHOP			1	2		3	14	7	24	1	252	22	275	299
LOGISTIC MANAGEMENT		1	4	7		12	49	101	162			2	2	164
QUALITY MANAGEMENT		1	4	14	2	21	138		159	13	151		164	323
HUMAN RESOURCES MANAGEMENT		1	7	11	1	20	51	1	72		1	11	12	84
FINANCE MANAGEMENT		1	4	8		13	38		51				0	51