47.5% average increase in factory productivity – survey results

By Sean O'Sullivan
Otago University and managing director of Empower Software.
seansos@ihug.co.nz

This article profiles survey results from 21 manufacturers who have invested in PCs on their factory floor and time tracking and labour management software.

The 2009 June end survey of 21 manufacturers who invested in time tracking and labour management software concluded:
1. The average increase in factory productivity was 47.5%;
2. The median manufacturer's increase in factory productivity was 35%;
3. The lowest manufacturer's increase in factory productivity was 15%;
4. The highest manufacturer's increase in factory productivity was 160%.

The 47.5% average increase in factory productivity was weighted upwards significantly by the following four manufacturers: **Homeplus Southland** 160%, **Classique Furniture** 103%, **Lochiel Engineering** 70% and **Rose and Heather Furniture** 60%.

The median manufacturer achieved a 35% increase in factory productivity within six months of using the factory productivity software.

The survey showed the manufacturer with the lowest increased factory productivity – at 15% – reduced staff by four whilst maintaining output, saving $140,000 per year in wage costs. It also showed the manufacturer making the highest gain increased factory productivity by 160%. In year one, nine staff were reduced to five whilst factory output was maintained. In year two the five staff then achieved twice the factory output that the original nine staff were achieving. This increase in factory productivity increased annual profit four fold.

The key reasons for the significant increases in factory productivity include:

1. Factory staff seeing budgeted time before they start of each job and seeing their actual time on completion of each job. This ensured staff focused on meeting or beating the times and most staff actually worked to beat the times;

2. Good staff consistently beating the budgeted times by substantial margin, which confirmed to management their commitment and value to the business;

3. Competitive nature of factory staff. Peter wanting to show other staff that his times are consistently the best in the factory;

4. Staff had to log onto all forms of downtime jobs. Downtime was tracked and reported enabling downtime to be substantially reduced;

5. When factory staff were not logged onto a manufacturing job or down time job this was reported as unaccounted time. Management could ensure that unaccounted time is reduced to a target maximum ten minutes per day so staff then worked the remainder of the day and all remaining time was accountable to manufacturing jobs or downtime jobs;

6. Production management's ability to see jobs and times live. Where issues occurred management could act straight away;

7. There is no hiding from the system. All staff are totally accountable for all time daily and weekly including:

- time on manufacturing jobs ____ hours
- time on downtime jobs ____ hours
- time unaccounted ____ hours

Total time = 40 hours

8. Related to number 7 above, the following actual times were reported against budgeted times for the following to confirm staff and factory productivity:

- Time on manufacturing jobs ____ hours
- Time on downtime jobs ____ hours
- Time unaccounted ____ hours

Total time = 40 hours

> "Production management can use the data in the system to advise Paul that the job can be completed in four hours because, for example, four hours is only the current average of times on that job or similar jobs."

9. Production management no longer have to accept poor excuses from staff for significant overruns in time on jobs. Production management can use the data in the system to advise Paul that the job can be completed in four hours because, for example, four hours is only the current average of times on that job or similar jobs. Or production management advise Paul that Peter consistently completes the same job in three hours, which is an hour less than budget – so the four hour budget is realistic and very achievable;

10. Far better assignment of jobs to staff and production planning. This resulted from production management always having live up to the minute reporting of all jobs currently in the factory and those scheduled to immediately go into production.

The 47.5% average increase in factory productivity surveyed across twenty one manufacturers was significant - considering a 30% increase in factory productivity is estimated to double most manufacturers annual profit. -S-