LAMPIRAN

Lampiran 1. Kuesioner

KUESIONER EFISIENSI USAHATANI

Hari, tanggal : ……

Bersamaan dengan kuisioner ini, Peneliti bermaksud meneliti mengenai efisiensi usahatani komoditas Jagung. Tujuan penelitian yaitu menganalisis faktor-faktor produksi yang berpengaruh nyata dalam usahatani jagung. Untuk itulah, Peneliti memohon kerjasama Bapak/Ibu agar bersedia menjadi responden penelitian ini serta bersedia mengisi kuisioner ini dengan benar demi keabsahan data-data yang dibutuhkan. Terimakasih.

A. Karakteristik Rumah tangga

Karakteristik rumah tangga	Kode	Isian	Keterangan isian
Identitas Responden	A1		
Nama	A2		
Alamat (RT, RW, dusun)	A3		
No. HP	A4		
Umur	A5		Tahun
Jenis Kelamin	A6		1 = Pria ; 0 = Wanita;
Pendidikan	A7		0 = Tdk sekolah; 1= SD tdk tamat; 2 = SD tamat; 3 = SLTP; 4 = SLTA; 5 = Diploma/PT
Pekerjaan utama	A8		1 = Petani; 2 = Pedagang; 3 = Jasa; 4 = Karyawan/ Pegawai/ Pekerja
Jumlah anggota keluarga	A9		Jumlah anggota keluarga yang tinggal serumah
Jumlah anggota keluarga yang tidak bekerja	A10		Jumlah anak dibawah usia 0-15 tahun yang tidak bekerja

B. Aset Kepemilikan Lahan Pertanian

Pemilihan lahan	Luas (Ha)		Sertifikasi lahan	
	Kode	Isian	Kode	Isian (1 = sertifikat; 0 = belum)
Sawah	B1		B5	

Tegal	B2		B6	
Pekarangan	B3		B7	
Kolam/tambak	B4		B8	

C.Sumberdaya Lahan (Jagung)

Sumberdaya Lahan	Kode	Isian	Keterangan isian
Luas lahan	C1		Hektar
Jenis lahan	C2		1 = Sawah irigasi; 2 = Sawah tadah hujan; 3 = Tegal
Status penguasaan	C3		1 = Milik; 2 = Sewa; 3 = Bagi hasil

D. Penggunaan benih

Penggunaan benih	Yang dilakukan petani		
	Kode	Isian	Keterangan isian
Jumlah	D1		Kg/ satuan lainnya sebutkan …….
Jenis benih	D2		1 = Lokal; 2 = Unggul; 3 = Hibrida; 4 = …….
Nama varietas	D3		Sebutkan nama varietasnya
Harga benih/bibit	D4		Harga pembelian bibit dalam kg atau satuan lain, sebutkan …….

E. Penggunaan Pupuk

Penggunaan pupuk	Yang dilakukan petani				Yang dianjurkan/direkomendasikan		
	Jumlah		Nilai				
	Kode	Satuan	Kode	Harga	Kode	Satuan	Keterangan isian
1. Pupuk Urea	F1		F9		F17		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
2. Pupuk TSP/SP36	F2		F10		F18		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
3. Pupuk KCl	F3		F11		F19		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
4. Pupuk NPK	F4		F12		F20		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
5. Pupuk ZA	F5		F13		F21		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
6. Pupuk Kandang	F6		F14		F22		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
7. Pupuk Kompos	F7		F15		F23		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran
8. Pupuk …….	F8		F16		F24		Isikan jika ada anjuran (kg/satuan) atau 0 = jika belum ada anjuran

F. Penggunaan Pestisida dan Herbisida

Jenis Pestisida dan Herbisida	Yang dilakukan petani		Yang dianjurkan/direkomendasikan
	Jumlah	Nilai	

	Kode	Satuan	Kode	Harga	Kode	Satuan	Keterangan isian
1. ……..	G1		G7		G13		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran
2. …….	G2		G8		G14		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran
3. …….	G3		G9		G15		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran
4. …….	G4		G10		G16		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran
5. …….	G5		G11		G17		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran
6. …….	G6		G12		G18		Isikan jika ada anjuran (liter/satuan) atau 0 = jika belum ada anjuran

G. Penggunaan Modal

Asal sumber modal pinjaman	**Jumlah** (Rp)		**Asal sumber modal pinjaman**	**Jumlah** (Rp)	
	Kode	**Isian**		**Kode**	**Isian**
Bank	H1		Gapoktan	H4	
Koperasi	H2		KUR	H5	
Kelompok Tani	H3		…….	H6	

H. Penggunaan Tenaga Kerja

Tenaga Kerja	**Tenaga Kerja Dalam Keluarga**		**Tenaga Kerja Luar Keluarga**			
	Jumlah Orang		**Jumlah Orang**		**Nilai Tenaga Kerja** (Rp)	
Jumlah tenaga Kerja	**Kode**	**Isian**	**Kode**	**Isian**	**Kode**	**Isian**
a. Pengolahan lahan	I1		I9		I17	
b. Penanaman	I2		I10		I18	
c. Pemupukan	I3		I11		I19	
d. Penyiangan	I4		I12		I20	
e. Penyemprotan pestisida	I5		I13		I21	
f. Pengairan	I6		I14		I22	
g. Panen	I7		I15		I23	
h. ……..	I8		I16		I24	
Hari Kerja	**Jam/hari**		**Upah/hari**			
	Kode	**Isian**	**Kode**	**Isian**		
Hari kerja pria	I25		I28			

Tenaga Kerja	Tenaga Kerja Dalam Keluarga		Tenaga Kerja Luar Keluarga			
	Jumlah Orang		Jumlah Orang		Nilai Tenaga Kerja (Rp)	
Jumlah tenaga Kerja	Kode	Isian	Kode	Isian	Kode	Isian
Hari kerja wanita	I26		I29			
Hari kerja ternak	I27		I30			

I. Produksi

Indikator	Kode	Isian	Keterangan
Produksi hasil panen (kw)	J1		Sebutkan jumlah, satuan lainnya disebutkan ….
Bentuk yang dijual	J2		1 = Jagung tongkol basah; 2 = Jagung tongkol kering; 3 = Jagung pipilan
Penanganan pasca Panen	J3		Sebutkan biaya yang dikeluarkan dalam Rupiah dari jumlah produk yang diperlakukan kegiatan ini dan taksir biayanya walaupun berasal dari dalam keluarga. Isikan nol (0) jika tidak melakukan
Pengeringan	J4		
Sortir	J5		
Pengolahan	J6		
Pengemasan	J7		
Biaya Angkut	J8		Sebutkan biaya dalam satuan rupiah dari total produk yang dijual angkutan
Sistem penjualan	J9		1 = Tebasan/borongan; 2 = Persatuan berat; 3 = ijon; 4 =…..
Lembaga pembeli	J10		1 = Tengkulak; 2 = Pedagang pengumpul; 3 = Pedagang besar; 4 = Koperasi; 5 = Pengecer; 6 = Pengolah; 7 = ……
Jumlah produk yang dijual (kw)	J11		Besarnya jumlah produk yang dijual
Harga jual (kw)	J12		Harga penjualan, satuan lainnya disebutkan ….
Nilai penjualan (Rp)	J13		Nilai penjualan total dalam satuan rupiah (termasuk ijon dan tebasan)

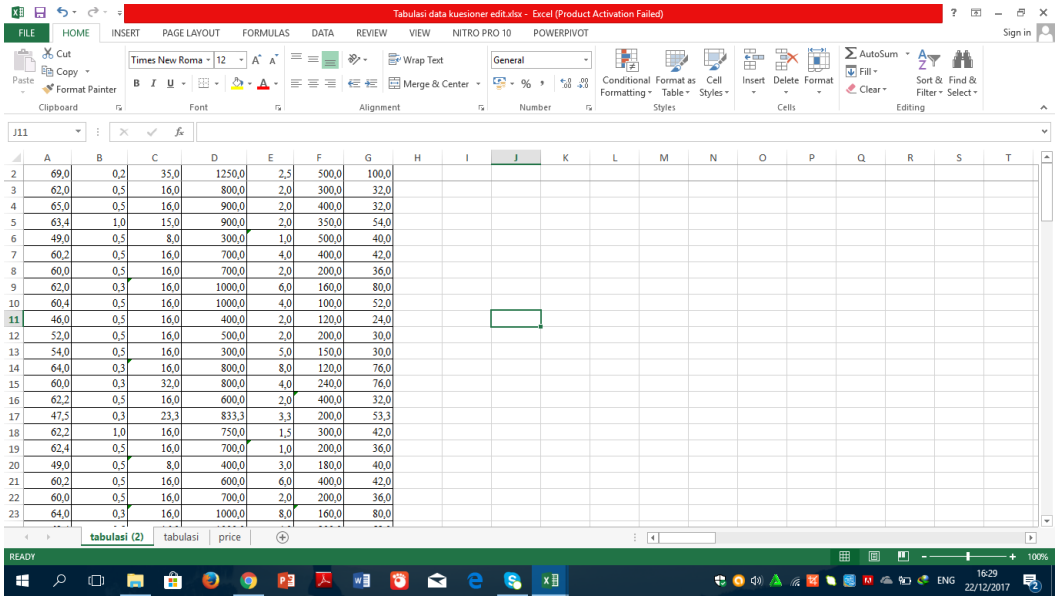
Lampiran 2.Data Responden

No.	Nama	Umur	nilikian	Pendidikan	lah Kelu	amber Mo	duksi dala	Lahan dala	Benih dala	Pupuk Org	(Pupuk U	(Pupuk Z	(Pupuk N	7 (Pestisid	TK dlm H
01	Saikur Roz	30	1	2	4	1	13,8	0,20	7	100	150	100	100	0,5	20
02	M. Gufron	47	0	4	4	1	31,0	0,50	8	150	300	100	100	1	16
03	M.Sobikhu	32	0	4	3	0	32,5	0,50	8	200	300	100	150	1	16
04	Yunian Ru	34	0	4	2	0	63,4	1,00	15	350	600	200	300	2	54
05	Mulyanto	44	0	2	5	0	24,5	0,50	4	250	100	100	50	0,5	20
06	Fauzan	60	1	3	3	0	30,1	0,50	8	200	300	50	50	2	21
07	M. Thoyyi	47	0	3	2	0	30,0	0,50	8	100	250	100	100	1	18
08	Misjab	52	0	4	4	0	15,5	0,25	4	40	150	50	100	1	20
09	Nahrowi	55	1	2	3	1	30,2	0,50	8	50	300	100	200	2	26
10	Tutur	60	1	3	3	1	23,0	0,50	8	60	150	0	50	1	12
11	Katiman	55	0	2	4	1	26,0	0,50	8	100	200	0	50	1	15
12	Rosid	52	1	3	3	1	27,0	0,50	8	75	100	0	50	2,5	15
13	Kadim	71	0	1	2	1	16,0	0,25	4	30	150	50	50	1	19
14	Samad	65	0	2	3	1	15,0	0,25	8	60	150		50	1	19
15	Poniman	55	0	1	4	1	31,1	0,50	8	200	200	50	100	1	16
16	Imam Tau	40	1	1	4	1	14,3	0,30	7	60	150	50	100	1	16
17	Imam Buc	55	0	1	3	1	62,2	1,00	16	300	550	150	200	1,5	42
18	Suwarno	51	1	3	3	0	31,2	0,50	8	100	250	100	100	0,5	18
19	Suwandi	44	0	2	5	0	24,5	0,50	4	90	150	100	50	1,5	20
20	Sujarwo	60	1	3	3	0	30,1	0,50	8	200	250	100	50	3	21
21	Imam Baic	47	0	3	2	0	30,0	0,50	8	100	250	100	100	1	18
22	Syamsudin	52	0	4	4	0	16,0	0,25	4	40	150	50	100	2	20
23	Tumirin	55	1	2	3	1	31,2	0,50	8	100	350	100	150	2	26
24	Ngadimin	60	1	3	3	1	24,0	0,50	8	150	150	0	50	2,5	12
25	M. Ghofur	32	1	2	4	1	13,8	0,20	7	75	150	50	150	0,5	20
26	Zainudin	47	0	4	4	1	31,0	0,50	8	100	300	100	100	2	16
27	Yunus Zei	32	0	4	3	0	32,5	0,50	8	100	300	100	150	1	16
28	Sutiman	48	0	4	2	0	63,4	1,00	15	350	550	250	250	2	54
29	Sumirin	60	1	3	3	0	30,1	0,50	8	200	300	50	50	1	21
30	Parman	47	0	3	2	0	30,0	0,50	8	100	250	100	100	1	18
31	Sugeng	42	0	4	4	0	15,5	0,25	4	40	150	50	100	2,5	20
32	Kusmaji	56	1	2	3	1	30,2	0,50	8	200	300	100	200	2	26
33	Nur Ali	54	1	3	3	1	23,0	0,50	8	150	150	0	50	2	12
34	Saipul	50	0	3	4	1	26,0	0,50	8	175	200	0	50	1	15
35	Subani	44	1	3	3	1	27,0	0,50	8	200	100	0	50	1,5	15

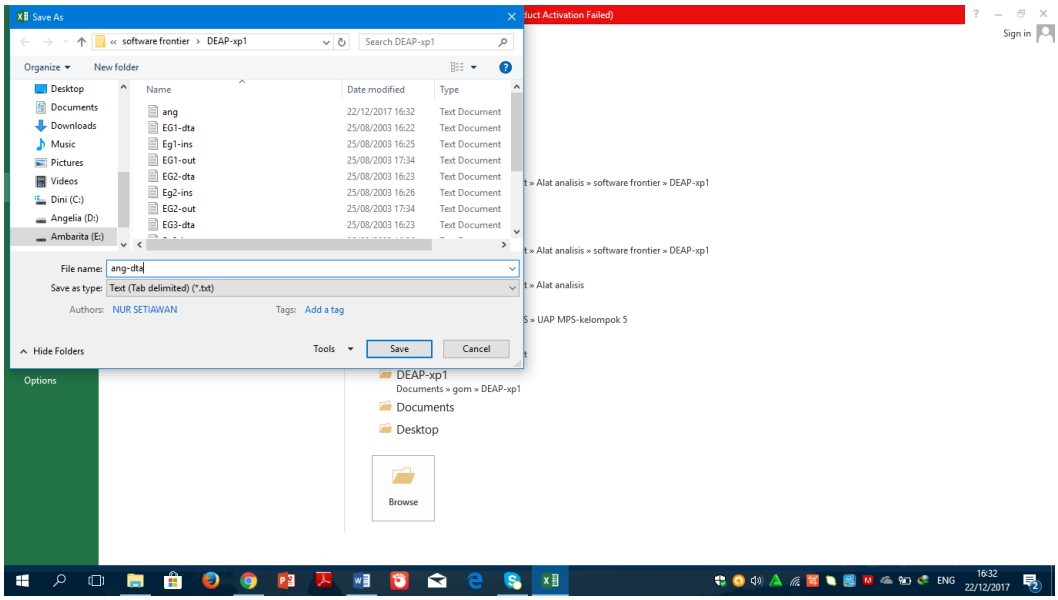
36	Sumardi	60	0	4	2	1	16,0	0,25	4	100	150	50	50	1,5	19
37	Agus Supr	57	0	2	3	1	15,0	0,25	8	90	150		50	2	19
38	Trubus	47	0	1	4	1	31,1	0,50	8	200	200	50	100	2	16
39	Imam Bas	70	1	4	4	1	14,3	0,30	7	70	150	50	100	2	16
40	Kariman	49	0	2	3	1	62,2	1,00	16	300	550	150	200	1,5	42
41	Basiran	48	1	4	3	0	31,2	0,50	8	150	200	100	100	0,5	18
42	Tugimin	58	0	3	5	0	24,5	0,50	4	200	100	100	50	1	20
43	Jayus	49	1	2	3	0	36,4	0,36	9,6	200	300	50	50	0,5	21
44	Wanto	59	0	2	2	0	12	0,14	4	100	250	100	100	1	18
45	Samsul	60	1	2	3	1	13,8	0,20	7	50	150	100	100	0,5	20
46	Haryono	45	0	4	3	0	63,4	1,00	15	300	600	200	300	2	54
47	Subur	40	1	4	2	1	30,0	0,50	8	100	250	100	100	1	18

Lampiran 3. Petunjuk penggunaan Aplikasi DEAP 2.1

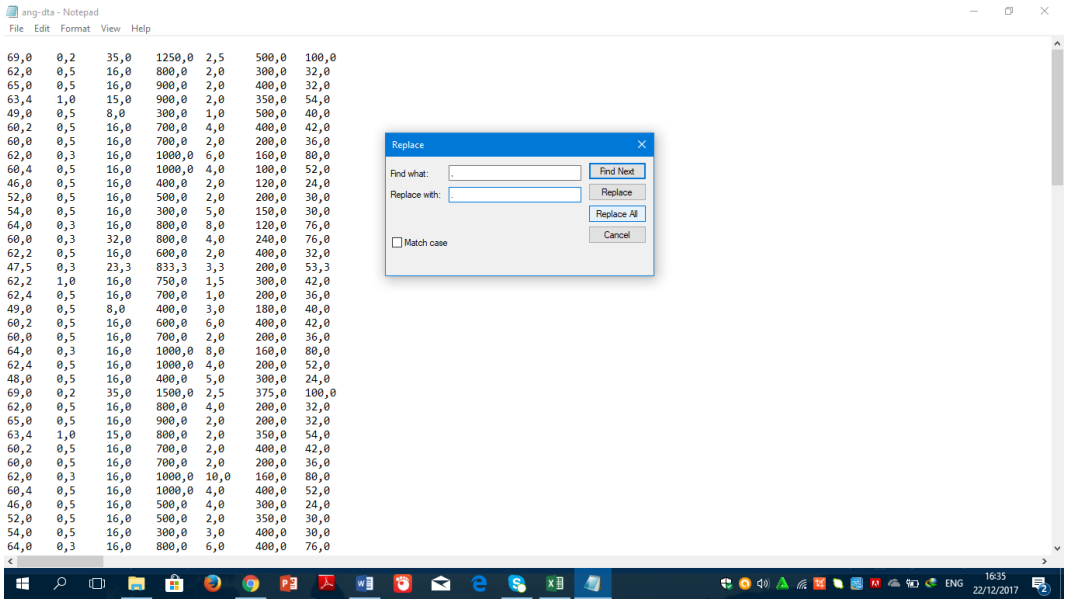
1. Data dalam bentuk excel



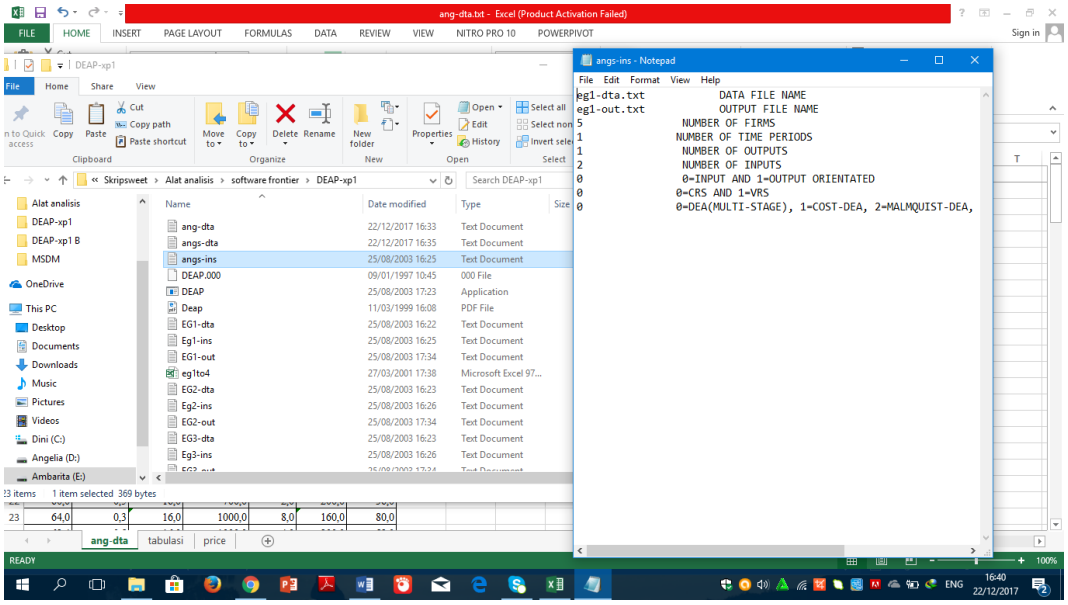
2. Save as dalam bentuk tab-delimited.txt dan ubah nama file



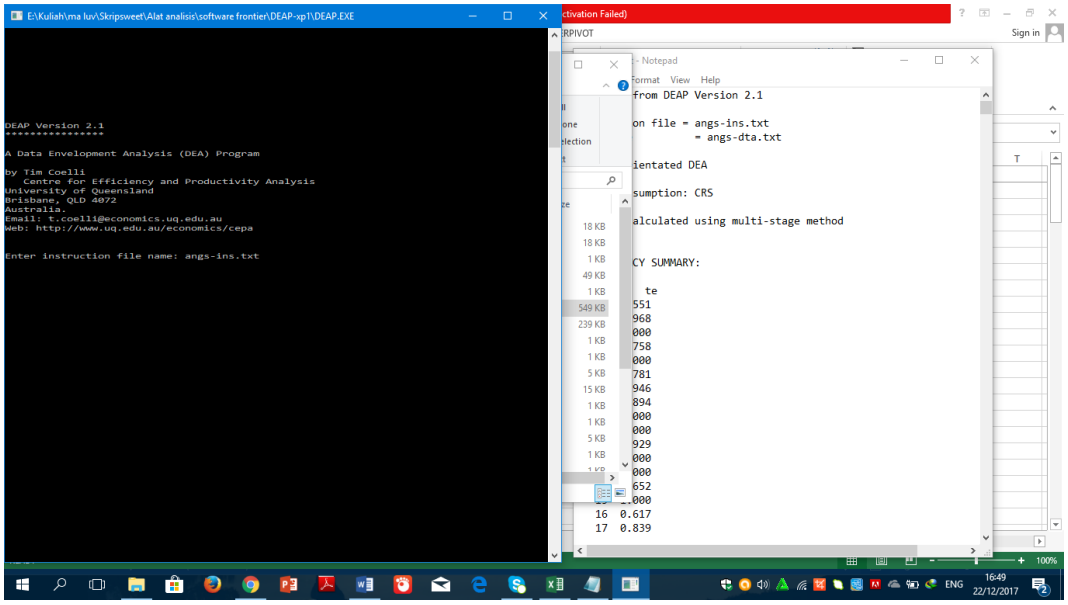
3. Harus menggunakan titik sebagai standar internasional, jika belum diubah terlebih dahulu



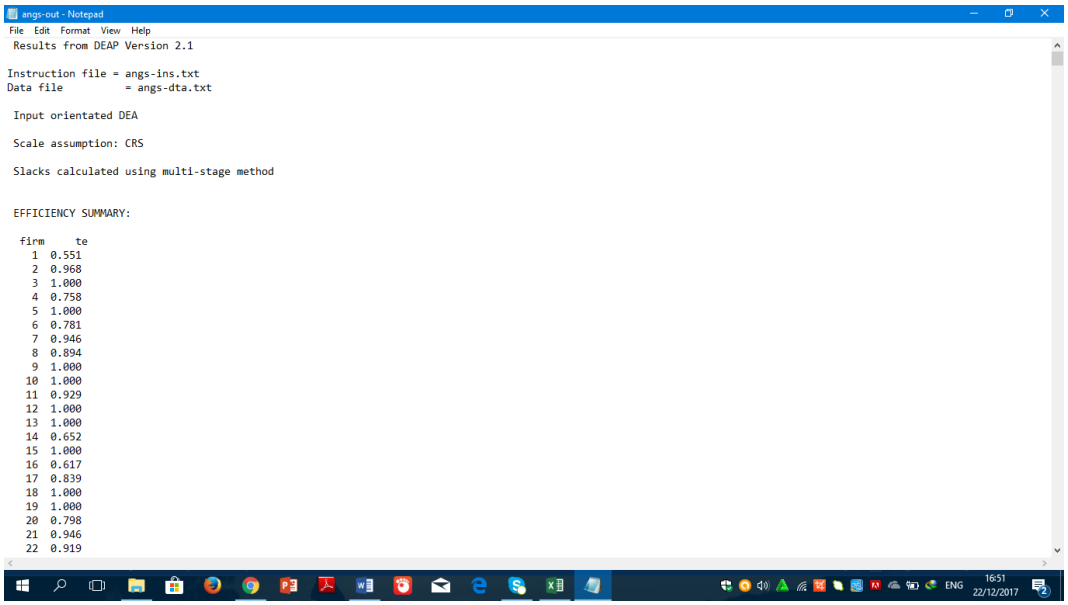
4. Buka file ins, dam edit sesuai dengan kebutuhan:



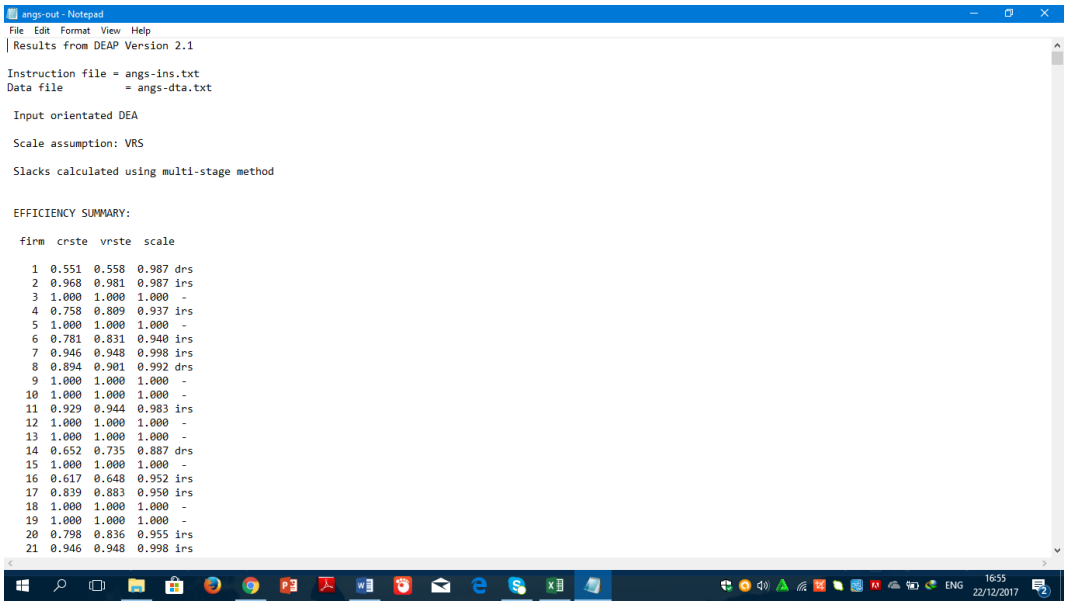
5. *Input* ke aplikasi DEA-P dengan memasukkan nama file –ins.txt lalu di enter



6. Muncul *output* sebagai berikut: untuk mengetahui tingkat efisiensi teknis dengan CRS

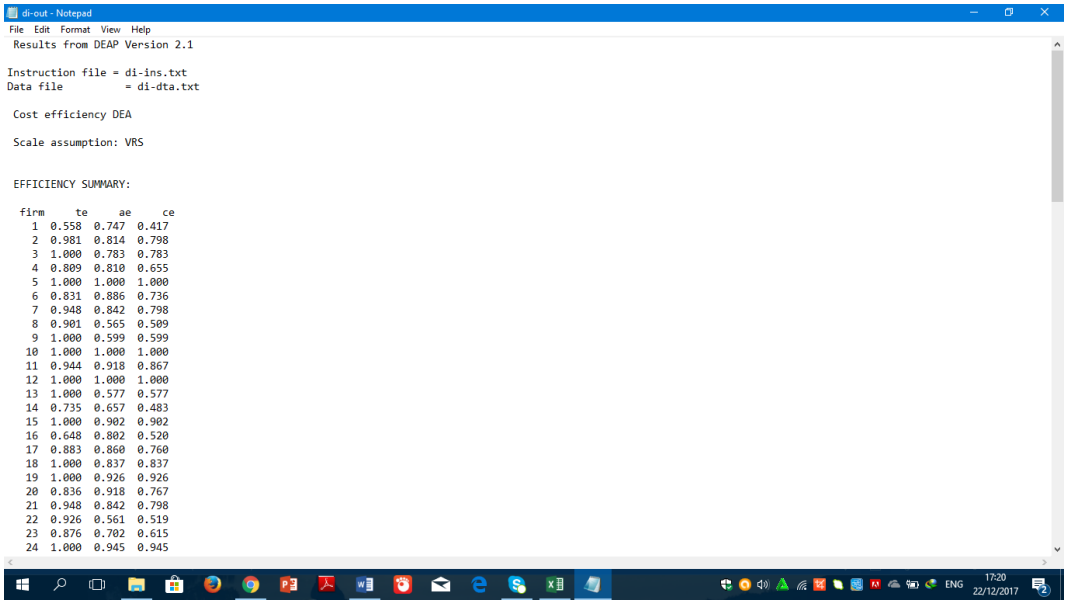


7. Jika ingin mengetahui *output* dengan menggunakan VRS maka gunakan cara yang sama dan pada file-ins diganti menjadi VRS lalu lanjutkan hal yang sama.



```
angs-out - Notepad
File  Edit  Format  View  Help
Results from DEAP Version 2.1

Instruction file = angs-ins.txt
Data file        = angs-dta.txt

 Input orientated DEA

 Scale assumption: VRS

 Slacks calculated using multi-stage method


 EFFICIENCY SUMMARY:

  firm  crste  vrste  scale

    1  0.551  0.558  0.987 drs
    2  0.968  0.981  0.987 irs
    3  1.000  1.000  1.000  -
    4  0.758  0.809  0.937 irs
    5  1.000  1.000  1.000  -
    6  0.781  0.831  0.940 irs
    7  0.946  0.948  0.998 irs
    8  0.894  0.901  0.992 drs
    9  1.000  1.000  1.000  -
   10  1.000  1.000  1.000  -
   11  0.929  0.944  0.983 irs
   12  1.000  1.000  1.000  -
   13  1.000  1.000  1.000  -
   14  0.652  0.735  0.887 drs
   15  1.000  1.000  1.000  -
   16  0.617  0.648  0.952 irs
   17  0.839  0.883  0.950 irs
   18  1.000  1.000  1.000  -
   19  1.000  1.000  1.000  -
   20  0.798  0.836  0.955 irs
   21  0.946  0.948  0.998 irs
```

8. Untuk mengetahui tingkat efisiensi teknis, alokatif dan biaya dilakukan sebagai berikut, yaitu dengan memasukkan harga masing- masing *input* di lembar kerja excel. Lakukan hal yang sama dari awal:

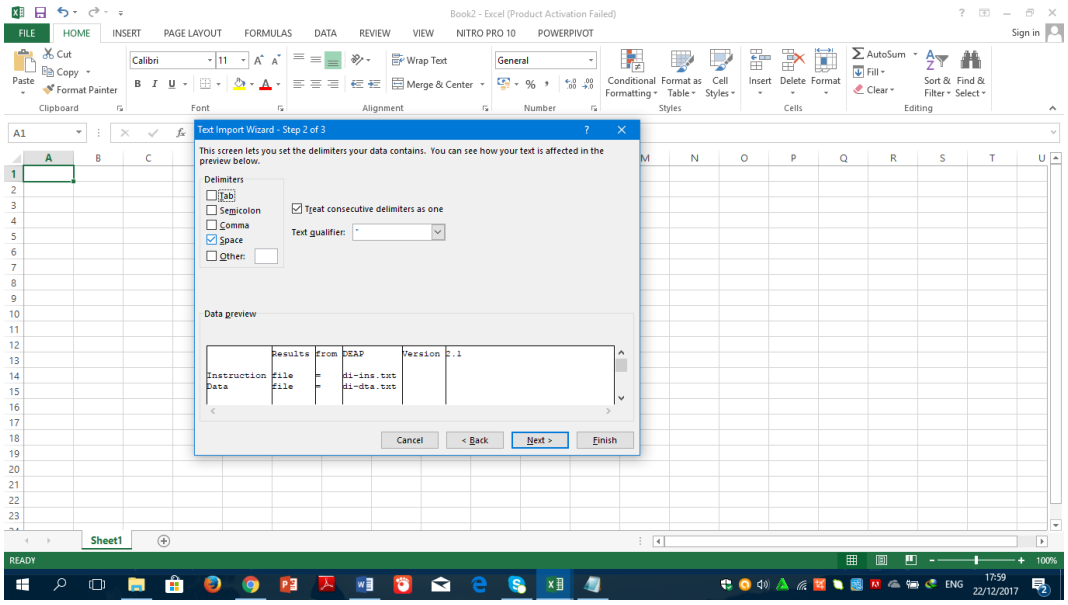


```
di-out - Notepad
File  Edit  Format  View  Help
 Results from DEAP Version 2.1

Instruction file = di-ins.txt
Data file        = di-dta.txt

 Cost efficiency DEA

 Scale assumption: VRS


 EFFICIENCY SUMMARY:

  firm     te     ae     ce
    1  0.558  0.747  0.417
    2  0.981  0.814  0.798
    3  1.000  0.783  0.783
    4  0.809  0.810  0.655
    5  1.000  1.000  1.000
    6  0.831  0.886  0.736
    7  0.948  0.842  0.798
    8  0.901  0.565  0.509
    9  1.000  0.599  0.599
   10  1.000  1.000  1.000
   11  0.944  0.918  0.867
   12  1.000  1.000  1.000
   13  1.000  0.577  0.577
   14  0.735  0.657  0.483
   15  1.000  0.902  0.902
   16  0.648  0.802  0.520
   17  0.883  0.860  0.760
   18  1.000  0.837  0.837
   19  1.000  0.926  0.926
   20  0.836  0.918  0.767
   21  0.948  0.842  0.798
   22  0.926  0.561  0.519
   23  0.876  0.702  0.615
   24  1.000  0.945  0.945
```

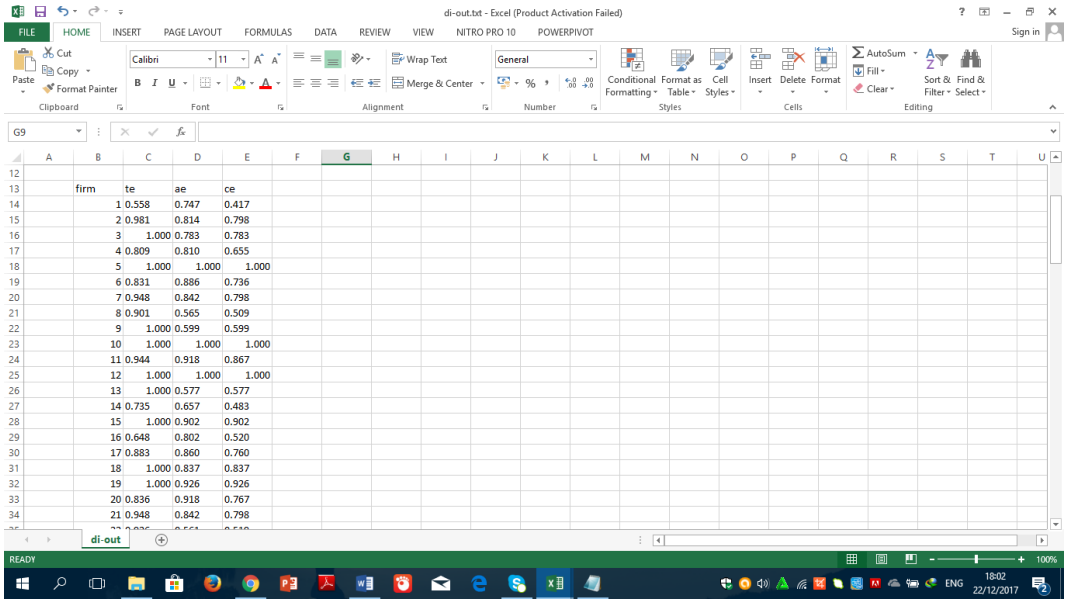
- Save as excel dengan format tab delimited.txt dan ganti file (saran 3 huruf, dan terdiri dari huruf kecil) cth: ang-dta.txt.
- Buka folder, lalu edit-replace “,” dengan “.” agar sesuai dengan standar internasional, lalu simpan.
- Buka folder ins.txt, copy dan rename sesuai dengan nama dta.txt.

- Buka file dan edit sesuai dengan kebutuhan: ganti nama dta.txt dan out.txt, ganti number of firms sesuai dengan jumlah responden, ganti number of *input* sesuai jumlah *input* yang digunakan, ganti dengan VRS dan Cost-DEA.
- Buka aplikasi DEA-P lalu *input* nama file-ins.txt. lalu enter.

9. Setelah muncul out, maka buka file tersebut di lembar kerja excel. File-open-pilih file out tersebut- next- pilih space- next- finish.



10. File *output* terbuka di Excel dan di lakukan tabulasi



Lampiran 4. Hasil Analisis Menggunakan Aplikasi DEAP 2.1

```
Results from DEAP Version 2.1
Instruction file = angs-ins.txt
Data file          = angs-dta.txt
 Input orientated DEA
 Scale assumption: VRS
 Slacks calculated using multi-stage method

EFFICIENCY SUMMARY:
  firm  crste  vrste  scale
    1  0.551  0.558  0.987 drs
    2  0.968  0.981  0.987 irs
    3  1.000  1.000  1.000  -
    4  0.758  0.809  0.937 irs
    5  1.000  1.000  1.000  -
    6  0.781  0.831  0.940 irs
    7  0.946  0.948  0.998 irs
    8  0.894  0.901  0.992 drs
    9  1.000  1.000  1.000  -
   10  1.000  1.000  1.000  -
   11  0.929  0.944  0.983 irs
   12  1.000  1.000  1.000  -
   13  1.000  1.000  1.000  -
   14  0.652  0.735  0.887 drs
   15  1.000  1.000  1.000  -
   16  0.617  0.648  0.952 irs
   17  0.839  0.883  0.950 irs
   18  1.000  1.000  1.000  -
   19  1.000  1.000  1.000  -
   20  0.798  0.836  0.955 irs
   21  0.946  0.948  0.998 irs
   22  0.919  0.926  0.992 drs
   23  0.874  0.876  0.998 drs
   24  1.000  1.000  1.000  -
   25  0.565  0.656  0.861 drs
   26  0.974  0.981  0.993 irs
   27  1.000  1.000  1.000  -
   28  0.775  0.809  0.958 irs
   29  0.790  0.836  0.945 irs
```

30	0.946	0.948	0.998	irs
31	0.890	0.894	0.996	drs
32	0.654	0.732	0.894	irs
33	0.953	1.000	0.953	irs
34	0.918	0.944	0.972	irs
35	1.000	1.000	1.000	-
36	0.651	0.673	0.967	drs
37	0.619	0.630	0.982	drs
38	1.000	1.000	1.000	-
39	0.550	0.584	0.941	irs
40	0.839	0.883	0.950	irs
41	1.000	1.000	1.000	-
42	1.000	1.000	1.000	-
43	1.000	1.000	1.000	-
44	0.486	0.532	0.914	drs
45	0.780	0.914	0.853	drs
46	0.820	0.840	0.976	irs
47	0.946	0.948	0.998	irs
mean	0.864	0.886	0.973	

Note: crste = technical efficiency from CRS DEA
vrste = technical efficiency from VRS DEA
scale = scale efficiency = crste/vrste

Note also that all subsequent tables refer to VRS results

FIRM BY FIRM RESULTS:

Results for firm: 1
Technical efficiency = 0.558
Scale efficiency = 0.987 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	69.000	0.000	0.000	69.000
input	1	35.000	-15.466	-4.947	14.586
input	2	1250.000	-552.364	0.000	697.636
input	3	2.500	-1.105	0.000	1.395
input	4	500.000	-220.946	0.000	279.054

```
 input      5    100.000       -44.189       -16.623        39.188
 LISTING OF PEERS:
  peer   lambda weight
   10      0.240
   18      0.466
   43      0.283
   12      0.010
Results for firm:     2
Technical efficiency = 0.981
Scale efficiency     = 0.987  (irs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                   value      movement      movement         value
 output     1     62.000         0.000         0.000        62.000
 input      1     16.000        -0.310         0.000        15.690
 input      2    800.000       -15.477         0.000       784.523
 input      3      2.000        -0.039         0.000         1.961
 input      4    300.000        -5.804       -93.584       200.612
 input      5     32.000        -0.619         0.000        31.381
 LISTING OF PEERS:
  peer   lambda weight
   10      0.218
   41      0.001
   27      0.727
    5      0.014
   43      0.039
Results for firm:     3
Technical efficiency = 1.000
Scale efficiency     = 1.000  (crs)
 PROJECTION SUMMARY:
     variable  original        radial         slack     projected
                  value      movement      movement         value
 output     1   65.000         0.000         0.000        65.000
 input      1   16.000         0.000         0.000        16.000
 input      2  900.000         0.000         0.000       900.000
 input      3    2.000         0.000         0.000         2.000
 input      4  400.000         0.000      -200.000       200.000
 input      5   32.000         0.000         0.000        32.000
 LISTING OF PEERS:
```

```
  peer   lambda weight
   27      1.000
Results for firm:     4
Technical efficiency = 0.809
Scale efficiency     = 0.937  (irs)
 PROJECTION SUMMARY:
     variable original        radial         slack     projected
                 value      movement      movement         value
 output    1   63.400         0.000         0.000        63.400
 input     1   15.000        -2.869         0.000        12.131
 input     2  900.000      -172.134      -110.467       617.399
 input     3    2.000        -0.383         0.000         1.617
 input     4  350.000       -66.941         0.000       283.059
 input     5   54.000       -10.328        -2.614        41.058
 LISTING OF PEERS:
  peer   lambda weight
   18      0.455
    5      0.106
   19      0.276
   43      0.163
Results for firm:     5
Technical efficiency = 1.000
Scale efficiency     = 1.000  (crs)
 PROJECTION SUMMARY:
     variable original    radial         slack           projected
                 value      movement      movement          value
 output     1     49.000         0.000         0.000        49.000
 input      1      8.000         0.000         0.000         8.000
 input      2    300.000         0.000         0.000       300.000
 input      3      1.000         0.000         0.000         1.000
 input      4    500.000         0.000         0.000       500.000
 input      5     40.000         0.000         0.000        40.000
 LISTING OF PEERS:
  peer   lambda weight
    5      1.000
Results for firm:     6
Technical efficiency = 0.831
Scale efficiency     = 0.940  (irs)
 PROJECTION SUMMARY:
```

Variable		original value	radial movement	slack movement	projected value
output	1	60.200	0.000	0.000	60.200
input	1	16.000	-2.704	0.000	13.296
input	2	700.000	-118.308	-18.140	563.551
input	3	4.000	-0.676	0.000	3.324
input	4	400.000	-67.605	0.000	332.395
input	5	42.000	-7.098	0.000	34.902

LISTING OF PEERS:

peer	lambda weight
27	0.133
5	0.080
19	0.141
24	0.458
43	0.187

Results for firm: 7

Technical efficiency = 0.948

Scale efficiency = 0.998 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.000	0.000	0.000	60.000
input	1	16.000	-0.829	0.000	15.171
input	2	700.000	-36.275	0.000	663.725
input	3	2.000	-0.104	0.000	1.896
input	4	200.000	-10.364	0.000	189.636
input	5	36.000	-1.866	0.000	34.134

LISTING OF PEERS:

peer	lambda weight
12	0.094
10	0.067
27	0.251
18	0.482
43	0.005
19	0.101

Results for firm: 8

Technical efficiency = 0.901

Scale efficiency = 0.992 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.000	0.000	0.000	62.000
input	1	16.000	-1.582	0.000	14.418
input	2	1000.000	-98.863	-88.187	812.950
input	3	6.000	-0.593	0.000	5.407
input	4	160.000	-15.818	0.000	144.182
input	5	80.000	-7.909	-11.592	60.499

LISTING OF PEERS:

peer	lambda weight
43	0.050
19	0.167
13	0.426
9	0.358

Results for firm: 9

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.400	0.000	0.000	60.400
input	1	16.000	0.000	0.000	16.000
input	2	1000.000	0.000	0.000	1000.000
input	3	4.000	0.000	0.000	4.000
input	4	100.000	0.000	0.000	100.000
input	5	52.000	0.000	0.000	52.000

LISTING OF PEERS:

peer	lambda weight
9	1.000

Results for firm: 10

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	46.000	0.000	0.000	46.000
input	1	16.000	0.000	0.000	16.000
input	2	400.000	0.000	0.000	400.000
input	3	2.000	0.000	0.000	2.000

```
 input      4    120.000         0.000         0.000       120.000
 input      5     24.000         0.000         0.000        24.000
 LISTING OF PEERS:
  peer   lambda weight
   10      1.000
Results for firm:    11
Technical efficiency = 0.944
Scale efficiency     = 0.983  (irs)
 PROJECTION SUMMARY:
  variable     original        radial         slack     projected
                  value      movement      movement         value
 output     1     52.000         0.000         0.000        52.000
 input      1     16.000        -0.890         0.000        15.110
 input      2    500.000       -27.823         0.000       472.177
 input      3      2.000        -0.111         0.000         1.889
 input      4    200.000       -11.129        -4.879       183.992
 input      5     30.000        -1.669         0.000        28.331
 LISTING OF PEERS:
  peer   lambda weight
   10      0.797
    5      0.057
   27      0.057
   43      0.087
   41      0.002
Results for firm:    12
Technical efficiency = 1.000
Scale efficiency     = 1.000  (crs)
 PROJECTION SUMMARY:
  variable     original        radial         slack     projected
                  value      movement      movement         value
 output     1    54.000         0.000         0.000        54.000
 input      1    16.000         0.000         0.000        16.000
 input      2   300.000         0.000         0.000       300.000
 input      3     5.000         0.000         0.000         5.000
 input      4   150.000         0.000         0.000       150.000
 input      5     30.000         0.000         0.000        30.000
 LISTING OF PEERS:
  peer   lambda weight
   12      1.000
```

Results for firm: 13

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	64.000	0.000	0.000	64.000
input	1	16.000	0.000	0.000	16.000
input	2	800.000	0.000	0.000	800.000
input	3	8.000	0.000	0.000	8.000
input	4	120.000	0.000	0.000	120.000
input	5	76.000	0.000	0.000	76.000

LISTING OF PEERS:

peer	lambda weight
13	1.000

Results for firm: 14

Technical efficiency = 0.735

Scale efficiency = 0.887 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.000	0.000	0.000	60.000
input	1	32.000	-8.469	-7.531	16.000
input	2	800.000	-211.718	0.000	588.282
input	3	4.000	-1.059	0.000	2.941
input	4	240.000	-63.516	0.000	176.484
input	5	76.000	-20.113	-17.601	38.286

LISTING OF PEERS:

peer	lambda weight
13	0.103
9	0.000
12	0.305
18	0.592

Results for firm: 15

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value

output	1	62.200	0.000	0.000	62.200
input	1	16.000	0.000	0.000	16.000
input	2	600.000	0.000	0.000	600.000
input	3	2.000	0.000	0.000	2.000
input	4	400.000	0.000	0.000	400.000
input	5	32.000	0.000	0.000	32.000

LISTING OF PEERS:

peer	lambda weight
15	1.000

Results for firm: 16

Technical efficiency = 0.648

Scale efficiency = 0.952 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	47.500	0.000	0.000	47.500
input	1	23.300	-8.210	0.000	15.090
input	2	833.300	-293.624	-107.475	432.201
input	3	3.300	-1.163	0.000	2.137
input	4	200.000	-70.473	0.000	129.527
input	5	53.300	-18.781	-7.280	27.239

LISTING OF PEERS:

peer	lambda weight
18	0.042
10	0.812
9	0.033
19	0.114

Results for firm: 17

Technical efficiency = 0.883

Scale efficiency = 0.950 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.200	0.000	0.000	62.200
input	1	16.000	-1.874	0.000	14.126
input	2	750.000	-87.838	0.000	662.162
input	3	1.500	-0.176	0.000	1.324
input	4	300.000	-35.135	0.000	264.865
input	5	42.000	-4.919	0.000	37.081

LISTING OF PEERS:

peer	lambda weight
10	0.060
5	0.146
18	0.525
27	0.153
43	0.077
19	0.041

Results for firm: 18

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.400	0.000	0.000	62.400
input	1	16.000	0.000	0.000	16.000
input	2	700.000	0.000	0.000	700.000
input	3	1.000	0.000	0.000	1.000
input	4	200.000	0.000	0.000	200.000
input	5	36.000	0.000	0.000	36.000

LISTING OF PEERS:

peer	lambda weight
18	1.000

Results for firm: 19

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	49.000	0.000	0.000	49.000
input	1	8.000	0.000	0.000	8.000
input	2	400.000	0.000	0.000	400.000
input	3	3.000	0.000	0.000	3.000
input	4	180.000	0.000	0.000	180.000
input	5	40.000	0.000	0.000	40.000

LISTING OF PEERS:

peer	lambda weight
19	1.000

Results for firm: 20

Technical efficiency = 0.836
Scale efficiency = 0.955 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.200	0.000	0.000	60.200
input	1	16.000	-2.627	0.000	13.373
input	2	600.000	-98.529	0.000	501.471
input	3	6.000	-0.985	-1.276	3.739
input	4	400.000	-65.686	0.000	334.314
input	5	42.000	-6.897	0.000	35.103

LISTING OF PEERS:

peer	lambda weight
42	0.092
12	0.115
43	0.218
19	0.100
24	0.475

Results for firm: 21
Technical efficiency = 0.948
Scale efficiency = 0.998 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.000	0.000	0.000	60.000
input	1	16.000	-0.829	0.000	15.171
input	2	700.000	-36.275	0.000	663.725
input	3	2.000	-0.104	0.000	1.896
input	4	200.000	-10.364	0.000	189.636
input	5	36.000	-1.866	0.000	34.134

LISTING OF PEERS:

peer	lambda weight
12	0.094
10	0.067
27	0.251
18	0.482
43	0.005
19	0.101

Results for firm: 22

Technical efficiency = 0.926
Scale efficiency = 0.992 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	64.000	0.000	0.000	64.000
input	1	16.000	-1.187	0.000	14.813
input	2	1000.000	-74.188	-164.979	760.834
input	3	8.000	-0.594	-0.319	7.088
input	4	160.000	-11.870	0.000	148.130
input	5	80.000	-5.935	-3.200	70.865

LISTING OF PEERS:

peer	lambda weight
43	0.049
13	0.833
19	0.118

Results for firm: 23
Technical efficiency = 0.876
Scale efficiency = 0.998 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.400	0.000	0.000	62.400
input	1	16.000	-1.992	0.000	14.008
input	2	1000.000	-124.480	-20.381	855.140
input	3	4.000	-0.498	-0.367	3.135
input	4	200.000	-24.896	0.000	175.104
input	5	52.000	-6.473	0.000	45.527

LISTING OF PEERS:

peer	lambda weight
9	0.493
27	0.228
43	0.081
19	0.198

Results for firm: 24
Technical efficiency = 1.000
Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable	original	radial	slack	projected

		value	movement	movement	value
output	1	48.000	0.000	0.000	48.000
input	1	16.000	0.000	0.000	16.000
input	2	400.000	0.000	0.000	400.000
input	3	5.000	0.000	0.000	5.000
input	4	300.000	0.000	0.000	300.000
input	5	24.000	0.000	0.000	24.000

LISTING OF PEERS:

peer	lambda weight
24	1.000

Results for firm: 25

Technical efficiency = 0.656

Scale efficiency = 0.861 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	69.000	0.000	0.000	69.000
input	1	35.000	-12.040	-7.887	15.072
input	2	1500.000	-516.016	-178.884	805.099
input	3	2.500	-0.860	0.000	1.640
input	4	375.000	-129.004	0.000	245.996
input	5	100.000	-34.401	-22.555	43.044

LISTING OF PEERS:

peer	lambda weight
18	0.626
43	0.186
9	0.189

Results for firm: 26

Technical efficiency = 0.981

Scale efficiency = 0.993 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.000	0.000	0.000	62.000
input	1	16.000	-0.309	0.000	15.691
input	2	800.000	-15.433	0.000	784.567
input	3	4.000	-0.077	-1.926	1.997
input	4	200.000	-3.858	0.000	196.142
input	5	32.000	-0.617	0.000	31.383

LISTING OF PEERS:

peer	lambda weight
19	0.013
12	0.003
27	0.724
43	0.040
10	0.219

Results for firm: 27

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	65.000	0.000	0.000	65.000
input	1	16.000	0.000	0.000	16.000
input	2	900.000	0.000	0.000	900.000
input	3	2.000	0.000	0.000	2.000
input	4	200.000	0.000	0.000	200.000
input	5	32.000	0.000	0.000	32.000

LISTING OF PEERS:

peer	lambda weight
27	1.000

Results for firm: 28

Technical efficiency = 0.809

Scale efficiency = 0.958 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	63.400	0.000	0.000	63.400
input	1	15.000	-2.869	0.000	12.131
input	2	800.000	-153.008	-29.593	617.399
input	3	2.000	-0.383	0.000	1.617
input	4	350.000	-66.941	0.000	283.059
input	5	54.000	-10.328	-2.614	41.058

LISTING OF PEERS:

peer	lambda weight
19	0.276
18	0.455
43	0.163

```
    5      0.106
Results for firm:    29
Technical efficiency = 0.836
Scale efficiency     = 0.945  (irs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                  value      movement      movement         value
 output     1     60.200         0.000         0.000        60.200
 input      1     16.000        -2.619         0.000        13.381
 input      2    700.000      -114.563         0.000       585.437
 input      3      2.000        -0.327         0.000         1.673
 input      4    400.000       -65.465       -38.748       295.787
 input      5     42.000        -6.874         0.000        35.126
 LISTING OF PEERS:
  peer   lambda weight
   10      0.384
   27      0.220
    5      0.220
   43      0.172
   41      0.004
Results for firm:    30
Technical efficiency = 0.948
Scale efficiency     = 0.998  (irs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                  value      movement      movement         value
 output     1     60.000         0.000         0.000        60.000
 input      1     16.000        -0.829         0.000        15.171
 input      2    700.000       -36.275         0.000       663.725
 input      3      2.000        -0.104         0.000         1.896
 input      4    200.000       -10.364         0.000       189.636
 input      5     36.000        -1.866         0.000        34.134
 LISTING OF PEERS:
  peer   lambda weight
   12      0.094
   10      0.067
   27      0.251
   18      0.482
   43      0.005
```

```
   19      0.101
Results for firm:    31
Technical efficiency = 0.894
Scale efficiency     = 0.996  (drs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                   value      movement      movement         value
 output     1     62.000         0.000         0.000        62.000
 input      1     16.000        -1.700         0.000        14.300
 input      2   1000.000      -106.233      -167.989       725.778
 input      3     10.000        -1.062        -2.091         6.847
 input      4    160.000       -16.997         0.000       143.003
 input      5     80.000        -8.499        -3.040        68.461
 LISTING OF PEERS:
  peer   lambda weight
   19      0.196
   13      0.778
   43      0.026
Results for firm:    32
Technical efficiency = 0.732
Scale efficiency     = 0.894  (irs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                   value      movement      movement         value
 output     1    60.400         0.000         0.000        60.400
 input      1    16.000        -4.286         0.000        11.714
 input      2  1000.000      -267.874      -156.596       575.530
 input      3     4.000        -1.071         0.000         2.929
 input      4   400.000      -107.149         0.000       292.851
 input      5    52.000       -13.929         0.000        38.071
 LISTING OF PEERS:
  peer   lambda weight
   19      0.376
   27      0.162
    5      0.049
   24      0.236
   43      0.177
Results for firm:    33
Technical efficiency = 1.000
```

Scale efficiency = 0.953 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	46.000	0.000	0.000	46.000
input	1	16.000	0.000	0.000	16.000
input	2	500.000	0.000	-100.000	400.000
input	3	4.000	0.000	-2.000	2.000
input	4	300.000	0.000	-180.000	120.000
input	5	24.000	0.000	0.000	24.000

LISTING OF PEERS:

peer	lambda weight
10	1.000

Results for firm: 34

Technical efficiency = 0.944

Scale efficiency = 0.972 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	52.000	0.000	0.000	52.000
input	1	16.000	-0.890	0.000	15.110
input	2	500.000	-27.823	0.000	472.177
input	3	2.000	-0.111	0.000	1.889
input	4	350.000	-19.476	-146.532	183.992
input	5	30.000	-1.669	0.000	28.331

LISTING OF PEERS:

peer	lambda weight
10	0.797
5	0.057
41	0.002
27	0.057
43	0.087

Results for firm: 35

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	54.000	0.000	0.000	54.000

input	1	16.000	0.000	0.000	16.000
input	2	300.000	0.000	0.000	300.000
input	3	3.000	0.000	0.000	3.000
input	4	400.000	0.000	0.000	400.000
input	5	30.000	0.000	0.000	30.000

LISTING OF PEERS:

peer	lambda weight
35	1.000

Results for firm: 36

Technical efficiency = 0.673

Scale efficiency = 0.967 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	64.000	0.000	0.000	64.000
input	1	16.000	-5.230	0.000	10.770
input	2	800.000	-261.518	0.000	538.482
input	3	6.000	-1.961	-0.877	3.162
input	4	400.000	-130.759	0.000	269.241
input	5	76.000	-24.844	-7.579	43.577

LISTING OF PEERS:

peer	lambda weight
13	0.030
43	0.264
19	0.489
12	0.217

Results for firm: 37

Technical efficiency = 0.630

Scale efficiency = 0.982 (drs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.000	0.000	0.000	60.000
input	1	32.000	-11.840	-5.354	14.805
input	2	800.000	-296.012	0.000	503.988
input	3	4.000	-1.480	0.000	2.520
input	4	360.000	-133.205	0.000	226.795
input	5	76.000	-28.121	-14.805	33.074

LISTING OF PEERS:

peer	lambda weight
10	0.545
12	0.221
43	0.226
5	0.008

Results for firm: 38

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.200	0.000	0.000	62.200
input	1	16.000	0.000	0.000	16.000
input	2	600.000	0.000	0.000	600.000
input	3	4.000	0.000	-2.000	2.000
input	4	400.000	0.000	0.000	400.000
input	5	32.000	0.000	0.000	32.000

LISTING OF PEERS:

peer	lambda weight
15	1.000

Results for firm: 39

Technical efficiency = 0.584

Scale efficiency = 0.941 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	47.500	0.000	0.604	48.104
input	1	23.300	-9.692	0.000	13.608
input	2	833.300	-346.607	-36.399	450.294
input	3	6.700	-2.787	-1.447	2.467
input	4	233.300	-97.040	0.000	136.260
input	5	53.300	-22.170	0.000	31.130

LISTING OF PEERS:

peer	lambda weight
10	0.617
9	0.084
19	0.299

Results for firm: 40

Technical efficiency = 0.883

Scale efficiency = 0.950 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.200	0.000	0.000	62.200
input	1	16.000	-1.874	0.000	14.126
input	2	750.000	-87.838	0.000	662.162
input	3	1.500	-0.176	0.000	1.324
input	4	300.000	-35.135	0.000	264.865
input	5	42.000	-4.919	0.000	37.081

LISTING OF PEERS:

peer	lambda weight
10	0.060
5	0.146
18	0.525
27	0.153
43	0.077
19	0.041

Results for firm: 41

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	62.400	0.000	0.000	62.400
input	1	16.000	0.000	0.000	16.000
input	2	600.000	0.000	0.000	600.000
input	3	1.000	0.000	0.000	1.000
input	4	300.000	0.000	0.000	300.000
input	5	36.000	0.000	0.000	36.000

LISTING OF PEERS:

peer	lambda weight
41	1.000

Results for firm: 42

Technical efficiency = 1.000

Scale efficiency = 1.000 (crs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value

```
 output     1     49.000         0.000         0.000        49.000
 input      1      8.000         0.000         0.000         8.000
 input      2    300.000         0.000         0.000       300.000
 input      3      2.000         0.000         0.000         2.000
 input      4    400.000         0.000         0.000       400.000
 input      5     40.000         0.000         0.000        40.000
 LISTING OF PEERS:
  peer   lambda weight
   42      1.000
Results for firm:    43
Technical efficiency = 1.000
Scale efficiency     = 1.000  (crs)
 PROJECTION SUMMARY:
  variable     original        radial         slack     projected
                  value      movement      movement         value
 output     1    100.000         0.000         0.000       100.000
 input      1     11.000         0.000         0.000        11.000
 input      2    961.500         0.000         0.000       961.500
 input      3      1.400         0.000         0.000         1.400
 input      4    549.500         0.000         0.000       549.500
 input      5     57.700         0.000         0.000        57.700
 LISTING OF PEERS:
  peer   lambda weight
   43      1.000
Results for firm:    44
Technical efficiency = 0.532
Scale efficiency     = 0.914  (drs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                  value      movement      movement         value
 output     1     85.700         0.000         0.000        85.700
 input      1     28.600       -13.381        -2.259        12.960
 input      2   2500.000     -1169.702      -421.650       908.649
 input      3      7.100        -3.322         0.000         3.778
 input      4    714.300      -334.207         0.000       380.093
 input      5    128.600       -60.169        -4.812        63.619
 LISTING OF PEERS:
  peer   lambda weight
     9      0.052
```

```
   13      0.340
   43      0.608
Results for firm:    45
Technical efficiency = 0.914
Scale efficiency     = 0.853  (drs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                   value      movement      movement         value
 output     1     69.000         0.000         0.000        69.000
 input      1     35.000        -2.997       -16.987        15.015
 input      2   1250.000      -107.045      -270.743       872.212
 input      3      2.500        -0.214         0.000         2.286
 input      4    250.000       -21.409         0.000       228.591
 input      5    100.000        -8.564       -44.725        46.712
 LISTING OF PEERS:
  peer   lambda weight
    9      0.402
   18      0.401
   43      0.197
Results for firm:    46
Technical efficiency = 0.840
Scale efficiency     = 0.976  (irs)
 PROJECTION SUMMARY:
  variable      original        radial         slack     projected
                   value      movement      movement         value
 output     1     63.400         0.000         0.000        63.400
 input      1     15.000        -2.404         0.000        12.596
 input      2    900.000      -144.268      -120.332       635.400
 input      3      2.000        -0.321         0.000         1.679
 input      4    300.000       -48.089         0.000       251.911
 input      5     54.000        -8.656        -4.843        40.501
 LISTING OF PEERS:
  peer   lambda weight
    5      0.024
   19      0.311
   43      0.146
   18      0.520
Results for firm:    47
Technical efficiency = 0.948
```

Scale efficiency = 0.998 (irs)

PROJECTION SUMMARY:

variable		original value	radial movement	slack movement	projected value
output	1	60.000	0.000	0.000	60.000
input	1	16.000	-0.829	0.000	15.171
input	2	700.000	-36.275	0.000	663.725
input	3	2.000	-0.104	0.000	1.896
input	4	200.000	-10.364	0.000	189.636
input	5	36.000	-1.866	0.000	34.134

LISTING OF PEERS:

peer	lambda weight
12	0.094
10	0.067
27	0.251
18	0.482
43	0.005
19	0.101

Results from DEAP Version 2.1

Instruction file = di-ins.txt
Data file = di-dta.txt
Cost efficiency DEA
Scale assumption: VRS

EFFICIENCY SUMMARY:

firm	te	ae	ce
1	0.558	0.747	0.417
2	0.981	0.814	0.798
3	1.000	0.783	0.783
4	0.809	0.810	0.655
5	1.000	1.000	1.000
6	0.831	0.886	0.736
7	0.948	0.842	0.798
8	0.901	0.565	0.509
9	1.000	0.599	0.599
10	1.000	1.000	1.000
11	0.944	0.918	0.867
12	1.000	1.000	1.000
13	1.000	0.577	0.577
14	0.735	0.657	0.483
15	1.000	0.902	0.902
16	0.648	0.802	0.520
17	0.883	0.860	0.760
18	1.000	0.837	0.837

19	1.000	0.926	0.926
20	0.836	0.918	0.767
21	0.948	0.842	0.798
22	0.926	0.561	0.519
23	0.876	0.702	0.615
24	1.000	0.945	0.945
25	0.656	0.596	0.391
26	0.981	0.805	0.790
27	1.000	0.794	0.794
28	0.809	0.851	0.688
29	0.836	0.896	0.749
30	0.948	0.842	0.798
31	0.894	0.557	0.498
32	0.732	0.804	0.589
33	1.000	0.882	0.882
34	0.944	0.905	0.855
35	1.000	0.999	0.999
36	0.673	0.855	0.576
37	0.630	0.763	0.481
38	1.000	0.884	0.884
39	0.584	0.868	0.507
40	0.883	0.860	0.760
41	1.000	0.886	0.886
42	1.000	0.998	0.998
43	1.000	1.000	1.000
44	0.532	0.663	0.353
45	0.914	0.460	0.421
46	0.840	0.783	0.657
47	0.948	0.842	0.798
mean	0.886	0.815	0.727

Note: te = technical efficiency
ae = allocative efficiency = ce/te
ce = cost efficiency

SUMMARY OF COST MINIMISING INPUT QUANTITIES:

firm	input: 1	2	3	4	5
1	14.370	515.707	3.826	280.272	39.033
2	15.130	415.043	4.374	219.478	34.817
3	14.804	458.185	4.139	245.533	36.624
4	14.978	435.176	4.264	231.637	35.660
5	8.000	300.000	1.000	500.000	40.000
6	15.326	389.159	4.515	203.846	33.733
7	15.348	386.283	4.530	202.109	33.613
8	15.13	415.043	4.374	219.478	34.817
9	15.304	392.035	4.499	205.583	33.854
10	8.000	300.000	1.000	500.000	40.000
11	12.80	300.000	3.400	290.000	34.000
12	16.000	300.000	5.000	150.000	30.000
13	14.913	443.804	4.217	236.848	36.022
14	15.34	386.283	4.530	202.109	33.613
15	15.10	417.920	4.358	221.215	34.938
16	8.000	300.000	1.000	500.000	40.000
17	15.109	417.920	4.358	221.215	34.938

18	15.087	420.796	4.343	222.952	35.058
19	8.000	300.000	1.000	500.000	40.000
20	15.326	389.159	4.515	203.846	33.733
21	15.34	386.283	4.530	202.109	33.613
22	14.913	443.804	4.217	236.848	36.022
23	15.087	420.796	4.343	222.952	35.058
24	8.00	300.000	1.000	500.000	40.000
25	14.370	515.707	3.826	280.272	39.033
26	15.1	415.043	4.374	219.478	34.817
27	14.804	458.185	4.139	245.533	36.624
28	14.978	435.176	4.264	231.637	35.660
29	15.326	389.159	4.515	203.846	33.733
30	15.348	386.283	4.530	202.109	33.613
31	15.130	415.043	4.374	219.478	34.817
32	15.304	392.035	4.499	205.583	33.854
33	8.000	300.000	1.000	500.000	40.000
34	12.800	300.000	3.400	290.000	34.000
35	16.000	300.000	5.000	150.000	30.000
36	14.913	443.804	4.217	236.848	36.022
37	15.348	386.283	4.530	202.109	33.613
38	15.109	417.920	4.358	221.215	34.938
39	8.000	300.000	1.000	500.000	40.000
40	15.109	417.920	4.358	221.215	34.938
41	15.087	420.796	4.343	222.952	35.058
42	8.000	300.000	1.000	500.000	40.000
43	11.000	961.500	1.400	549.500	57.700
44	12.554	755.860	2.519	425.308	49.089
45	14.370	515.707	3.826	280.272	39.033
46	14.978	435.176	4.264	231.637	35.660
47	15.348	386.283	4.530	202.109	33.613