



## VISUAL MANAGEMENT AS TOOL FOR IMOROVEMENT

## VIZUÁLNY MANAŽMENT AKO NÁSTROJ ZLEPŠOVANIA

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### Abstract

*Right information's in right place, in right quality and quantity a to right audience create base for fast reaction in different situations what is very strongly related to Key performance indicators of companies. For this reason before visual management implementation we need to consider who will be receiver. Last but not least we cannot forget also use personal / Face to Face communication and do not relay just for visual management.*

### Key words

lean manufacturing, visual management, communication, information flow, productivity

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### Introduction

In fight for market share companies need to provide better product, sooner than competitors and in the same time with minum cost possible it means maximum efficiency to transform raw material to finish good. For this reason not just material flow, but also information flow must be very fast. To assure correct information flow company are usig diferent chanel for communication with their employees.

If you will ask employee what they consider as most important towards to management there is very common answer: "transparent communication" about situation in company, results of company in prevoiuise period, forecasted results, plans to the future regarding new strategies, product developments, management approaches,....

This obviusse expectations towards management are very often in many companies very week, because companies do not know how to correctly set communication chanel with employee.

Generally the communication we can clasify into two main categories:

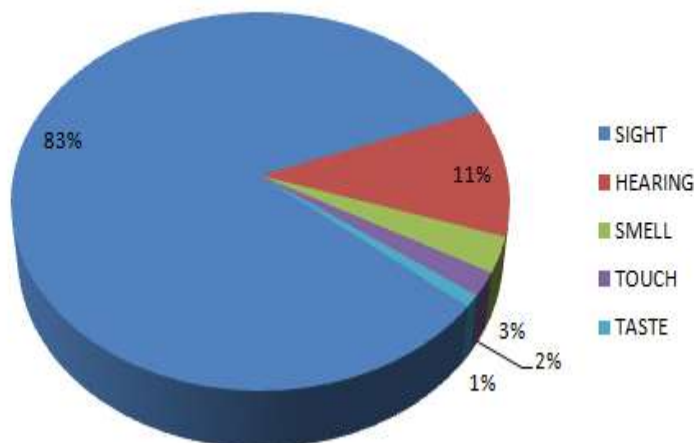
1. **Direct communication** – it is personal face to face comunication between two and more people. This communication is very efective and companies are underestimating power of this communication mainly because it require time and in case of distance issue it many time require traveling. In actual modern time it is possible to solve by videoconferences which can evoid traveling and are very efficient. This way of comunication managemnt use mainly for anouncement of important messages, results of company, new startigic decision,.... to have direct fead back from employees. Between best practices in this communication belong regular monthly or quaterly face to face meeting of management of company with employee to share financial and operational results of company and prevision for next period of time.
2. **Indirect communication** - i tis inpersonal comunication between two side using some information carrier. As this communication is inpersonal, basic requirements of this communication is clarity.



Between most frequent informations carrier which company use belong:

- a. **Company news papers**
- b. **Infomation boards**
- c. **Internal email communication chanel**
- d. **Suggestion boxes**
- e. **Eletronic info panels – Info kios**
- f. **Others**

Majority of this communication is tranfered through our eyes and for this reason it is often called as visual communication. This communication belong to most efective one because majority of the informations which we are receiving is through our eyes.



**Pic.1 Obtaining rate of information by five senses [2]    Pic.2. Confusing communication**

As the communications belong to one of most important management tool, it is very often named as “visual management”.

Visual management belongs to modern method of management and we can find it in all management schools like American, Japan, Western Europe schools.

Visual management play very important role in managing of production lines. Due to continues improvement of information’s technologies today it start to be much more easier to collect the data’s directly from machines in real time and in the same time to present data in some visualization equipments like TV screen, interactive boards,... and cost of this solutions is year over year cheaper.

Nowadays production lines must create harmony between productivity, quality, cost and safety and for this reason a lot of companies they are trying to create this harmony by establishing their own production system where they describe basic principles, methods, and tools of their production systems. One of most important part of those systems is description of their Key Performance Indicators (KPI) by which they will measure performance of their process and also the way of communication because it have direct impact for success or no success of company.

Here we can use very common thesis for management, that effectively I can manage just what I measure, and now comes important task in shortest possible time in adequate quality and quantity to transfer right information’s to right people. Nowadays in modern companies they are able to mange huge amount of data’s per day but just very few information’s. It is very incorrect to think that if we will give a lot of data’s to all people they will be able to transfer it



into information's and then transfer information's into actions. In visual management is definitely valid that "Simply is the best", for this reason does not make sense to overcomplicate visual communication which will just confuse receiver of information (see picture number 2.)

In manufacturing environment are mostly used these tools for visuals management:

1. Visualization on the floor like routes for pedestrians, routes for manipulation techniques, stocking positions,.....
2. Visualization of working instruction for operators
3. Visualization of information's through physical boards
4. Visualization of information's through electronic boards
5. Andons – visual method to highlight problem
6. Others

All of this tools play very important role in manufacturing environment and absolute basic of this visual management is 5S. 5S is basic method which consist from 5 steps, where the main impact is in eliminating of waste in process due to disorder on working environment. Here are basic 5 steps of 5S (come from Japan):

- **Sort:** Sort out & separate that which is needed & not needed in the area.
- **Straighten:** Arrange items that are needed so that they are ready & easy to use. Clearly identify locations for all items so that anyone can find them & return them once the task is completed.
- **Shine:** Clean the workplace & equipment on a regular basis in order to maintain standards & identify defects.
- **Standardize:** Revisit the first three of the 5S on a frequent basis and confirm the condition of the Gemba using standard procedures.
- **Sustain:** Keep to the rules to maintain the standard & continue to improve every day[1].

World class companies usually are telling that world class comes when there is a system which makes it possible to highlight any abnormality visually in such a way that anybody can recognise it as a problem.

Actually in very developed and modern life are quite often used for visualisation pictures. It is fast to create and easy to print, but pictures have one disadvantage. They include also a lot of information's which are not necessary and pollute main message by noise. To avoid this problem to describe some instruction is much better use sketches. One sketch than can easily cover 8 minutes of speech. Newest trends shows that sketches are used for majority of visual standards like operational standards, safety standards, ..... (If you look on safety instruction standards you will see also sketches instead of pictures) Good sketch can consist also words, good combination of visual standard is 80% of sketches, 20% of words.

For visualization of results are very effective boards, which summarize information's for people in very clear way for understanding. Here we need strongly differentiate the quantity and quality of information's based on audience / receivers. It is clear that level of information's which we want to visualize for operators must be different comparing to information's which we need to show to technical and administrative staff. And it is normally common mistakes of company when they want to present everybody in the same way, and that visual communication is understandable for everybody and who do not understand is later on not able to act. For this reason this visual communication must be targeted to receivers and



must provide just information's which are necessary in moment when is necessary to people which need to receive.

Visualisation boards which are very often used for presenting of results in company we can divide into two main groups:

1. **Static Boards** – are the boards which are located in fixed position and information's which are there are static and are changed in frequency which normally is at most daily, typically weekly and require manual updating of data's. One of the biggest disadvantages is that information's on these kind of boards normally show just historical results, which is not possible to change, usually these boards are located in positions where is difficult access and mainly for operators where they do not have time during their work to study this board.
2. **Dynamic boards** – are the boards which do not present static information's, but information's are constantly changed almost in real time. Boards can be normally located over the production lines and are visible for all operators from their working positions without necessity of additional movement of operator. These dynamic boards can easily present different information's for different audience. One of the biggest advantage of these kind of visualisation is elimination of administration connected with static boards like preparing manually the graphs, printing,...

Impact of dynamic boards towards company targets is very strong. When the people are constantly receiving feedback about their job, problems, .... than it is obvious that solving of potential problems is much faster than without this communication.

Example of visual management in Embraco Slovakia separate it for 3 different audience level

### 1. Operators on the line

On this level are for operator's online presented information's about their line like: Actual production with comparison with planed production volume, information's about scrap and rework and FPY (first pass yield). Real numbers are always differentiated by colours to quickly understand if indicator is ok. (If indicator is plus minus 5% of plan number is in green, If is over 5% better than blue, less than 5% but not more than 10% yellow and less than 10% of planed value in red). It gives very fast information even without reading numbers.

### 2. Technician, specialist level

For this level are presented more detailed information on the level of machine like: cycle time of machine, number of breakdowns, rejection rate for each single machine, This level is used mainly by technician and specialists to identify root causes of problems and also to find next potential improvements.

### 3. Management level

This level summarize online information's about production, quality,... in each moment, but shows also summarized information from previous day. These information's are then used on morning meetings to set priorities for actual date.

For all levels is used colour management as described in Operators level



There is no doubt about positive impact of implementation of these system, in Embraco Slovakia it was from 7-10% improvement in productivity, reduction in quality problems.

### **Conclusion**

Implementation of visual management play very important role in companies to reach effective communication. Into the big advantages of visual management belongs: simplicity and clarity what is the base for correct understanding. Today's information technologies helps to build up visual management and to be even more effective.

### **Kľúčové slová**

štíhla výroba, vizuálny manažment, komunikácia, informačný tok, produktivita

### **Abstrakt**

Správne informácie, na správnom mieste, v požadovanej kvantite a kvalite a správne publiku vytvárajú predpoklad na rýchle reagovanie na vzniknuté situácie, čo má za následok zlepšovanie ukazovateľov výkonnosti. Pre zavedením správneho vizuálneho manažmentu je preto potrebné si uvedomiť z čoho bude pozostávať a komu bude adresovaný. V neposlednej rade netreba zabúdať na dôležitosť osobnej komunikácie a nespoliehať sa len na neosobnú.

### **References**

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