Office productivity is a major concern of managements. One factor is a mistaken view that changes in office productivity cannot be measured and that there is therefore no way of ensuring that action to improve performance achieves tangible results. However, the productivity of office work can be measured, and changes up and down can be detected allowing managerial action to be taken to ensure that improvement takes place. In the following article I suggest how to go about it.

Importance of improving office productivity
Productivity is the relationship between the inputs required to produce a product or service, and the value of the output produced. In a factory this is relatively easy to calculate. A certain amount of material and labor is required at an easily measured cost to produce an article at a known ex-factory price. The inputs and outputs in this case are simple and unambiguous. They can be measured and used as a management control, or as the basis of an incentive payment system.

Productivity in the office is not so clear-cut. Inputs are fairly self-evident: staff equipment, office costs, etc but what of the outputs? What exactly do departments produce - seldom a single simple item? A management accounts department, for instance, will produce a variety of reports, some regular and some 'ad hoc.' They will work on several tasks simultaneously, with constant interruptions, and it will be impossible to apportion the total input to each.

Additionally, in this sort of activity, volume - the number of reports produced - is only one factor in their output. Will the department be twice as useful to the company if it produces twice as many reports? It may be more effective by producing half as many, if it changed to exception reporting for instance, and the lesser number of reports was more useful and relevant.

Productivity is also not increased if a report is completed by one person, instead of two, reducing the input, if it is either incorrect, or produced after the date it is required.

In measuring office work, volume measures are seldom sufficient on their own. Output measures must also take into account the quality of the output, its timeliness, and cost. The effectiveness of the outputs is what matters, rather than the efficiency with which they were produced. For this reason the choice of productivity measures must be related to the purpose and objectives of the department and organization, and the needs of customers.

How to value outputs
All functions in an office have customers for their services, not just those that deal with other organizations or members of the public. The staff of the organization are the customers of the salaries department, which itself is a customer for the data supplied by personnel.

The analysis of who uses the services provided by each function, and the initiation of a dialogue about the value kind delivery performance of each of the services provided is the key to the development of useful performance measures.

If the customer does not want and value the output you are producing, it has no value and you may as well not do it.

Equally what you consider to be the priority for the various services you provide may not be the customer’s priority. When was the last time you asked him or her?

Matching your service more closely to customer requirements can in itself promote significant productivity gains by eliminating unnecessary work. I once undertook a business analysis study on a company’s production planning and control system. The Information Services Department was working flat out producing reports on the various systems that were being run, production planning, production control, admin, stock control, human resources, engineering maintenance planning etc.
In total there were over 100 regular reports produced, with distribution lists of running well into 3 figures at all levels of the organization, over a wide geographic area. Producing these reports was a significant element of IS’s workload, and due to increasing demands for other services, the IS department felt that it was forced, reluctantly, to try and reduce the number of reports produced or expand it’s cost base by employing more.

Part of my role as project team leader in this exercise was to interview the managers who received the information and try to persuade them to reduce their requirements.

In the event the reaction I received was the opposite of that which I had been led to expect. Most managers I spoke to were only too happy to discontinue receiving the reports. Many predated their time in the job, and they merely looked at them, before filing ‘for reference, just in case’.

Many of the managers who needed the reports said that the format was not as they wanted, the information was not exactly what they needed, or they had to make additional calculations, or change the presentation to make it easier to see relationships or trends.

As a result of the review, the number of reports was cut by more than half, and the ones which continued to be produced were changed to make them more useful to the managers involved.

In this case, the performance of the Information Services Department was improved, because what they were producing met the needs of their customers more closely, while at the same time workload and cost were reduced.

The department was more effective, as well as more efficient.

The development of performance measures

No single measure is likely to be able to encompass the range of work undertaken by most offices. A range of measures must be used which reflects the main inputs and outputs of the department. A ‘family’ of measures can reflect the work of the department in a way no single measure can. For example, the key performance measures chosen for a management production control department might be:

- Reports with errors / Total Reports
- Actual cost / Forecast Cost
- Average Report Production Time
- Reports late / Total Reports
- Number of reports / Number of staff
- Average Cost of Reports

These measures should encompass the range of inputs used: labor, materials, capital and equipment, and the measures should encompass the factors of quantity, quality, timeliness and cost.

A family of measures such as these, related to the real objectives of the department, allows the level of performance to be measured and monitored over time to establish whether it is stagnating, declining or improving. It allows the effect of productivity initiatives to be established and focuses managers’ attention on the need to improve productivity, the only true way to improve a company’s competitive position.

<table>
<thead>
<tr>
<th>Measure (Weight)</th>
<th>Measure (Weight)</th>
<th>Weighted Value Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports / Man (60%)</td>
<td>% Report Errors (40%)</td>
<td>(Reports)</td>
</tr>
<tr>
<td>Actual</td>
<td>Index</td>
<td>Actual</td>
</tr>
<tr>
<td>Week 1</td>
<td>7.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Week 2</td>
<td>7.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Week 3</td>
<td>8.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Week 4</td>
<td>8.5</td>
<td>7.0</td>
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<tr>
<td>Week 5</td>
<td>7.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Week 6</td>
<td>8.0</td>
<td>9.0</td>
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<tr>
<td>Week 7</td>
<td>8.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Week 8</td>
<td>7.5</td>
<td>5.0</td>
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Indexing performance measures

In order to be able to compare dissimilar measures, such as cost and quality, to see the inter-relationships between them, it is possible to index the measures scores, and so convert them to the same scale. If a weighting is applied, an overall productivity index can be created.

The index scale is created by establishing a target performance for each measure. This is useful in itself, as people and work groups should have targets for quality of service so that they know the standards of work that they are expected to achieve. The bottom of the target range is defined as the minimum level of service that can be permitted. Intermediate values are calculated for scores between these ranges. For example see Figure 1.

Dissimilar measures can then be compared, and combined to produce an overall performance measure. This is shown in Figure 2.

In this example, the volume of output is rising, but the error rate is increasing as a consequence. The relative importance of the measures as defined by the weightings attached and by this standard the overall performance of the work group has declined.

This method of indexing performance measures, and calculating an overall, multi-factor, performance index was developed in the US by the University of Oregon, and is called an objectives matrix.

PC performance reporting

This all seems very complicated, but there is a simple computer program for PCs which guides departmental managers through a process of considering the purpose and objectives of their department and company, assists in the identification of customers and their needs, helps in the development of measures, and the collection, calculation and presentation of the data.

An example of the type of report that can be produced by the program is illustrated in figure 3. In this example the number of reports per number of staff has increased, but with a corresponding increase in the number of errors.

It’s relatively easy to setup a spreadsheet to do the number crunching and generate the graphs for your particular department using the information outlined in this paper.

Using performance measures

Of course, measuring productivity in this way is not an end in itself. A once off calculation is of very limited use. However as data is collected over time, trends can be determined to show where productivity improvements are occurring, and where action is needed to correct stagnant or declining performance. The effects of action can be progressively monitored, and progress compared between departments. The development of performance measures will focus attention on the need to continually improve productivity in order to maintain and improve the competitiveness of the organization.

This approach to performance measurement has been extensively used in the United States, for office workers at all levels, from clerks to scientists, and also for workers in service industries. A consortium of major companies and government organizations, including 3M, Westinghouse, Northern Telecom, Chrysler Corporation, Nabisco Brands, the US Army, Navy and the departments of Commerce, Education and Justice, developed the software, which is used to assist in this process.

Conclusion

This method of monitoring the performance of office and service staff works. It will enable you to identify your current levels of performance, and where action is needed to improve them. It will provide feedback of the effects of your actions, and ensure that the performance of your staff continually improves.

http://www.accel-team.com/
Contact: Cliff F. Grimes
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Productivity Improvement Collection
An indispensable set of supervisory guides for the simple analysis, measurement and improvement of departmental and organizational productivity

Transform your workplace

The resources in the Accel Productivity Improvement Collection will enable you to transform existing conditions (see schematic) to improve business and employee productivity.

- Measure performance, utilization and efficiency
- Set accurate performance standards
- Make improvements to processes, products and services
- Involve employees in improving productivity
- Achieve goal congruence
- Improve working conditions
- Cultivate a productivity improvement culture
- Improve your management and leadership skills
- Get on top of your job

What’s the real problem?

Evaluate the schematic opposite. Your real problem will lie with work content added (A, B) and or ineffective time (C, D). Whether your organization produces a product or provides a service, the Productivity Improvement Collection will assist you in defining the real problem, then solving it.

It’s not rocket science

These resources do not expect you to be an industrial engineer. All that is required, to make improvements, is a modicum of common sense, tact, grit and patience in a spirit of cooperation and consultation.

How production and service time is made up

...how to view work

TOTAL WORK CONTENT

TOTAL TIME OF OPERATION UNDER EXISTING CONDITIONS

TOTAL INEFFECTIVE TIME

BASIC WORK CONTENT of product or service

WORK CONTENT ADDED by defects in design or specification

WORK CONTENT ADDED by inefficient methods of manufacture or operation

INEFFECTIVE TIME due to shortcomings of management

INEFFECTIVE TIME due to shortcomings of workers

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Use above supervisory guides contained in the Productivity Improvement Collection to reduce A, B, C, and D work content, in order to reduce the overall time it takes to produce your goods or services.

A1. BAD DESIGN OF PRODUCT / SERVICE prevents use of most economical processes
A2. LACK OF STANDARDIZATION prevents use of high-volume processes
A3. INCORRECT QUALITY STANDARDS cause unnecessary work
B1. WRONG MACHINES used
B2. PROCESS NOT OPERATED CORRECTLY or in bad condition
B3. WRONG TOOLS used
B4. BAD LAYOUT causing wasted movement
B5. OPERATIVE’S BAD WORKING METHODS
C1. EXCESS PRODUCT VARIETY adds idle time due to short runs
C2. LACK OF STANDARDIZATION adds idle time due to short runs
C3. DESIGN CHANGES add ineffective time due to stoppages and rework
C4. BAD PLANNING of work and orders adds idle time of manpower and machines
C5. LACK OF RAW MATERIALS due to bad planning adds idle time of manpower and machines
C6. PLANT BREAKDOWNS adds idle time of manpower and machines
C7. PLANT IN BAD CONDITION adds ineffective time due to scrap and rework
C8. BAD WORKING CONDITIONS add ineffective time through forcing workers to rest
C9. ACCIDENTS add ineffective time through stoppages and enforced absence
D1. ABSENCE, LATENESS AND IDLENESS add ineffective time
D2. CARELESS WORKMANSHIP adds ineffective time due to scrap and rework
D3. ACCIDENTS add ineffective time through stoppages and enforced absence

Total Work Content of the Product
WORK CONTENT ADDED by defects in design or specification of product / service

Total Work Content
WORK CONTENT ADDED by inefficient methods of manufacture or operation

Time of Operation within the Control of the Management
INEFFECTIVE TIME due to shortcomings of management

Total Time of Operation under Existing Conditions
INEFFECTIVE TIME within the control of the worker