

ENGINEUITY TUTORIAL



Measured Value (Turnover)



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Financial Performance

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Management consultants report Graphical analysis

OPERATIONAL

SHAREHOLDERS

INVESTMENTS

Summary

Assets and liabilities

Per	Status	Year/qtr	Job performance				Company performance				Shareholders		Future outlook		
			Total value	Total cost	Gross profit	GP % cost	Overhead costs	OVH % of cost	Net operating profit	NOP % cost	Share price	Dividend % cost	Company value	Forward workload	Forward margin
1	History	2022 (Q1)	0	0	0		34,080		-31,580		0.87		4,843,420	0	0
2	History	2022 (Q2)	0	0	0		68,000		-65,829		0.99		4,665,747	11,990,650	521,455
3	History	2022 (Q3)	5,320,862	5,001,016	319,846	6.4 %	151,720	3.0 %	138,329	2.8 %	1.10	2.0 %	4,684,088	19,179,280	819,623
4	History	2022 (Q4)	12,289,370	11,951,040	338,333	2.8 %	135,000	1.1 %	169,162	1.4 %	1.09	0.9 %	4,733,826	18,970,680	790,808
5	Early Years	2023 (Q1)	9,844,018	9,518,447	325,571	3.4 %	172,690	1.8 %	127,580	1.3 %	1.14	1.1 %	4,732,459	24,031,360	1,023,725
6	Early Years	2023 (Q2)	12,253,240	11,865,780	387,460	3.3 %	174,430	1.5 %	178,807	1.5 %	1.17	1.0 %	4,776,759	33,465,260	1,405,883
7	Early Years	2023 (Q3)	16,212,540	15,455,030	757,510	4.9 %	207,380	1.3 %	446,623	2.9 %	1.33	0.8 %	5,085,848	28,047,780	1,184,132
8	Early Years	2023 (Q4)	14,633,200	14,025,150	608,054	4.3 %	222,040	1.6 %	320,247	2.3 %	1.36	1.4 %	5,184,531	30,541,970	1,214,636

PERIOD 8

CLICK ON A LINE IN THE THE SUMMARY ABOVE TO SHOW THE PERIOD DETAILS

JOB PERFORMANCE

Measured value:	14,671,130	?
Early completion bonus:	0	
(less) Retention held:	176,054	
Retention repaid:	138,100	
Total value:	14,633,200	
(less) Costs:	14,025,150	
Gross profit:	608,054	

COMPANY PERFORMANCE

(less) Overheads:	222,040	?	(1.6 % of job costs)
Gross operating profit:	386,014		
(less) Corporation tax:	62,668	?	
(plus) Credit interest:	0		
(less) Overdraft interest:	3,099	?	
Net operating profit:	320,247		(2.3 % of job costs)

FUTURE OUTLOOK

Forward workload:	30,541,970	?
Forward margin:	1,214,636	

The **measured value**, also referred to as **turnover**, in the period is the amount of money the company receives from progressing all the jobs in progress, and is directly related to the amount of effective labour on each job.

The **measured value** can be thought of as a measure of the amount of work that the company is undertaking at any particular time.

We can use the **? drill down** to see how the measured value is determined for the period.



Measured Value (Turnover)

Job details					Period analysis			
Job	Desc	Sector	Size	Client	Measured Value	Early Completion Bonus	Job Cost	Job Profit
75	Construct state of art composting unit	Water & Sewage	Small	Fenlands County Council	42,658	0	146,553	-103,895
82	New VIP lounge at Baghdad Airport	Building & Commercial	Medium	Iraq TranGen 2009	1,833,306	0	1,761,769	71,537
110	Upgrade of power generation desalination plant	Energy	Medium	Emirates Energy	5,980,984	0	5,487,805	493,179
118	New distribution facility	Building & Commercial	Medium	Master Brewers UK	2,472,206	0	2,291,846	180,360
128	Installation of filtered pipeline	Water & Sewage	Small	Dales Water Services	1,288,346	0	1,232,218	56,128
137	Major investment in flood defences	Water & Sewage	Medium	The Environment Department	3,053,625	0	3,104,954	-51,329
Display details for					14,671,130	0	14,025,150	

In the example shown the **measured value** is made up from **6 jobs progressed in the period**.
We can use the **'Display details'** option see how the measured value is determined for each job.



Measured Value (Turnover)

JOB SUMMARY

JOB PROGRESS

Job progression											Profit analysis			
Planned schedule			Actual progress								By period		Cumulative	
Job period	Planned labour	Cumul % complete	Period	Status	Actual labour	Ineffect due to delays	Ineffect due to overman	Effective labour	Actual % complete	Completion status	Profit	Profit % of cost	Cumul profit	Cumul profit % of cost
1	43	30 %	7	Past	43	0.8	0.0	42.2	29.93 %	Behind schedule	239,238	7.4 %	239,238	7.4 %
2	72	80 %	8	Past	73	0.0	0.0	73.0	81.56 %	Ahead of schedule	493,179	9.0 %	732,417	8.4 %
3	29	100 %	9	Current						FINAL planned period of the job				

Total planned labour needed to complete the job is 144.
 For a Energy job, the effective labour on site (after delays) cannot be more than 18% above the planned labour level for the period.

PERIOD 8 CLICK ON A LINE IN THE THE SUMMARY ABOVE TO SHOW THE DETAILS FOR EACH PERIOD THE JOB HAS BEEN PROGRESSED

LABOUR ANALYSIS	COST ANALYSIS	VALUE AND PROFIT ANALYSIS
PLANNED SCHEDULE	BUILD RELATED	Measured value: 5,980,984 ?
Required labour: 72	Build cost: 4,562,588 ?	Early completion bonus: 0
Overmanning of: 18 % permitted	Site cost: 911,697 ?	Total value: 5,980,984
Effective labour limit (ELL): 85.0	Risk cost: 0	Total cost: 5,487,391
LABOUR ALLOCATED	Late completion penalty: 0	Total profit: 493,593 (9.0 % of costs)
Own: 73	ADDITIONAL LABOUR COSTS	PROGRESS RATE
Sub: 0	Ineffective labour due to overmanning: 0	Amount of the job completed: 81.56 %
Total labour allocated: 73 ?	Ineffective labour due to completing the job: 0	Progress complete: 81.56 % of schedule
(less) labour lost by delays: 0 (ineffective)	Training new recruits (Own): 0	Cumulative profit: 732,417 (8.4 % of costs)
Effective level after delays: 73.0	Labour payoffs (Own): 0	
(less) overmanning above the ELL: 0 (ineffective)	Subcontractor cost: 0	
Effective labour on site: 73	PROJECT MANAGER	
	Allocated: Ron Garvey ?	
	Overall performance: excellent	
	Salary: 13,000	
	Bonus: 520 (4 %)	
	Recruitment cost: 0	
	Relocation fee: 0	
	Previous payoff: 0	

We can use the ? drill down to see how the measured value is determined in period 8.



Measured Value (Turnover)

Measured Value for Job 110 in Period 8

Effective labour on site in the period:	73	x	
The value earned by a labourer each period:	80,451		(the bid submitted for the job 11,584,980 divided by the total planned labour for the job 144 labourers)
Expected value:	5,872,23		
Adjustments:		%	Project manager expertise increases job value by 1.31% The level of own labour layoffs across the company increases job value by 0.03% The number of subcontractors used across the company increases job value by 0.5%
Actual value:			
Adjustment:		%	
Measured value:			

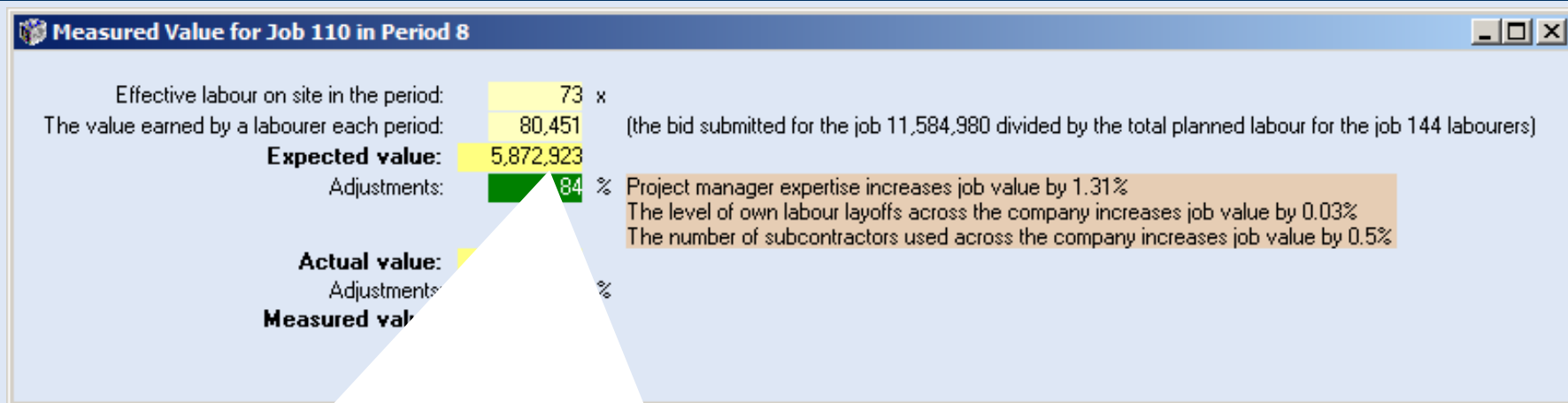
LABOUR PRODUCTIVITY

The amount of money generated by each effective labourer used on site in a period, a measure of labour productivity, is known as the **expected value per man period**, and is calculated as follows :-

$$\text{Expected value per man period} = \text{Bid value} / \text{Total labour (man periods)}$$



Measured Value (Turnover)



EXPECTED VALUE

The expected value is the amount of money that is expected to be earned from the client by progressing a job in the period, and is based upon the amount of effective labour on site.

Expected value = Effective labour on site x Expected value per man period



Measured Value (Turnover)

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Actual value:	5,980,984	
Adjustments:	0 %	
Measured value:	5,980,984	

ACTUAL VALUE

The actual value is the expected value adjusted to take into account a number of factors that can increase/reduce the productivity of the labour used on the job :-

- The performance of the project manager allocated to the job
- The labour relations policy of the company



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Adjustments:	0 %	
Measured value:	5,980,984	

MEASURED VALUE

The measured value is the actual value adjusted by the measurement effort of the company for the period.

The measurement effort depends upon how well the company's measurement staff (quantity surveyors) are able to cope with the turnover in the period across all jobs. An understaffed measurement department will not be able to extract from the client all the value from the jobs progressed.

The last period of the history provides the benchmark for determining the appropriate level of staff required each period.