

Intangibles through Manpower Planning: Reviving workload studies

This article is authored by Janmenjaya Sharma, Manager Organization Development with Raysut Cement Company (RCC), Oman, Fellow of the Asian Human Resource Board (Aspi). He has over 12 years of work experience and is a gold medallist in MHRD and MPA. This study was done as a part of his work at RCC.

A survey of 30 HR Managers from the Cement Industry in India and UAE who involved themselves in the exercise of Man Power Planning (MPP) reveals that their concentration remains on accomplishing organization structuring and getting the vacant positions filled. Often this is done through the manpower acquisition forms to be filled in by the respective heads of departments which are then forwarded to the HR Department through the proper channels. The most neglected parts, revealed through this study, were to answer the basic question on how many employees we actually need in the department? Is the process being followed by the department the best and does it confirm the requirement of those numbers of employees?

With these opening facts and thoughts we at Raysut Cement Company took a call to strike at the basics of MPP to make the company aware of actual number of employees we need and why we need them. We were not comfortable with negotiating with department heads for the number of employees they need just on the basis of man power acquisition form and the standard organization structure. The search and literature review on the subject of MPP bring us close to age old scientific study of work load analysis. Ironically from the organizations surveyed none of them uses any such techniques and if uses then not in detail. We got useful techniques from the Defence Services and a few IT & ITES Services organizations.

The process we tailor made for RCC (and hence for cement & manufacturing companies) includes three basic steps:

- 1) Department analysis (purpose, structure, current man power.)
- 2) Process mapping
- 3) Individual work loading for all the functional domain

Department Analysis

The first step in the scientific study of MPP is to know the main purpose of the department and to write the functional definition of the department. The concerned HOD is the main source for this step and the completion of this step comes with his validation on the information thus gained. The department structure has to be made in its present form revealing the names, designation and reporting structure.

Just drawing the department structure is not enough; go beyond to look for the suitability of the present structure. The company's vision, mission, values and culture can serve as the litmus test for this. Also the leadership style of the leaders does affect the benefits from department structure. Here is the time when an 'expert discussion' can take place if there's any requirement in the change of structure itself. The proposed department structure should be presented separately along with the reasons, the benefits and the limitations. You may require having brain storming separately before implementing the same. Also, the process is just beginning so still the confirmations from other two steps are yet to be revealed.

When we analyse the department for its current manpower we must get the information on the tangibles like how many employees are regular, part time, on company pay roll, contract workers, casual workers, male/females, age groups, education, trainings, present address, permanent address, leave data, off days etc. These tangibles can lead us to many intangibles which can help us take major decisions. For example, MPP need not be restricted to present needs only – we can use it for succession planning as well, we can know the

trainable lot of the group, we can know which are our main contractors for the particular job positions, we can know which are the main sources of recruitments and/or placement consultant for the particular job position of the concerned department. (We can try to analyse the effectiveness of the consultant.) A lot of other vital information actually is revealed, which as a Manager HR, we can use to take vital decisions on policy formulation, preparing contract agreement, reward and recognition, bonus and incentive disbursement, recruitment, training, succession planning, career planning, vendor management and for employee engagement programs.

If you are vigilant enough the information revealed by this analysis and the next step can also hint you about the basis of sub groups in the department. This information can be used for better policy implementation.

Process Mapping

As the name suggest the next step is to draw the process map for the department. By process map we mean drawing the logical sequence of main steps followed by the department to accomplish their objectives/purpose. A flow chart often is preferred as of its simplicity in understanding, through flow chart it becomes easy to understand and show inter – intra dependency of the particular step on other steps and on other departments and/or external agencies.

Do not hurry to draw the diagram directly as it will restrict you from other intangible information you may get if the process is followed properly. The best way is to first discuss and write down the process as to how the department works, without deliberately trying to produce the sequence. Once done, sit with the information you have gained and try to find logics and hence sequence; you will be able to know the missing links and gaps. These missing links and gaps are important to know as they are the thieves of efficiency and effectiveness, also the main reason for the under and/or over utilization of man power and thus job dissatisfaction and higher rate of attrition.

Thus you will actually come up with two sets of process diagrams, one which can be termed as standard (often given by HOD) and other which is actually being followed – deviated one (often revealed by the discussions with supervisors and the employees below them). So if you hurry up and take the information from HOD only as the final map you have actually taken a short cut and are depending on restricted sources of information leading to over generalization error. Just to map the process diagram you get to talk to people at different level of the department, otherwise you may end up thinking that work load studies do not work and that they are only to know quantity.

Once completed with the efforts to know the process, the next activity is to get information to fill ‘Operational Audit Data Sheet (OADS) from the HOD and/or Supervisors. OADS is the scientific instrument that will reveal the number of employees required in performing the various steps of the department and thus the total employees the department requires.

How does it work? It takes efforts in the form of three major steps:

- 1) Calculating the conversion factors
- 2) Making the information in the form acceptable to OADS
- 3) Final calculations.

Calculating Conversion Factors (CF)

Conversion factors are the statistical figures which will have the capability of converting any and every man hour requirement to the base of a month. To simply this we can say that conversion factors will convert every man hour requirement in a base unit of a month.

Like for example if there is a job/job activity whose frequency is once in five years with the help of conversion factor we will be able to convert this information in a unit of month for the sake of our calculations.

To calculate the conversion factor the information we need is:

- 1) Number of work days in a week
- 2) Number of off days in a week
- 3) Number of working hours in one work day
- 4) Number of working hours in a one work week
- 5) Number of working hours in a month
- 6) Hours conversion of work done at holidays
- 7) Number of holidays in a year
- 8) Number of yearly leaves/holidays
- 9) Numbers of half days in a year
- 10) Number of special leave, if any in a year

Note: there may be different yearly leaves for different category of employees, so this accounts for the use of different conversion factor for different categories of employees.

To calculate the conversion factor it's scientific to take even the leap year in consideration and take year as with 366 total days rather than 365 days.

Example of calculation:

To calculate the number of **working days in a month**:

$A/12$ where,

$A = 366 - (\text{Number of yearly holidays} + \text{Number of off days in a year} + \text{Number of half days} + \text{Number of special leaves})$

You will be required to calculate working days in a month for each category of employees if there is difference in the number of work days and number of off days, leaves, etc according to category of employees.

Similarly calculate the conversion factors for:

- 1) Monthly
- 2) Weekly
- 3) Biannual
- 4) Annual
- 5) Quarterly
- 6) Daily for seven days
- 7) Daily for 6 days
- 8) Daily for 5 days
- 9) Etc as per the requirement.

Once conversion factors are in place for each category of employees the next step is to collect and convert the information in useable form.

Process mapping has given us the main job steps, now our work is to convert these job steps into job activity and to ascertain the frequency of occurrence and no of employees required. Following form will make it easy to understand and apply:

Process Mapping Form (Collection of information)

S. no	Process Step	Job Activities	Work station (Place of performance)	Frequency of Occurrence	No of people required	Category of People	No of hours required
1							
2							

Things to note:

- 1) Try to account as many job activities as you can.
- 2) Be specific about the category of employees as their will be different conversion factor for different category.
- 3) Don't forget to note down the rarest of rare event as well.
- 4) Frequency of occurrence often needs discussion with the job holder as well.
- 5) Take average of frequency of occurrence, if not clear.
- 6) Be specific on the number of people along with their category.
- 7) Units for number of hours required for performing a job activity can be second, minute, hours, day and beyond that as well.
- 8) For a particular job activity don't forget to note down the individual time requirement of different category of people involved, if it's a group activity.
- 9) When confused it's better to be on little higher than the lower side.
- 10) At the end you must be able to segregate job activities as regular activities, occasional activities and rare events.

Calculation Phase

Once the information is collected in the said format, it is time to do the scientific calculations on OADS. Following is a sample OADS for understanding, translate the information from Process Mapping form into OADS and do the calculation accordingly:

Operation Data Audit Sheet

S.No	Category/Task Title	No. of people required	Frequency			Allowed Work Hours		
			Task Freq	Conver. Factor	Per MO	Per Acco Mp	Per Mo	Category Total
	A	B	D	E	F=DXE	G	H=BXFXG	I
1								
2								
3								

This will be followed by the calculation of:

- 1) Category work hour total (calculated total of OADS)
- 2) Allowed hour hours in a month (calculated at the time of calculating conversion factor)
- 3) Finally the Man Power Requirement = 1) / 2)

Thus at the end of the second step you will have scientific calculation telling you the requirement of number of people in that particular department. If you have done it with over indulgence to find the numbers only and have not been given the enough emphasis on process mapping, you will tend to miss the ample and vital intangible information that is in store along with these quantitative figures. If done properly you will be able to get the deviations in department structure, process followed, reporting structure, groups and sub groups.

This information can tell us a lot about the factors of delays, dissatisfaction and discontentment in the employees. Something which we never think MPP can reveal.

Individual Work Loading

The final step of the scientific study is to calculate the individual work loading for every job category/designation. If we stop only after calculating the manpower requirement through process mapping, we may end up having the partial view of the whole picture. When we take the conscious effort to calculate the individual work load of each job category, we are actually trying to move in more depth first to reconfirm on the information we have gained so far, secondly to check which job category is over utilised/underutilized and to find out the reasons for the same. At the end of this step we can have information on departmental leadership, supervisory skills, departmental politics, the extra job people are doing, the job activities getting neglected, the affect of work distribution, etc. So in essence at the end you have reasoning for the so many questions which keeps haunting you as Manager HR. Individual work load will have the capacity to give you the differentiating figures to decide whether Contract workers or own employees? Out of the Contractors we have which is the one actually contributing? Are the supervisors able enough to supervisor or theirs a sill gap? Is their leadership crises?

To do the individual work loading you will be required to observe, talk, and collect the data of each and every job designation present in the department on the following form:

Name of the job holder:

Designation:

Rank/grade:

S.No	Category/Task Title	No. of people required	Frequency			Allowed Work Hours		
			<i>Task Freq</i>	<i>Conver. Factor</i>	<i>Per MO</i>	<i>Per Acco Mp</i>	<i>Per Mo</i>	<i>Category Total</i>
			A	B	D	E	F=DXE	G
1								
2								
3								
							Category work hour total	
							Allowed working hours per month	
							Work load	

So, once the individual work loading is being done, the final step is to compare the information revealed from the three steps. Make it in a form of a report and use the tangible and in-tangible information available with you to take your vital decisions not only in the arena of recruitment and selection but also in administration, industrial relation, training, OD, PMS.

The whole art is to expand your own thinking about what MPP is and what can be the benefits of work load studies. It's a gold mine: the more you will unearth, the more wealth of job satisfaction, work productivity and retention you will get.