

The importance of management software (maintenance)

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1. INTRODUCTION

We are probably going through one of, if not the most, critical and challenging phases of the past four decades. I have no memory of going through such a situation where we are being “asked” to stay at home for an indefinite period of time. An hour feels like a day, a day feels like a week and so on. This measure has been taken to ensure the following objective is met: prevention and safeguarding of our “machines”.

There are isolated regions everywhere, to avoid this situation becoming a global pandemic.

I have noticed that some have been quick to point the finger and make accusations over what is happening and where it came from. What if, instead of focusing on the problem, we focus on the solution? It may be easier for us to solve the doubts were having ,or it may not be. We’ll at least be taking the focus off what’s irrelevant to us at the moment, guilt.

Valuable statistical data has been provided by the responsible organizations, which allows us to draw up a set of conclusions; number of cases, symptoms, age group, sex, region, type of evolution, recovery rate, etc. This is information collected from various parts of the country and the world, which converge to a single database. Without this centralization of information, the management of this harsh reality would become practically impossible.

It is at these times that we give real value to information. Information is power. Sharing it, going further, gives us even more power.

That being said, the transition from maintenance theory to practice is not that different.

2. TRANSITION FROM CURRENT REALITY TO MAINTENANCE

The last paragraph begs the following question: “After all, how does our current reality connect with maintenance?”

Maintenance, according to standard EN 13306, is the “combination of all technical, administrative and management actions, during the life cycle of an asset, designed to maintain or restore it to a state in which it can perform the required function”. What is happening in the world? A set of heroes who, through various means, focus on maintaining daily life and routines. Importantly, in the field of management, be it related to maintenance or any other area, knowing who does what is essential!

3. MAINTENANCE CHALLENGES

The organization and management of maintenance has been part of my life for over 20 years, and during this time, there are still questions that arise, leading me to think that investing in maintenance has not been a widespread priority. On the other hand, I have noticed certain reformations of seemingly conservative traditions, notably greater investment in technology and equipment. This has likely come about from past divestments, or due to the modern dynamism of industrial parks, or even possibly due to strategic maneuvers in innovation and technology. Currently, some of this new equipment is equipped with a strong technological component that indicates when the equipment should “replace the oil”. We are seeing vast improvements, after all. However, we can always complicate things when we buy equipment from different brands where each manufacturer has its own software. How many computer applications will we have to “open” to get the information we want?

In my opinion, any investment that involves equipment and maintenance should be mandatory, and this decision should encompass prior consultation from a qualified person in the maintenance department. A minimum requirements should be determining whether the man-

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agement information within the machines' own software can be integrated into a single database. Sometimes this factor is disregarded and the maintenance manager delves through the software in search of new maintenance updates, warnings and damage alerts, and then, on an Excel ® sheet, records these various occurrence(s). At the end of the day, there is a feeling that a lot has been done without doing anything. This valuable time seems to go by in the blink of an eye. Time is money.

I was recently asked a standard question: "How much does a maintenance management software cost?". For those working in this field, it will be easy to understand that the answer almost always correlates to the budget, expectations and needs of the questioner.

I responded slightly differently to the usual answer.

- Me: "We are talking about an investment that is worth around X Eur. It depends on what you want to manage, if you want to include warehouse management, work orders management, etc. What is the scope of your needs?"
- Interested party: "This seems to be expensive."
- Me: "Okay. Compared to what? " Silence... "Everything depends on the value that the company gives to its assets and investments".

I found myself thinking that maybe the last sentence was like a "knife to the wall". On the other hand, it may have been the beginning to a new vision on this topic.

The conversation continued to flow normally and, without asking, I learned that the company had recently made an investment and that we would possibly be considering an investment in a CMMS of less than 5% of the investment in the equipment. Without any kind of value judgment, in my opinion, possibly as a direct result of the interested party not setting their own CMMS criteria in detail, any amount paid for a CMMS will be considered high. Does this sound like you? What value do you give to your organization's assets?

Over the years, several challenges have been faced by maintenance managers and their

teams, which, as a rule, are only remembered when everything is resolved. These people have a forgotten role because there are few who remember these heroes whose mission is to:

- Ensure the operation of equipment;
- Ensure the execution of planning by spending as little as possible;
- Respond in a timely manner to requests;
- Make egg-free omelets;
- Keeping a team motivated;
- Find enough time around the clock to repair the various breakdowns;
- Supply material in a timely manner so that there is no shortage of stock;
- Complete a number of other imperative tasks

I have previously heard maintenance personnel being referred to as 'service firefighters'. To live up to the standards of this phrase, information must be centralized in a management software that enables the widespread circulation of updated maintenance and management concepts, and also the following:

- **Equipment:** codification and registration of all assets with technical characteristics and preventive maintenance plans, and the establishment of relationships between assets and spare parts.
- **Materials:** codification, recording and guarantee of timely stock for all materials necessary for the maintenance.
- **Work management:** recording and management of all types of maintenance work with respective detailed intervention reports, encompassing the total history of each maintenance asset, work, man-hour record, parts used and costs to help analyze maintenance management KPIs.

In order to answer questions like:

- What do we want to achieve and what will we get in return?
- Has the implementation reached expectations and objectives?
- What is the average age of the equipment?
- How many equipment faults? Why have the faults occurred? How can we improve equipment performance?

- Which malfunctions are most frequent? And how are they resolved?
- What are the most common symptoms of malfunctions?
- Downtime: How much is there? How much time was lost as a result of it? How can we improve?
- Do maintenance plans work? Are personnel complying?
- How much do we spend? Is it a reasonable amount?
- Logistical work?
- Will staff deliver on tasks? Is it too much to handle? Too little? Does the system work well?
- Is the maintenance department complying?
- Could we do better? In what way(s)?

The company should be granted management support tools, storing the information in the minds of only a few staff members

4. PRE-INVESTMENT QUESTIONS ON MANAGEMENT SOFTWARE

It is not enough to simply want a management software, or to invest in it because you're hopeful that it will produce a miracle for your company internally. This logic is not always present, but there are questions that have to be answered objectively for you to become fully aware of the reality of investing in a management software, whereby one can anticipate issues that may arise and have pre-prepared alternative plans to quash these challenges.

- What has led us to invest in a management software?
- How useful can a management software be for my organization?
- What challenges does a management software solve?
- What is the expected impact?
- Who will be its primary users?
- What kind of resistance could I face?
- How soon will I start to see the return on investment from the management software?

One must always remember that the personnel managing the software are not the software itself, and therefore require different attention.

5. STATISTICAL DATA

In 2018 we conducted a study with a set of users of a maintenance management software and found the following:

- 89% saw improvements in cost control. It's always helpful to know how much, where, and what we spend our money on.
- 88% saw improved control and a reduction in inventory costs.
- 85.7% guaranteed they were in compliance with relevant legislation in force.
- 86.7% saw an increase in employee productivity.
- 82.8% saw an increase in equipment availability.
- 88.2% saw an increase in equipment lifespan.
- 95.8% felt that the image of the maintenance area and / or the company has improved.

6. FINAL CONSIDERATIONS

In conclusion, I will not look to summarize the above information. Rather, I will leave you with a set of questions that will hopefully make you think about your current situation and may also help you reconsider your internal communication strategy in view of the need to invest in management software:

- Who really understands your management system?
- In what way is your facility information centralized, in terms of personnel and assets?
 - o Will the person in charge remain at the company for many years to come?
 - o And what if the person leaves the company?
 - o Will you end up storing little to no information in the future? Are you willing to do this?
 - o Will the person in charge have time to write down everything they know across various different documents?

- And what if they need to describe information that has taken years to understand and master?
- Will available centralized maintenance history available be important for reviewing information?
- How valuable is the facility with your equipment?
- Will the implementation of a software produce its expectations and objectives?
- What are the most common symptoms of issues with equipment?
- What is your team's productivity rate?

And if all these questions were answered only with the help of a computer tool to support management?

Will you face any resistance with this decision? Yes, of course. And sometimes from those who you least expect it from.

Despite obvious reservations about the software, and looking at the transversal reality of maintenance, reinforcing the notion that investing in management software has a return that can be very fast and contribute to the sustainability of companies is imperative.

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