



# Work Order Management: A Challenging Tool Towards Successful Hotel Management

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**Abstract.** In this study, the researcher adopts a comprehensive practice toward evaluating the importance of work order process as a main feature in hotel maintenance. Work order management has been discussed extensively within the academic context, in order to implement elevated performance of CMMS software. Work order feature is considered as one of the vital factors affecting directly the operations also reflected on the customer satisfaction. However, the identification and execution of maintenance work can be extremely time consuming and expensive when not managed properly. However, the use of a well-constructed, site-supported Work Order Management (WOM) process can help to reduce such costs while improving efficiency. This would enable the management to achieve better maintenance efficiency through applying different methods, concepts and practices. The main framework highlights the importance of work order management justify the hotel's objectives .Moreover ,to realize how a work order operate generates opportunities to upgrade workflow, rating the key components of a process was generated, right with a review of procedures and processes, also by comparing both the old manual process vs. the software.

**Keywords:** Maintenance strategy, computerized hotels maintenance software (CMMS), Work Order, Hotel maintenance.

## 1. INTRODUCTION

Weir (2007) states that “computerized maintenance systems are used currently rather than the manual (paper based) work maintenance systems that are used for several years. The use of computers in maintenance will offer prepared access to specific information and ability to quick search and find detailed, relevant data with ease. The chance to manage and supply a broad scope of summarized data with higher quality than a manual system may ever provide”.

A CMMS including work order software organizes the maintenance records and data of the hotel within the objective of reducing failure and unscheduled disruption while reducing maintenance costs and improving productivity. In the digital era a comprehensive CMMS work order system is important for any hotel that wants to remain profitable, competitive and efficient.

Work order management could be considered as instruction for maintenance services to be

operated, either requested from anyone within the hotel or as a recurring planned work to maintain tools, buildings, or assets. For the hotel operation director, these work orders come in the form of anything from a request for a minor to a major repair. Manage work order requests allow anyone within the hotel to submit work order requests. By the mobile device team member will be able to approve, cancel, and follow up with requested order. Also, to respond to work orders at once from anyplace and update requester when orders are being finished.

## 2. Computerized Maintenance Management System (CMMS)

A Computerized Maintenance Management System (CMMS) could be a software system which is used to encourage managing and tracking maintenance activities, as an example planned maintenance, work orders, stocking, purchase and any projects. CMMS allows total vision and management on maintenance process;

therefore ,anyone can easily understand what's already been done and what still has got to be done.

CMMS software automatizes generally most of the logistic duties done by team and management. CMMS systems progresses with several choices and have noticeable benefits upon manual maintenance tracing systems. According to Sullivan (2010) Typical CMMS features would possibly include the following factors depending on the complexness of the software selected:

- Generating work order, prioritization, and following by property.
- History for work orders generated, those work orders that become classified by location, time/date, responsible person, etc.
- Tracing for planned and/or special maintenance activities.
- Classifying all procedures and all technical documentation for each asset.
- In-progress report for all work activity.
- Preventive maintenance based on scheduled work order can be generated.
- Tacking for principal and labor cost for every element furthermore shortest, median, and extended times to finalize each work order by element.
- Control on spare parts inventory within automatic recordable capabilities.
- External service call/dispatch capabilities.

CMMS programs provide a wide range of features. One of these features is to ellipsis of printings paperwork and doing activities manually, in accordance enable the team to be more productive. Work orders will facilitate the preservation of detailed records. CMMS software work order is used to formally request maintenance work to be performed. Moreover, to communicate necessary data concerning the task to others involved.

### 3.Core Feature of a CMMS: Work Order Management

Work order management is often outlined because of the appropriate and timely processing of work operation. Sounds straightforward, however it could be more complex operation that might take uncounted hours and mass of papers if it was done

manually. (CMMS) system automatizes such operations, simplify and organize work orders from kickoff to end.

This method currently considered as the business method needed for any hotel to consider, order, prioritize, allocate, guide, document, and report any preventive and corrective maintenance for each property's, or to vary current property, or installing new ones.

In General, the objective is to accomplish method enhancement, standardize work order method in such appropriate way that doesn't restrict the capability to fulfill prevailing accomplishments and serving levels. Also, utilizing the CMMS in an additional manner to standing roles instead of accomplishing new roles. The moment that implemented and integrated, and with sufficient team coaching and data generated and development, the aim is for the CMMS to be a helpful software" tool" to facilitate and / or speed up the management of the work order operation. Furthermore, to allow team to give more time on their specialized work instead of the CMMS to simply be other task completed and added to administration.

"Work orders" start up as requests, which will be approve after; such work will be scheduled/planned, completed and eventually data recorded. Work orders consisted of detailed data regarding maintenance history articulating valuable information on maintenance performance, costs and assets history. Through the traced data by work orders are:

- Start tasks /Dates of completion
- Work instructions for each step
- data concerning who performed the work
- Detailed inventory
- labor and materials costs
- life cycle information: where, work order starts originated, when scheduled, approval by whom, time of performance etc.

Post work order completion all data can be used to track maintenance costs for each asset. Wireman (2013) states that "Work order backlog is helpful for determining by team requirements and shutdown intervals".

### 3.1 Work Order Process Flowchart

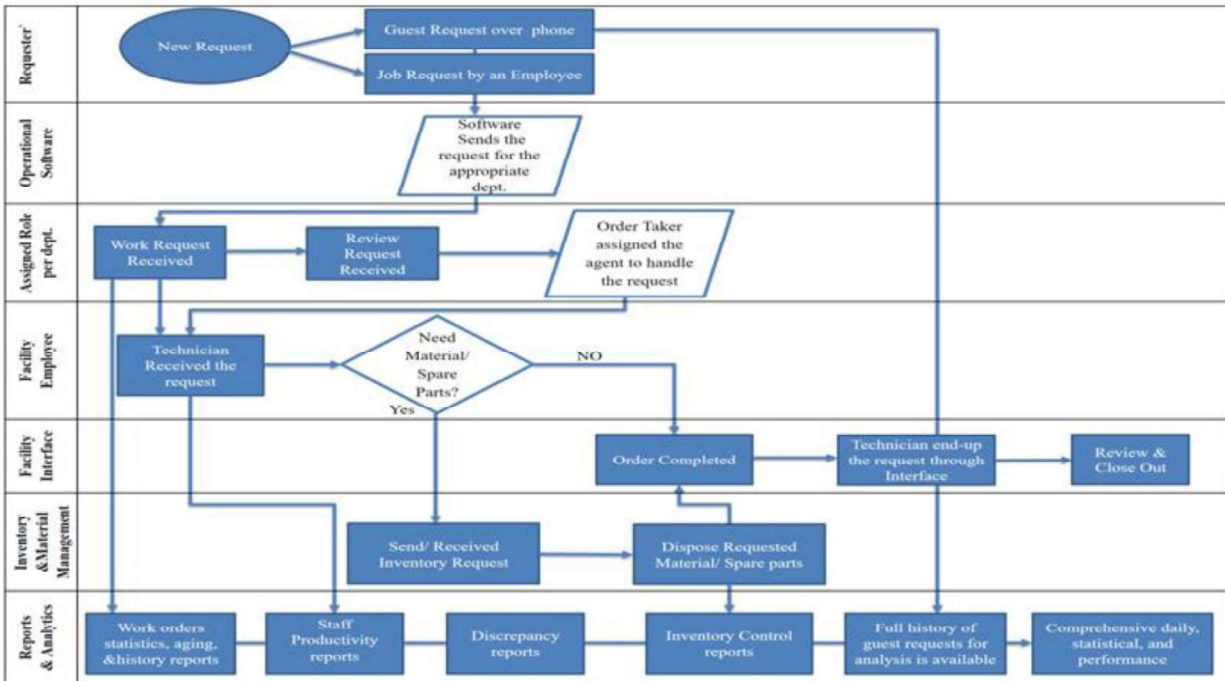


Figure 1. CMMS Work order Process Reengineering “by researcher”

### 3.2 Work Order Prioritization

The work orders prioritization within the hotel are decided by criticality of the service to be completed (emergency vs. planned) in addition to the significance of the asset. Criticality is planned for every kind of repair as for all assets, making it easy for the planner or director to determining the priority for daily tasks. While this is scheduled correctly, the priority comes to the important work to be firstly done and if backlogs take place, it would be for trivial jobs. Work order management through CMMS tool works to provide granularity of the operations and tasks that require to be done to accomplish each work order and insure that they are done efficient, dynamic and in a productive manner.

### 3.3 Work Order Request Life Cycle Using a Manual Process vs. CMMS software

Most renowned organizations utilize maintenance management system; however, others don't have proper CMMS software. Maintenance management software will simply be depending on paper documents which store data on what time maintenance was operated on certain elements. A lot of formal maintenance management software's may consist of organized work orders that document the “who,” “what,” “why,” “when,” “where,” and “how” maintenance was managed. Moreover, CMMS software might be applied to perform not only for work order method; however, organize endless number of another necessary data to trace activities and asset information to assist hotels operate their activities in a more cost effective, preventive manner.

**Table 1: Work Order Request Life Cycle Using a Manual Process vs. CMMS software**

Manual Process	Comparison	Software Process
Call Received from guest. Entered into Database	The software solution benefits from integration with team and databases allowing quick access to the guest data, minimizes data entry	As call received guest information shown automatically from phone number
Define Who, What, When & Where?	The Software solution defaults the Who, When, where information, location derived from the program database	Define only What: Who, When, Where already defined
Print Copy to start work order	The Manual process prints out the work order info, this may be printed directly to the order taker, but the process is now driven by paper, The Software solution has the order taker/ technician directly review the order through the application	Assign directly to order taker/ technician
Order manually assigned	The Software solution has the history for the Customer online, based on location and equipment, preliminary diagnosis possible, Resources also online, technicians can be efficiently assigned	Supervisor/ order taker Reviews order and assign available technician
Technician receive printed work order	The Software solution allows the Technician to pick up order via network, or wireless connection, minimize time, more efficient wrench time for the techs	Technician picks up order via network/ wireless connection
Order Completed	The software solution allows for completion electronically, allows supervisor to monitor progress while the paper process relies on the tech notifying supervisor	Order Completed— closes out task on spot
Receiving new order	The paper process does not efficiently capture time, materials and the resolution to the problem, the life cycle data is critical to process improvement and the efficient use of resources	Data and Materials added via wireless or mobile connection
Order Closed	Once the order completed by the device connection the database is updated, order is closed, and the tech can receive the next set of orders assigned to him, performance on time and materials added. History reports can be easily generated.	Downloads data to system, automatic updates.

#### 4. Summary of major findings of Work Order Management

The major findings of this study for the hotel maintenance process are:

- Fill out a work order in seconds.
- Get vital requests into the hands of your team members.
- Choose a requester, an asset, location and a procedure.
- Define and assign tasks simply.

- Details could also be added using fields to record procedures, materials consumed, attachments, reporting, failure analysis and more else.
- Quickly finding out work order, even with few information (e.g. a part of the outline or requester name).
- Full management work orders (current, new and preventive).
- Status of running work orders to satisfy deadlines. Add photos to work orders.
- Don't waste time going back to workplace to close out a work order, just use a portal device and move on to the next.
- Optimize Inventory Usage / Eliminate Stock outs as materials used and time will be recorded immediately.
- With Maintenance Connection, engineering office will be notified as soon as repairs are done. New assignments will then be created and received instantly.
- Boost availability and execution of assets Life.
- Support team members productivity. Almost no overtime.
- Increase customer benefits.
- Reduce effectively using of paperwork.
- Deduct maintenance backlog. Get better safety.
- Achieve work orders in a properly manner and time.
- Schedule maintenance activities, moreover preventive maintenance.
- Minimize failure and repair costs.
- Ensure compliance to best practices and regulatory standards.

### 5. Conclusion:

Work order management supplies the aptitude to digitally produce and track work orders with ease. Improve the method with controlled schedule. Embody with details corresponding to requester, location, maintenance procedures, labor prices, & more, therefore to ensure that its maintenance work into effect.

Work Order management is the main feature for any CMMS system whatever it's a preventive maintenance work order, review sheet, or failure maintenance work order Manage maintenance orders as they come in and update other staff departments seamlessly with the same system.

The final step in the Work Order Management system is the punctual close out of completed work. Closing out of work in a timely manner makes available the information needed. The minimum key performance indicators for an effective Work Order Management system include: craft productivity, PM compliance, schedule attainment and lost time tracking. These metrics will provide management across the site with the information necessary to continuously improve the system.

A maintenance work order system or procedure involves how and by whom the work order be initiated (opened), followed, utilized, inspected, and analyzed in any maintenance department. In summary, a maintenance work order procedure explains the steps of how the work order be managed in the maintenance department.

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