

Nilai Pemakaian

Klasifikasi ABC yang dilakukan berdasarkan kelasnya yaitu : Kelas A : 80%, kelas B : 15% dan kelas C : 5%. Kelas yang dipilih yaitu jenis barang yang nilai pemakaiannya termasuk dalam kelas A.

Tabel L1.1
Klasifikasi ABC

No	Kode Barang	Nama Barang	Jumlah	Harga Beli	Nilai Pemakaian	Nilai Pemakaian Kumulatif	%	Kelas
1	8994571004760	MA 21 - OPTIMA L&R PUPPY 18,14 KG	288	Rp216,000	Rp62,208,000	Rp62,208,000	15.26%	A
2	8994571004777	MA 21 - OPTIMA L&R ADULT 18,14 KG	301	Rp204,000	Rp61,404,000	Rp123,612,000	30.33%	A
3	19014006687	MA 07 - EUKA NATURAL L&R PUPPY 15.87KG	72	Rp387,875	Rp27,927,000	Rp151,539,000	37.18%	A
4	7896642900500	MA 13 - DOG FOOD CROC ORIGINAL 25 KG	116	Rp235,000	Rp27,260,000	Rp178,799,000	43.86%	A
5	19014113644	MA 07 - EUKA PUPPY SMALL BREED 15KG	54	Rp369,750	Rp19,966,500	Rp198,765,500	48.76%	A
6	19014113637	MA 07 - EUKA PUPPY SMALL BREED 7.5KG	87	Rp199,375	Rp17,345,625	Rp216,111,125	53.02%	A
7	19014006632	MA 07 - EUKA NATURAL L&R PUPPY 6.8 KG	79	Rp199,375	Rp15,750,625	Rp231,861,750	56.88%	A
8	19014140640	MA 07 - EUKA PUPPY LARGE BREED 15 KG	36	Rp369,750	Rp13,311,000	Rp245,172,750	60.15%	A
9	19014132645	MA 07 - EUKA ADULT LARGE BREED 15 KG	34	Rp340,750	Rp11,585,500	Rp256,758,250	62.99%	A
10	19014006588	MA 07 - EUKA NATURAL L&R PUPPY 1,81 KG	198	Rp58,000	Rp11,484,000	Rp268,242,250	65.81%	A
11	19014006700	MA 07 - EUKA NATURAL L&R LARGE BREED ADULT 15 .8KG	29	Rp387,875	Rp11,248,375	Rp279,490,625	68.57%	A
12	19014113620	MA 07 - EUKA PUPPY SMALL BREED 3KG	114	Rp94,250	Rp10,744,500	Rp290,235,125	71.20%	A
13	73893004004	MA 13 - DOG FOOD SUPREME ADULT 18 KG	52	Rp174,570	Rp9,077,640	Rp299,312,765	73.43%	A
14	7896642901439	MA 13 - CICLOS CROISSANCE PUP 15 KG	38	Rp230,000	Rp8,740,000	Rp308,052,765	75.57%	A
15	19014106202	MK 07 - IAMS KITTEN 9.07 KG	23	Rp304,500	Rp7,003,500	Rp315,056,265	77.29%	A
16	19014114641	MA 07 - EUKA ADULT MEDIUM BREED 15 KG	20	Rp340,750	Rp6,815,000	Rp321,871,265	78.96%	A
17	19014106080	MK 07 - IAMS KITTEN 3,63 KG	50	Rp134,125	Rp6,706,250	Rp328,577,515	79.61%	A
18	19014140633	MA 07 - EUKA PUPPY LARGE BREED 7.5 KG	32	Rp199,375	Rp6,380,000	Rp334,957,515	82.17%	A
19	19014006656	MA 07 - EUKA NATURAL L&R ADULT LARGE BREED 6.8 KG	15	Rp199,375	Rp2,990,625	Rp337,948,140	82.91%	B

Lanjutan Tabel L1.1

Klasifikasi ABC

No	Kode Barang	Nama Barang	Jumlah	Harga Beli	Nilai Pemakaian	Nilai Pemakaian Kumulatif	%	Kelas
20	19014006694	MA 07 - EUKA NATURAL L&R ADULT MEDIUM BREED15.87KG	9	Rp326,250	Rp2,936,250	Rp340,884,390	83.63%	B
21	19014006595	MA 07 - EUKA NATURAL L&R ADULT 1.81KG	46	Rp58,000	Rp2,668,000	Rp343,552,390	84.28%	B
22	19014006649	MA 07 - EUKA NATURAL L&R ADULT MEDIUM BREED 6.8KG	12	Rp199,375	Rp2,392,500	Rp345,944,890	84.87%	B
23	7896642901392	MA 13 - CICLOS CROISSANCE 8 - 7,5 KG	16	Rp146,000	Rp2,336,000	Rp348,280,890	85.44%	B
24	7896642901767	MA 13 - CROC ORIGINAL 10.1 KG	22	Rp103,000	Rp2,266,000	Rp350,546,890	86.00%	B
25	19014267644	MA 07 - EUKA ADULT SMALL BREED 15KG	7	Rp311,750	Rp2,182,250	Rp352,729,140	86.53%	B
26	9310022702006	MA 29 - PEDIGREE BEEF ADULT 1.15 KG	63	Rp31,654	Rp1,994,202	Rp354,723,342	87.02%	B
27	19014109203	MK 07 - IAMS OCEAN FISH ADULT 9.07 KG	6	Rp304,500	Rp1,827,000	Rp356,550,342	87.47%	B
29	19014114634	MA 07 - EUKA ADULT MEDIUM BREED 7.5 KG	10	Rp166,750	Rp1,667,500	Rp358,217,842	87.88%	B
28	19014267637	MA 07 - EUKA ADULT SMALL BREED 7.5 KG	10	Rp166,750	Rp1,667,500	Rp359,885,342	88.29%	B
30	7896642901750	MA 13 - CROC BABY 10.1KG	15	Rp110,000	Rp1,650,000	Rp361,535,342	88.70%	B
31	19014230624	MK 07 - IAMS ADULT HAIRBALL CONTROL 3KG	14	Rp112,375	Rp1,573,250	Rp363,108,592	89.08%	B
32	19014301645	MA 07 - EUKA PREMIUM PERFORMANCE LARGE BREED15KG	5	Rp311,750	Rp1,558,750	Rp364,667,342	89.46%	B
33	9310022735806	MA 29 - PEDIGREE PUPPY 400g KALENG	121	Rp12,495	Rp1,511,895	Rp366,179,237	89.83%	B
34	19014109081	MK 07 - IAMS ORIGINAL WITH OCEAN FISH&RICE 3.63 KG	13	Rp112,375	Rp1,460,875	Rp367,640,112	90.19%	B
35	9310022701207	MA 29 - PEDIGREE CHICKEN 1.15 KG	48	Rp29,364	Rp1,409,472	Rp369,049,584	90.54%	B
36	9310022530708	MA 29 - PEDIGREE PUPPY CHICKEN & EGG KERING 1.5 KG	40	Rp34,153	Rp1,366,120	Rp370,415,704	90.87%	B
37	19014267620	MA 07 - EUKA ADULT SMALL BREED 3 KG	13	Rp87,000	Rp1,131,000	Rp371,546,704	91.15%	B
38	8853301140812	MK 29 - WHISKAS KITTEN 1.5 KG WT	26	Rp41,772	Rp1,086,072	Rp372,632,776	91.42%	B
39	9310022726804	MA 29 - PEDIGREE BEEF ADULT CAN 700 GR	52	Rp19,992	Rp1,039,584	Rp373,672,360	91.67%	B
40	6914973309807	MA 29 - PEDIGREE CHICKEN&EGG PUPPY 500GR	71	Rp14,161	Rp1,005,431	Rp374,677,791	91.92%	B
41	19014008230	MK 07 - IAMS KITTEN 1-12 MONTH POLLO FRANGO 7.5 KG	4	Rp224,750	Rp899,000	Rp375,576,791	92.14%	B
42	19014132638	MA 07 - EUKA ADULT LARGE BREED 7.5 KG	5	Rp166,750	Rp833,750	Rp376,410,541	92.34%	B
43	9310022530302	MA 29 - PEDIGREE BEEF ADULT 2 KG	24	Rp33,630	Rp807,120	Rp377,217,661	92.54%	B

Lanjutan Tabel L1.1

Klasifikasi ABC

No	Kode Barang	Nama Barang	Jumlah	Harga Beli	Nilai Pemakaian	Nilai Pemakaian Kumulatif	%	Kelas
44	9310022705502	MA 29 - PEDIGREE CHICKEN LIVER ADULT KERING 2KG	24	Rp33,630	Rp807,120	Rp378,024,781	92.74%	B
45	9300603830341	MK 13 - FRISKIES 3.5 KG OCEAN FISH ADULT	10	Rp77,500	Rp775,000	Rp378,799,781	92.93%	B
46	19014103645	MA 07 - EUKA PREMIUM PERFORMANCE 15KG	2	Rp369,750	Rp739,500	Rp379,539,281	93.11%	B
47	9300603830167	MK 13 - FRISKIES 1.5 KG TUNA & SARDINE ADULT	20	Rp36,500	Rp730,000	Rp380,269,281	93.29%	B
48	7896642901477	MA 13 - CICLOS ADULT 16/15 KG	3	Rp230,000	Rp690,000	Rp380,959,281	93.46%	B
49	19014125623	MK 07 - IAMS ADULT 1+ LAMB&RICE 3KG	6	Rp112,375	Rp674,250	Rp381,633,531	93.63%	B
50	6914973309708	MA 29 - PEDIGREE BEEF KERING DUS 500GR	52	Rp12,912	Rp671,424	Rp382,304,955	93.79%	B
51	19014105083	MK 07 - IAMS ORIGINAL WITH CHICKEN 3.63KG	5	Rp134,125	Rp670,625	Rp382,975,580	93.96%	B
52	8994571005682	MA 13 - SUPREME 1.2 KG CHICKEN KALENG	30	Rp21,000	Rp630,000	Rp383,605,580	94.11%	B
53	9300603830136	MK 13 - FRISKIES 1.5 KG OCEAN FISH FLAVOUR ADULT	17	Rp36,500	Rp620,500	Rp384,226,080	94.26%	B
54	8853301530057	MA 29 - PEDIGREE CHICKEN CHUNK SAUCE PUPPY 150GR	131	Rp4,582	Rp600,242	Rp384,826,322	94.41%	B
55	19014149636	MA 07 - EUKA ADULT SENIOR 7.5 KG	3	Rp199,375	Rp598,125	Rp385,424,447	94.56%	B
56	8853301140652	MK 29 - WHISKAS MACKEREL KERING 1.5KG	15	Rp39,745	Rp596,175	Rp386,020,622	94.70%	B
57	9311765025506	MA 21 - COUNTRY BEEF 20Kg	3	Rp198,250	Rp594,750	Rp386,615,372	94.85%	B
58	8994571005491	MA 13 - SUPREME 380GR LAMB	77	Rp7,600	Rp585,200	Rp387,200,572	94.99%	B
59	9310022866203	MK 29 - WHISKAS TUNA 1.5KG	14	Rp41,225	Rp577,150	Rp387,777,722	95.13%	B
60	8853301140799	MK 29 - WHISKAS OCEAN FISH KITTEN DUS 500GR	34	Rp16,812	Rp571,608	Rp388,349,330	95.27%	C
61	9310022530500	MA 29 - PEDIGREE BEEF ADULT 20KG	2	Rp272,323	Rp544,646	Rp388,893,976	95.41%	C
62	19014006663	MA 07 - EUKA NATURAL L&R ADULT REDUCE FAT 6.8 KG	3	Rp181,250	Rp543,750	Rp389,437,726	95.54%	C
63	19014125081	MK 07 - IAMS ADULT ORIGINAL W/ LAMB & RICE 3.63KG	4	Rp134,125	Rp536,500	Rp389,974,226	95.67%	C
64	19014301638	MA 07 - EUKA PREMIUM PERFORM LARGE BREED 7.5 KG	3	Rp166,750	Rp500,250	Rp390,474,476	95.79%	C
65	9310022866104	MK 29 - WHISKAS OCEAN FISH 1.5 KG	12	Rp41,225	Rp494,700	Rp390,969,176	95.92%	C
66	19014149629	MA 07 - EUKANUBA ADULT SENIOR 3KG	5	Rp94,250	Rp471,250	Rp391,440,426	96.03%	C
67	8994571005637	MA 13 - SUPREME 700GR LAMB KALENG	39	Rp12,000	Rp468,000	Rp391,908,426	96.15%	C

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68	7896642901705	MA 13 - CICLOS ADULT 16 POTENCE 15 KG	2	Rp230,000	Rp460,000	Rp392,368,426	96.26%	C
69	7896642900234	MK 13 - CICLOS GATOS KITTEN 1 KG	13	Rp35,000	Rp455,000	Rp392,823,426	96.37%	C
71	19014105632	MK 07 - IAMS ADULT 1+ CHICKEN POLLO FRANGO 7,5KG	2	Rp224,750	Rp449,500	Rp393,272,926	96.48%	C
70	19014109630	MK 07 - IAMS ADULT OCEAN FISH 7.5 KG	2	Rp224,750	Rp449,500	Rp393,722,426	96.59%	C
72	9300603830112	MK 13 - FRISKIES 1.5 KG ADULT GOURMET	12	Rp36,500	Rp438,000	Rp394,160,426	96.70%	C
73	19014130627	MA 07 - EUKA PREMIUM PERFORMANCE 3 KG	7	Rp60,900	Rp426,300	Rp394,586,726	96.80%	C
74	9310022866500	MK 29 - WHISKAS TUNA FLAVOUR DUS 500 GR	25	Rp15,995	Rp399,875	Rp394,986,601	96.90%	C
75	8850124075659	MK 13 - FRISKIES KITTEN CHICKEN & FISH FLAVOUR 450	26	Rp14,600	Rp379,600	Rp395,366,201	96.99%	C
76	9300603830013	MK 13 - FRISKIES 500 GR GOURMET	24	Rp14,600	Rp350,400	Rp395,716,601	97.08%	C
77	9310022866401	MK 29 - WHISKAS OCEAN FISH DUS 500GR	21	Rp16,575	Rp348,075	Rp396,064,676	97.17%	C
78	8994571005484	MA 13 - SUPREME 380GR BEEF	45	Rp7,600	Rp342,000	Rp396,406,676	97.25%	C
79	8994571005620	MA 13 - SUPREME 700GR BEEF KALENG	28	Rp12,000	Rp336,000	Rp396,742,676	97.33%	C
80	9310022726903	MA 29 - PEDIGREE CHICKEN ADULT CAN 700GR	17	Rp19,686	Rp334,662	Rp397,077,338	97.41%	C
82	8853301400107	MK 29 - WHISKAS OCEAN FISH POCKET 3.5KG	4	Rp82,025	Rp328,100	Rp397,405,438	97.50%	C
81	8853301400084	MK 29 - WHISKAS TUNA FLAVOUR POCKET 3.5KG	4	Rp82,025	Rp328,100	Rp397,733,538	97.58%	C
83	8994571005644	MA 13 - SUPREME 700GR CHICKEN KALENG	27	Rp12,000	Rp324,000	Rp398,057,538	97.66%	C
84	19014112623	MA 07 - EUKA ADULT LIGHT 2.5 KG	4	Rp79,750	Rp319,000	Rp398,376,538	97.73%	C
85	8994571003695	MA 21 - COUNTRY PUPPY FORMULA 10Kg	3	Rp104,000	Rp312,000	Rp398,688,538	97.81%	C
86	8853301530019	MA 29 - PEDIGREE BEEF CHUNKS IN SAUCE ADULT 150GR	66	Rp4,512	Rp297,792	Rp398,986,330	97.88%	C
87	8994571005613	MA 13 - SUPREME PLUS PUPPY 380 GR	36	Rp8,250	Rp297,000	Rp399,283,330	97.96%	C
88	8853301300049	MA 29 - PEDIGREE ADULT BEEF 10 KG	2	Rp148,466	Rp296,932	Rp399,580,262	98.03%	C
89	9310022726408	MA 29 - PEDIGREE BEEF 400 G KALENG	21	Rp13,500	Rp283,500	Rp399,863,762	98.10%	C
90	9310768055947	MK 13 - SNAPPY TOM TUNA & CHUNKY SARDINES	36	Rp7,700	Rp277,200	Rp400,140,962	98.17%	C
91	9310022709203	MK 29 - WHISKAS MINCE BEEF CAN 400GR	29	Rp9,450	Rp274,050	Rp400,415,012	98.23%	C

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Klasifikasi ABC

No	Kode Barang	Nama Barang	Jumlah	Harga Beli	Nilai Pemakaian	Nilai Pemakaian Kumulatif	%	Kelas
92	8994571005699	MA 13 - SUPREME PLUS PUPPY FOR DOGS 1.2KG	12	Rp21,750	Rp261,000	Rp400,676,012	98.30%	C
93	9310022726606	MA 29 - PEDIGREE 5 MACAM DAGING 400g KALENG	22	Rp11,484	Rp252,648	Rp400,928,660	98.36%	C
94	8994571005668	MA 13 - SUPREME 1.2 KG BEEF KALENG	12	Rp21,000	Rp252,000	Rp401,180,660	98.42%	C
95	8853301400138	MK 29 - WHISKAS CHICKEN & TUNA FLAVOUR DUS 500 GR	15	Rp15,995	Rp239,925	Rp401,420,585	98.48%	C
96	8853301400114	MK 29 - WHISKAS CHICKEN & TUNA FLAVOUR 1.5 KG	6	Rp39,784	Rp238,704	Rp401,659,289	98.54%	C
97	9310768055404	MK 13 - SNAPPY TOM WHOLE FISH 400 GR	31	Rp7,700	Rp238,700	Rp401,897,989	98.60%	C
98	9556621211819	MK 17 - MACHIKO DRY CATFOOD TUNASARDIN FLAVR 1.5KG	6	Rp39,400	Rp236,400	Rp402,134,389	98.66%	C
99	8853301550048	MK 29 - WHISKAS TUNA KITTEN 85GR	76	Rp3,082	Rp234,232	Rp402,368,621	98.71%	C
100	8888621420016	MK 21 - SAVA ESSENTIALS 4 GROWING KITTENS 1,5KG	3	Rp75,000	Rp225,000	Rp402,593,621	98.77%	C
101	9310768055220	MK 13 - SNAPPY TOM SARDINE SMOKE SALMON JELY 400GR	29	Rp7,700	Rp223,300	Rp402,816,921	98.82%	C
102	9300605009806	MK 13 - FRISKIES 1.5 KG MACKEREL & SEAFOOD	6	Rp36,500	Rp219,000	Rp403,035,921	98.88%	C
103	8994571005606	MA 13 - SUPREME 380GR CHIC	28	Rp7,600	Rp212,800	Rp403,248,721	98.93%	C
104	9556621211833	MK 17 - MACHIKO DRY CATFOOD GOURMET FLAVOUR 1.5 KG	5	Rp39,400	Rp197,000	Rp403,445,721	98.98%	C
105	8853301300063	MA 29 - PEDIGREE ADULT CHICKEN LIVER 500GR	15	Rp12,912	Rp193,680	Rp403,639,401	99.02%	C
106	8853301140645	MK 29 - WHISKAS MACKEREL DUS 500GR	12	Rp15,995	Rp191,940	Rp403,831,341	99.07%	C
107	9310768055169	MK 13 - SNAPPY TOM SEAFOOD PLATER 400 GR	24	Rp7,700	Rp184,800	Rp404,016,141	99.12%	C
108	9310022807619	MK 29 - WHISKAS OCEAN FISH CAN 400GR400GR	20	Rp8,925	Rp178,500	Rp404,194,641	99.16%	C
109	19014015528	MA 07 - EUKA SENIOR SMALL BREED 3 KG	2	Rp87,000	Rp174,000	Rp404,368,641	99.20%	C
110	19014280148	MA 07 - IAMS DOG ADULT BEEF & RICE CAN 396GR	16	Rp10,513	Rp168,200	Rp404,536,841	99.24%	C
111	9556621211291	MK 17 - MACHIKO DRY CATFOOD OCEANFISH FLAVR 1.5KG	4	Rp39,400	Rp157,600	Rp404,694,441	99.28%	C
112	9300603830037	MK 13 - FRISKIES 500 GR OCEAN FISH FLAVOUR	10	Rp14,600	Rp146,000	Rp404,840,441	99.32%	C
113	8994571003367	MA 21 - MAINSOURCE PUPPY CHICKEN&RICE 3.16Kg	3	Rp44,850	Rp134,550	Rp404,974,991	99.35%	C
114	9300603830143	MK 13 - FRISKIES 500 GR KITTEN	9	Rp14,600	Rp131,400	Rp405,106,391	99.38%	C
115	8994571004647	MA 21 - COUNTRY BEEF KALENG 700g	10	Rp12,600	Rp126,000	Rp405,232,391	99.42%	C

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116	8994571005651	MA 13 - SUPREME PLUS PUPPY FOR DOGS 700g KALENG	9	Rp13,500	Rp121,500	Rp405,353,891	99.45%	C
117	9556621211826	MK 17 - MACHIKO DRY CATFOOD TUNA SARDIN FLAVR 500G	7	Rp17,000	Rp119,000	Rp405,472,891	99.47%	C
118	4949784003035	MK 21 - PF 3MIX FISH,CHICKEN,LIVER 1.5Kg	4	Rp26,975	Rp107,900	Rp405,580,791	99.50%	C
120	9310768055015	MK 13 - SNAPPY TOM FISHERMAN'S BASKET 400 GR	14	Rp7,700	Rp107,800	Rp405,688,591	99.53%	C
119	9310768055282	MK 13 - SNAPPY TOM PILCHARDS IN PRAWN JELLY 400 GR	14	Rp7,700	Rp107,800	Rp405,796,391	99.55%	C
121	9310768055961	MK 13 - SNAPPY TOM CHUNKY FISH 400 GR	14	Rp7,700	Rp107,800	Rp405,904,191	99.58%	C
122	8851012686735	MK 13 - FRISKIES 400 GR TUNA	13	Rp8,100	Rp105,300	Rp406,009,491	99.61%	C
123	9310768055756	MK 13 - SNAPPY TOM SARDINES&TREVALLY CUTLETS 400GR	13	Rp7,700	Rp100,100	Rp406,109,591	99.63%	C
124	9556621211369	MK 17 - MACHIKO SARDINE IN SALMON JELLY 400 G	13	Rp7,420	Rp96,460	Rp406,206,051	99.65%	C
125	19014280247	MA 07 - IAMS DOG ADULT CHICKEN & RICE CAN 396 GR	8	Rp10,513	Rp84,100	Rp406,290,151	99.67%	C
126	9310022807213	MK 29 - WHISKAS SARDEN, CALAMARI & PRAWNS CAN 400G	10	Rp8,050	Rp80,500	Rp406,370,651	99.69%	C
128	9556621211840	MK 17 - MACHIKO DRY CATFOOD GOURMET FLAVOUR 500 G	4	Rp17,000	Rp68,000	Rp406,438,651	99.71%	C
127	9556621211284	MK 17 - MACHIKO DRY CATFOOD OCEANFISH FLAVOUR 500G	4	Rp17,000	Rp68,000	Rp406,506,651	99.73%	C
129	9310022709302	MK 29 - WHISKAS CHIC LIVER CAN 400GR	7	Rp9,450	Rp66,150	Rp406,572,801	99.74%	C
130	9556621211390	MK 17 - MACHIKO PILCHARD PRAWN JELLY 400 G	8	Rp7,420	Rp59,360	Rp406,632,161	99.76%	C
131	8850124020352	MK 13 - FRISKIES 85 GR KITTEN MACKEREL	16	Rp3,700	Rp59,200	Rp406,691,361	99.77%	C
132	8994571003718	MA 21 - COUNTRY PUPPY FORMULA 1.5Kg	40	Rp16,900	Rp676,000	Rp407,367,361	99.94%	C
133	9310022726507	MA 29 - PEDIGREE CHICKEN ADULT 400GR KALENG	4	Rp11,484	Rp45,936	Rp407,413,297	99.95%	C
134	8853301550079	MK 29 - WHISKAS MACKEREL & SALMON 85GR	2	Rp2,831	Rp5,662	Rp407,418,959	99.95%	C
135	8853301550093	MK 29 - WHISKAS TUNA & FISHBALL 85GR	10	Rp2,916	Rp29,160	Rp407,448,119	99.96%	C
137	8994571004685	MA 21 - COUNTRY LAMB & RICE 400g	5	Rp8,050	Rp40,250	Rp407,488,369	99.97%	C
136	9310022807411	MK 29 - WHISKAS SEAFOOD PLATTER CAN 400GR	5	Rp8,050	Rp40,250	Rp407,528,619	99.98%	C
138	8994571004708	MA 21 - COUNTRY PUPPY LAMB & RICE KALENG 700g	3	Rp13,300	Rp39,900	Rp407,568,519	99.99%	C
139	8853301550017	MK 29 - WHISKAS TUNA 85GR	5	Rp2,871	Rp14,355	Rp407,582,874	99.99%	C
140	8994571004609	MA 21 - COUNTRY CHICKEN & RICE KALENG 400g	4	Rp8,050	Rp32,200	Rp407,615,074	100.00%	C

Jenis barang yang dilakukan pengolahannya. berdasarkan klasifikasi ABC yaitu: 80% x nilai pemakaian total. sehingga total jenis barang yang diolah yaitu 18 buah (cetak tebal).

Nilai pemakaian = Harga beli x Jumlah = Rp. 216.000.00 x 288 = Rp.62.208.000,00





Forecasting and Linear Regression												
Forecast Result for HMI.1												
03-12-2008 Data ke	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	22										21.98718	
2	21	22	22	22	22	22	22	22	22	22	22.55012	22
3	27	21.5	21	21	21	21.65	21.7333	21.7084	21.66	22	23.11306	21.7344
4	19	23.33333	27	27	27	23.5225	23.08123	23.18973	23.4467	22	23.67599	23.07534
5	22	22.25	19	19	19	21.93962	22.23469	22.28145	22.06025	22	24.23893	22.23863
6	29	22.2	22	22	22	21.96076	22.18261	22.00719	22.03668	22	24.80187	22.18621
7	25	23.33333	29	29	29	24.42449	23.99802	23.98826	24.39939	22	25.3648	23.99316
8	27	23.57143	25	25	25	24.62592	24.649	24.70247	24.80001	22	25.92774	24.65027
9	29	24	27	27	27	25.45685	25.71658	25.52356	25.76178	22	26.49068	25.72204
10	27	24.55556	29	29	29	26.69695	27.16614	26.71103	27.14013	22	27.05361	27.17569
11	26	24.8	27	27	27	26.80302	27.88187	27.04656	27.46342	22	27.61655	27.90086
12	27	24.90909	26	26	26	26.52196	28.13059	26.81238	27.33274	22	28.17949	27.51771
13		25.08333	27	27	27	26.68927	28.47298	26.81754	27.54421	22	28.74242	28.50245
14		25.08333	27	27	27	26.68927	29.05279	26.81754	27.85918	22	29.30536	29.08799
15		25.08333	27	27	27	26.68927	29.63261	26.81754	28.17416	22	29.8683	29.67353
16		25.08333	27	27	27	26.68927	30.21242	26.81754	28.48914	22	30.43123	30.25908
17		25.08333	27	27	27	26.68927	30.79223	26.81754	28.80412	22	30.99417	30.84462
18		25.08333	27	27	27	26.68927	31.37205	26.81754	29.11909	22	31.55711	31.43016
19		25.08333	27	27	27	26.68927	31.95186	26.81754	29.43407	22	32.12004	32.01571
20		25.08333	27	27	27	26.68927	32.53167	26.81754	29.74905	22	32.68298	32.60125
21		25.08333	27	27	27	26.68927	33.11148	26.81754	30.06403	22	33.24592	33.18679
22		25.08333	27	27	27	26.68927	33.69129	26.81754	30.37901	22	33.80885	33.77234
23		25.08333	27	27	27	26.68927	34.2711	26.81754	30.69398	22	34.37179	34.35788
24		25.08333	27	27	27	26.68927	34.85091	26.81754	31.00896	22	34.93473	34.94342
CFE		22.54726	5	5	5	13.39793	10.22597	13.02896	10.8989	37	-1.907349E-05	10.16569
MAD		3.064903	3.363636	3.363636	3.363636	2.368088	2.474091	2.369495	2.344127	4.090909	1.946581	2.478378
MSE		13.42276	17.18182	17.18182	17.18182	10.82879	10.37143	10.46685	10.52172	21.18182	6.133353	10.37128
MAPE		11.86758	13.82954	13.82954	13.82954	9.292834	9.67286	9.285318	9.211406	15.48054	7.997297	9.688793
Trk.Signal		7.356599	1.486487	1.486487	1.486487	5.6577	4.133224	5.498621	4.649449	9.044445	-9.798454E-06	4.101752
R-square		0.5567999				0.5382496	0.6389831	0.5460131	0.5853305		0.3810769	0.6414536
			m=1	m=1	m=1	Alpha=0.35	Alpha=0.21	Alpha=0.54	Alpha=0.17	Alpha=0	Y-intercept=21.4242	c=1
				W(1)=1		F(0)=22	Beta=0.27	F(0)=22	F(0)=22	Beta=22	Slope=0.5629	Alpha=0.12

Gambar L2.1

Hasil Peramalan dengan Win QSB Item 8994571004777

Forecasting and Linear Regression												
Forecast Result for HML.2												
03-12-2008 DATA KE	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast HWA
1	24										24.11539	
2	19	24	24	24	24	24	24	24	24	24	24.09441	
3	28	21.5	19	19	19	24	24	24	24	24	24.07343	
4	20	23.66667	28	28	28	24	24	24	24	24	24.05245	
5	25	22.75	20	20	20	24	24	24	24	24	24.03147	
6	30	23.2	25	25	25	24	24	24	24	24	24.01049	
7	25	24.33333	30	30	30	24	24	24	24	24	23.98951	
8	25	24.42857	25	25	25	24	24	24	24	24	23.96853	
9	22	24.5	25	25	25	24	24	24	24	24	23.94755	
10	26	24.22222	22	22	22	24	24	24	24	24	23.92657	
11	23	24.4	26	26	26	24	24	24	24	24	23.90559	
12	21	24.27273	23	23	23	24	24	24	24	24	23.88461	
13		24	21	21	21	24	24	24	24	24	23.86364	
14		24	21	21	21	24	24	24	24	24	23.84266	
15		24	21	21	21	24	24	24	24	24	23.82168	
16		24	21	21	21	24	24	24	24	24	23.8007	
17		24	21	21	21	24	24	24	24	24	23.77972	
18		24	21	21	21	24	24	24	24	24	23.75874	
19		24	21	21	21	24	24	24	24	24	23.73776	
20		24	21	21	21	24	24	24	24	24	23.71678	
21		24	21	21	21	24	24	24	24	24	23.6958	
22		24	21	21	21	24	24	24	24	24	23.67483	
23		24	21	21	21	24	24	24	24	24	23.65385	
24		24	21	21	21	24	24	24	24	24	23.63287	
CFE		2.726479	-3	-3	-3	0	0	0	0	0	-7.629395E-06	
MAD		3.127751	4.454545	4.454545	4.454545	2.727273	2.727273	2.727273	2.727273	2.727273	2.5	2.7272
MSE		14.0772	25.72727	25.72727	25.72727	10.36364	10.36364	10.36364	10.36364	10.36364	9.494754	10.363
MAPE		13.12319	18.79214	18.79214	18.79214	11.63802	11.63802	11.63802	11.63802	11.63802	10.67392	11.638
Trk. Signal		0.8717057	-0.6734694	-0.6734694	-0.6734694	0	0	0	0	0	-3.051758E-06	
R-square		8.238736E-02	0.9210526	0.9210526	0.9210526	0	0	0	0	0	5.520816E-04	
			m=1	m=1	m=1	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Y-intercept=24.1364	c
				W(1)=1		F(0)=24	Beta=0	F(0)=24	F(0)=24	Beta=24	Slope=-0.0210	Alpha

Gambar L2.2

Hasil Peramalan dengan Win QSB Item 8994571004760

Forecasting and Linear Regression												
Forecast Result for SET.1												
03-12-2008 DATA KE	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	12										10.24359	
2	9	12	12	12	12	12	12	12	12	12	10.1387	1
3	11	10.5	9	9	9	10.71	10.7331	10.8468	10.8	12	10.0338	10.725
4	9	10.66667	11	11	11	10.8347	10.80891	10.73917	10.76	12	9.928905	10.8060
5	10	10.25	9	9	9	10.04578	10.01139	10.05509	9.944	12	9.82401	10.0060
6	9	10.2	10	10	10	10.02609	9.950715	9.935133	9.783999	12	9.719114	9.94862
7	8	10	9	9	9	9.584874	9.493221	9.558347	9.29024	12	9.614219	9.49083
8	10	9.714286	8	8	8	8.903378	8.794933	8.904911	8.562623	12	9.509324	8.79128
9	8	9.75	10	10	10	9.374926	9.217765	9.231506	8.874444	12	9.404428	9.22020
10	11	9.555555	8	8	8	8.783708	8.632258	8.805276	8.319031	12	9.299533	8.63218
11	10	9.7	11	11	11	9.736713	9.545932	9.587379	9.150805	12	9.194638	9.55322
12	9	9.727273	10	10	10	9.849927	9.680584	9.858927	9.357109	12	9.089743	9.68705
13		9.666667	9	9	9	9.484459	9.341659	9.567967	9.11486	12	8.984847	9.34475
14		9.666667	9	9	9	9.484459	9.281773	9.567967	9.001169	12	8.879952	9.28593
15		9.666667	9	9	9	9.484459	9.221887	9.567967	8.887479	12	8.775057	9.2271
16		9.666667	9	9	9	9.484459	9.162001	9.567967	8.773788	12	8.670161	9.16828
17		9.666667	9	9	9	9.484459	9.102115	9.567967	8.660098	12	8.565267	9.10946
18		9.666667	9	9	9	9.484459	9.042229	9.567967	8.546408	12	8.460371	9.05064
19		9.666667	9	9	9	9.484459	8.982343	9.567967	8.432717	12	8.355475	8.99182
20		9.666667	9	9	9	9.484459	8.922457	9.567967	8.319027	12	8.250581	8.93299
21		9.666667	9	9	9	9.484459	8.862571	9.567967	8.205337	12	8.145685	8.87417
22		9.666667	9	9	9	9.484459	8.802685	9.567967	8.091646	12	8.04079	8.81535
23		9.666667	9	9	9	9.484459	8.742799	9.567967	7.977956	12	7.935894	8.75653
24		9.666667	9	9	9	9.484459	8.682913	9.567967	7.864265	12	7.830999	8.69770
CFE		-8.063781	-3	-3	-3	-5.8501	-4.868814	-5.522541	-2.842251	-28	0	-4.86134
MAD		1.1931	1.727273	1.727273	1.727273	1.234773	1.223306	1.203073	1.208121	2.545455	0.9825174	1.22328
MSE		2.125432	3.545455	3.545455	3.545455	2.255787	2.244346	2.163162	2.298824	7.454545	1.25777	2.2443
MAPE		13.28863	18.24839	18.24839	18.24839	13.49113	13.28198	13.13067	12.93116	28.31956	10.27443	13.2813
Trk. Signal		-6.75868	-1.736842	-1.736842	-1.736842	-4.737794	-3.980047	-4.590362	-2.352621	-11	0	-3.97400
R-square											9.440589E-02	
			m=1	m=1	m=1	Alpha=0.43	Alpha=0.41	Alpha=0.62	Alpha=0.2	Alpha=0	Y-intercept=10.3485	c=
				W(1)=1		F(0)=12	Beta=0.03	F(0)=12	F(0)=12	Beta=12	Slope=-0.1049	Alpha=0.1

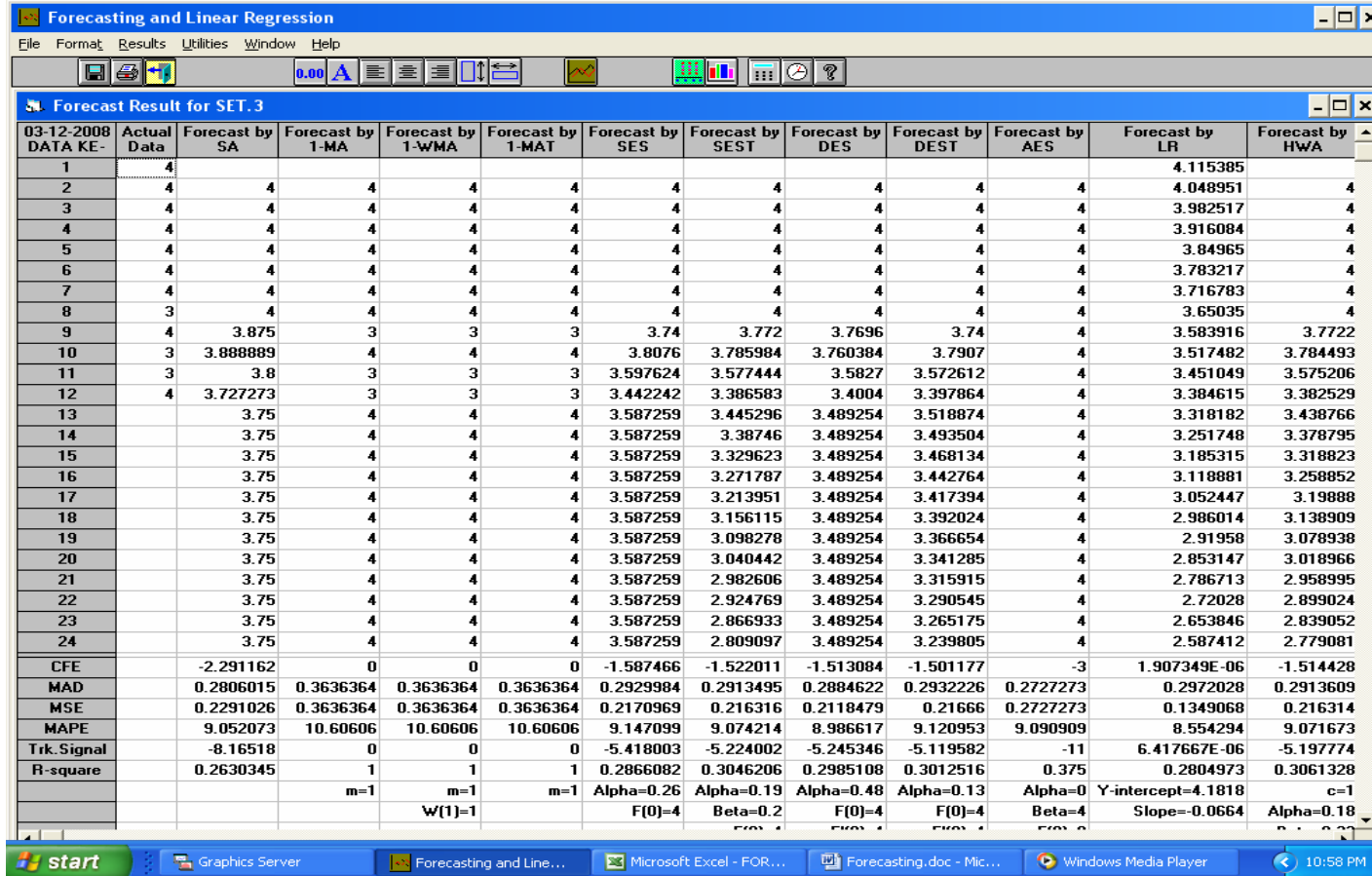
Gambar L2.3

Hasil Peramalan dengan Win QSB Item 7896642901439

Forecasting and Linear Regression											
Forecast Result for SET.2											
03-12-2008 DATA KE	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR
1	5										4.9487
2	5	5	5	5	5	5	5	5	5	5	4.8368
3	5	5	5	5	5	5	5	5	5	5	4.7249
4	5	5	5	5	5	5	5	5	5	5	4.6130
5	4	5	5	5	5	5	5	5	5	5	4.5011
6	4	4.8	4	4	4	4	4	4	4.000001	4	4.3892
7	4	4.666667	4	4	4	4	4	4	3.75	5	4.277
8	4	4.571429	4	4	4	4	4	4	3.75	5	4.1655
9	4	4.5	4	4	4	4	4	4	3.8125	5	4.0536
10	4	4.444445	4	4	4	4	4	4	3.875	5	3.9417
11	4	4.4	4	4	4	4	4	4	3.921875	5	3.8298
12	4	4.363636	4	4	4	4	4	4	3.953125	5	3.7179
13		4.333333	4	4	4	4	4	4	3.972656	5	3.606
14		4.333333	4	4	4	4	4	4	3.957031	5	3.4941
15		4.333333	4	4	4	4	4	4	3.941406	5	3.3822
16		4.333333	4	4	4	4	4	4	3.925781	5	3.2703
17		4.333333	4	4	4	4	4	4	3.910156	5	3.1585
18		4.333333	4	4	4	4	4	4	3.894531	5	3.0466
19		4.333333	4	4	4	4	4	4	3.878906	5	2.9347
20		4.333333	4	4	4	4	4	4	3.863281	5	2.8228
21		4.333333	4	4	4	4	4	4	3.847656	5	2.7109
22		4.333333	4	4	4	4	4	4	3.832031	5	2.5990
23		4.333333	4	4	4	4	4	4	3.816406	5	2.4871
24		4.333333	4	4	4	4	4	4	3.800781	5	2.375
CFE		-4.746177	-1	-1	-1	-1	-1	-1.000001	-6.250048E-02	-8	-4.053116E-
MAD		0.4314706	9.090909E-02	9.090909E-02	9.090909E-02	9.090913E-02	9.090913E-02	9.090918E-02	0.1761363	0.7272727	0.23115
MSE		0.2864307	9.090909E-02	9.090909E-02	9.090909E-02	9.090909E-02	9.090909E-02	9.090909E-02	0.1076438	0.7272727	7.303809E-
MAPE		10.78677	2.272727	2.272727	2.272727	2.272728	2.272728	2.272729	4.403408	18.18182	5.4137
Trk.Signal		-11	-11	-11	-11	-11	-11	-11	-0.3548415	-11	-1.753399E-
R-square											0.67132
			m=1	m=1	m=1	Alpha=1	Alpha=1	Alpha=1	Alpha=0.5	Alpha=0	Y-intercept=5.06
				W(1)=1		F(0)=5	Beta=0	F(0)=5	F(0)=5	Beta=5	Slope=-0.11

Gambar L2.4

Hasil Peramalan dengan Win QSB Item 7896642900500



Gambar L2.5

Hasil Peramalan dengan Win QSB Item 73893004004

Forecasting and Linear Regression												
Forecast Result for HMI. 1												
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	6										6.23077	
2	4	6	6	6	6	6	6	6	6	6	6.188811	
3	8	5	4	4	4	6	6	6	6	6	6.146853	
4	7	6	8	8	8	6	6	6	6	6	6.104895	
5	6	6.25	7	7	7	6	6	6	6	6	6.062937	
6	8	6.2	6	6	6	6	6	6	6	6	6.020979	
7	3	6.5	8	8	8	6	6	6	6	6	5.979021	
8	8	6	3	3	3	6	6	6	6	6	5.937063	
9	7	6.25	8	8	8	6	6	6	6	6	5.895105	
10	2	6.333333	7	7	7	6	6	6	6	6	5.853147	
11	6	5.9	2	2	2	6	6	6	6	6	5.811189	
12	7	5.909091	6	6	6	6	6	6	6	6	5.769231	
13		6	7	7	7	6	6	6	6	6	5.727273	
14		6	7	7	7	6	6	6	6	6	5.685315	
15		6	7	7	7	6	6	6	6	6	5.643357	
16		6	7	7	7	6	6	6	6	6	5.601399	
17		6	7	7	7	6	6	6	6	6	5.559441	
18		6	7	7	7	6	6	6	6	6	5.517483	
19		6	7	7	7	6	6	6	6	6	5.475525	
20		6	7	7	7	6	6	6	6	6	5.433567	
21		6	7	7	7	6	6	6	6	6	5.391609	
22		6	7	7	7	6	6	6	6	6	5.34965	
23		6	7	7	7	6	6	6	6	6	5.307693	
24		6	7	7	7	6	6	6	6	6	5.265735	
CFE		-0.3424244	1	1	1	0	0	0	0	0	-2.384186E-06	
MAD		1.802204	2.818182	2.818182	2.818182	1.636364	1.636364	1.636364	1.636364	1.636364	1.552448	1.63636
MSE		4.917533	10.81818	10.81818	10.81818	4	4	4	4	4	3.645688	
MAPE		46.79556	66.39611	66.39611	66.39611	42.53247	42.53247	42.53247	42.53247	42.53247	39.54691	42.5324
Trk. Signal		-0.1900032	0.3548387	0.3548387	0.3548387	0	0	0	0	0	-1.535759E-06	
R-square		3.509944E-02	0.9772727	0.9772727	0.9772727	0	0	0	0	0	5.721554E-03	
			m=1	m=1	m=1	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Y-intercept=6.2727	c=
				W(1)=1		F(0)=6	Beta=0	F(0)=6	F(0)=6	Beta=6	Slope=-0.0420	Alpha=

Gambar L2.6

Hasil Peramalan dengan Win QSB Item 1904006687

Forecasting and Linear Regression												
Forecast Result for HMI.1												
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	2										4.653846	
2	3	2	2	2	2	2	2	2	2	2	4.625874	2
3	11	2.5	3	3	3	2.16	2.1378	2.1024	2.14	2	4.597902	2.1365
4	3	5.333333	11	11	11	3.5744	3.366811	3.060864	3.3853	2	4.56993	3.354068
5	0	4.75	3	3	3	3.482496	3.393189	3.497825	3.379672	2	4.541958	3.381686
6	8	3.8	0	0	0	2.925297	2.999672	3.341699	2.952944	2	4.513986	2.993308
7	8	4.5	8	8	8	3.737249	3.736314	3.746516	3.689397	2	4.486014	3.723905
8	3	5	8	8	8	4.41929	4.41045	4.36926	4.347477	2	4.458042	4.393327
9	3	4.75	3	3	3	4.192203	4.335946	4.517004	4.234549	2	4.43007	4.321799
10	7	4.555555	3	3	3	4.001451	4.260708	4.429981	4.130827	2	4.402098	4.249306
11	3	4.8	7	7	7	4.481218	4.736617	4.652911	4.595578	2	4.374125	4.72253
12	3	4.636364	3	3	3	4.244224	4.617113	4.586735	4.449322	2	4.346154	4.60634
13		4.5	3	3	3	4.045148	4.50053	4.393654	4.315724	2	4.318182	4.492746
14		4.5	3	3	3	4.045148	4.594172	4.393654	4.377929	2	4.29021	4.586048
15		4.5	3	3	3	4.045148	4.687813	4.393654	4.440135	2	4.262238	4.679351
16		4.5	3	3	3	4.045148	4.781455	4.393654	4.50234	2	4.234265	4.772654
17		4.5	3	3	3	4.045148	4.875097	4.393654	4.564545	2	4.206294	4.865956
18		4.5	3	3	3	4.045148	4.968739	4.393654	4.62675	2	4.178321	4.959259
19		4.5	3	3	3	4.045148	5.06238	4.393654	4.688956	2	4.15035	5.052561
20		4.5	3	3	3	4.045148	5.156022	4.393654	4.751161	2	4.122377	5.145864
21		4.5	3	3	3	4.045148	5.249664	4.393654	4.813366	2	4.094406	5.239166
22		4.5	3	3	3	4.045148	5.343306	4.393654	4.875572	2	4.066433	5.332469
23		4.5	3	3	3	4.045148	5.436947	4.393654	4.937777	2	4.038461	5.425771
24		4.5	3	3	3	4.045148	5.530589	4.393654	4.999982	2	4.010489	5.519074
CFE		5.374748	1	1	1	12.78217	12.00538	11.69481	12.69494	30	2.384186E-06	12.11723
MAD		3.083104	3.727273	3.727273	3.727273	2.869985	2.884149	2.824	2.861702	3.090909	2.666667	2.879703
MSE		13.64568	23.54545	23.54545	23.54545	13.79056	13.75254	13.47534	13.75843	17.09091	9.407343	13.75246
MAPE		55.90999	82.98701	82.98701	82.98701	47.02961	48.43962	46.85583	47.22453	50.32468	55.36175	48.25099
Trk.Signal		1.743291	0.2682927	0.2682927	0.2682927	4.453742	4.162539	4.14122	4.436149	9.705883	8.940697E-07	4.207806
R-square		0.1299282				0.2103618	0.2093017	0.2051592	0.2148363	0.770548	9.901602E-04	0.2107594
			m=1	m=1	m=1	Alpha=0.16	Alpha=0.13	Alpha=0.32	Alpha=0.07	Alpha=0	Y-intercept=4.6818	c=1
				w(1)=1		F(0)=2	Beta=0.06	F(0)=2	F(0)=2	Beta=2	Slope=-0.0280	Alpha=0.01

Gambar L2.7

Hasil Peramalan dengan Win QSB Item 19014113644

Forecasting and Linear Regression

File Format Results Utilities Window Help

Forecast Result for HMI.1

02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR
1	6											7.346154
2	4											7.328671
3	6											7.311189
4	8	5.333333	5.333333				4.720001	4.720001	4.588802	5.84		7.293706
5	14						5.5392	5.5392	5.548415	5.8496		7.276224
6	9	6	6				7.114111	7.114111	7.302817	6.018689		7.258741
7	9	7.6	7.6	14	14	14	11.52108	11.52108	12.07326	6.65769		7.241259
8	6	7.833333	7.833333				9.907589	9.907589	10.02689	6.858342		7.223776
9	6	8	8				9.326733	9.326733	9.24993	7.046689		7.206294
10	6	7.75	7.75				7.197625	7.197625	6.936892	6.983394		7.188811
11	5	7.555555	7.555555				6.431145	6.431145	6.216608	6.923489		7.171329
12	8	7.3	7.3				5.515213	5.515213	5.339731	6.786803		7.153846
13	6	7.363636	7.363636				7.105476	7.105476	7.194366	6.897974		7.136364
14		7.25	7.25				6.397972	6.397972	6.399102	6.842192		7.118881
15		7.25	7.25				6.397972	6.397972	6.399102	6.856812		7.101399
16		7.25	7.25				6.397972	6.397972	6.399102	6.871431		7.083916
17		7.25	7.25				6.397972	6.397972	6.399102	6.886051		7.066434
18		7.25	7.25				6.397972	6.397972	6.399102	6.900671		7.048951
19		7.25	7.25				6.397972	6.397972	6.399102	6.915291		7.031469
20		7.25	7.25				6.397972	6.397972	6.399102	6.929911		7.013986
21		7.25	7.25				6.397972	6.397972	6.399102	6.94453		6.996504
22		7.25	7.25				6.397972	6.397972	6.399102	6.95915		6.979021
23		7.25	7.25				6.397972	6.397972	6.399102	6.97377		6.961539
24		7.25	7.25				6.397972	6.397972	6.399102	6.98839		6.944056
CFE		5.26414	5.26414	0	0	0	0.62183	0.62183	0.5222878	9.137333	15	-2.861023E-06
MAD		2.236593	2.236593	2.363636	2.363636	2.363636	2.327374	2.327374	2.356198	2.076402	1.909091	1.95979
MSE		8.670463	8.670463	8.727273	8.727273	8.727273	8.021349	8.021349	8.070628	8.224082	8.636364	6.350524
MAPE		30.06816	30.06816	31.59813	31.59813	31.59813	31.17162	31.17162	31.34827	26.25578	22.1645	28.09308
Trk.Signal		2.353642	2.353642	0	0	0	0.2671809	0.2671809	0.2216655	4.40056	7.857143	-1.459862E-06
R-square		0.1918228	0.1918228	1	1	1	0.5933203	0.5933203	0.6883335	0.1344709	0.2743903	5.731977E-04
				m=1	m=1	m=1	Alpha=0.64	Alpha=0.64	Alpha=0.84	Alpha=0.04	Alpha=0	Y-intercept=7.3636
					W(1)=1		F(0)=6	Beta=0	F(0)=6	F(0)=6	Beta=6	Slope=-0.0175

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Gambar L2.8

Hasil Peramalan dengan Win QSB Item 19014113637

Forecasting and Linear Regression											
Forecast Result for HMI.1											
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR
1	6										6.871795
2	6	6	6	6	6	6	6	6	6	6	6.819348
3	13	6	6	6	6	6	6	6	6	6	6.7669
4	5	8.333333	13	13	13	6	6	6.0007	6	6	6.714452
5	4	7.5	5	5	5	6	6	6.001286	6	6	6.662005
6	11	6.8	4	4	4	6	6	6.00166	6	6	6.609557
7	6	7.5	11	11	11	6	6	6.002527	6	6	6.557109
8	1	7.285714	6	6	6	6	6	6.003376	6	6	6.504662
9	4	6.5	1	1	1	6	6	6.003708	6	6	6.452214
10	6	6.222222	4	4	4	6	6	6.003833	6	6	6.399766
11	7	6.2	6	6	6	6	6	6.003955	6	6	6.347319
12	10	6.272727	7	7	7	6	6	6.004174	6	6	6.294871
13		6.583333	10	10	10	6	6	6.004789	6	6	6.242424
14		6.583333	10	10	10	6	6	6.004789	6	6	6.189976
15		6.583333	10	10	10	6	6	6.004789	6	6	6.137528
16		6.583333	10	10	10	6	6	6.004789	6	6	6.085081
17		6.583333	10	10	10	6	6	6.004789	6	6	6.032633
18		6.583333	10	10	10	6	6	6.004789	6	6	5.980186
19		6.583333	10	10	10	6	6	6.004789	6	6	5.927738
20		6.583333	10	10	10	6	6	6.004789	6	6	5.87529
21		6.583333	10	10	10	6	6	6.004789	6	6	5.822843
22		6.583333	10	10	10	6	6	6.004789	6	6	5.770395
23		6.583333	10	10	10	6	6	6.004789	6	6	5.717947
24		6.583333	10	10	10	6	6	6.004789	6	6	5.6655
CFE		-1.613997	4	4	4	7	7	6.97478	7	7	0
MAD		3.006231	3.818182	3.818182	3.818182	2.454545	2.454545	2.455058	2.454545	2.454545	2.496892
MSE		13.87211	21.45455	21.45455	21.45455	11.36364	11.36364	11.36339	11.36364	11.36364	10.04361
MAPE		92.24283	94.40317	94.40317	94.40317	70.32604	70.32604	70.36868	70.32604	70.32604	74.24831
Trk.Signal		-0.5368839	1.047619	1.047619	1.047619	2.851852	2.851852	2.840984	2.851852	2.851852	0
R-square		5.095625E-02	0.9095022	0.9095022	0.9095022	3.695323E-02	3.695323E-02	3.668766E-02	3.695323E-02	3.695323E-02	3.253131E-03
			m=1	m=1	m=1	Alpha=0	Alpha=0	Alpha=0.01	Alpha=0	Alpha=0	Y-intercept=6.9242
				W(1)=1		F(0)=6	Beta=0	F(0)=6	F(0)=6	Beta=6	Slope=-0.0524

Gambar L2.9

Hasil Peramalan dengan Win QSB Item 19014006632

Forecasting and Linear Regression												
Forecast Result for HMI.1												
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	0										1.269231	
2	0	0	0	0	0	0	0	0	0	0	1.583916	0
3	1	0	0	0	0	0	0	0	0	0	1.898601	0
4	3	0.3333333	1	1	1	0.4099999	0.4099999	0.3480997	0.32	0	2.213287	0.4111999
5	4	1	3	3	3	1.4719	1.4719	1.329741	1.2032	0	2.527972	1.475714
6	5	1.6	4	4	4	2.50842	2.50842	2.424271	2.192384	0	2.842657	2.5137
7	4	2.166667	5	5	5	3.529968	3.529968	3.504873	3.256627	0	3.157343	3.536067
8	2	2.428571	4	4	4	3.722681	3.722681	3.858876	3.732188	0	3.472028	3.726836
9	5	2.375	2	2	2	3.016382	3.016382	3.27131	3.434599	0	3.786713	3.016761
10	9	2.666667	5	5	5	3.829665	3.829665	3.774296	4.147894	0	4.101398	3.832269
11	1	3.3	9	9	9	5.949502	5.949502	5.677915	5.95301	0	4.416084	5.957239
12	2	3.090909	1	1	1	3.920207	3.920207	4.369533	4.744702	0	4.730769	3.918823
13		3	2	2	2	3.132922	3.132922	3.32476	4.116256	0	5.045455	3.129803
14		3	2	2	2	3.132922	3.132922	3.32476	4.29585	0	5.36014	3.129803
15		3	2	2	2	3.132922	3.132922	3.32476	4.475444	0	5.674825	3.129803
16		3	2	2	2	3.132922	3.132922	3.32476	4.655038	0	5.989511	3.129803
17		3	2	2	2	3.132922	3.132922	3.32476	4.834632	0	6.304196	3.129803
18		3	2	2	2	3.132922	3.132922	3.32476	5.014226	0	6.618881	3.129803
19		3	2	2	2	3.132922	3.132922	3.32476	5.19382	0	6.933567	3.129803
20		3	2	2	2	3.132922	3.132922	3.32476	5.373415	0	7.248252	3.129803
21		3	2	2	2	3.132922	3.132922	3.32476	5.553009	0	7.562937	3.129803
22		3	2	2	2	3.132922	3.132922	3.32476	5.732603	0	7.877623	3.129803
23		3	2	2	2	3.132922	3.132922	3.32476	5.912197	0	8.192307	3.129803
24		3	2	2	2	3.132922	3.132922	3.32476	6.091791	0	8.506993	3.129803
CFE		17.03885	2	2	2	7.641274	7.641274	7.441088	7.015395	36	4.768372E-07	7.61139
MAD		2.243438	2.181818	2.181818	2.181818	2.256914	2.256914	2.295794	2.35229	3.272727	1.895105	2.256108
MSE		7.790701	9.272727	9.272727	9.272727	7.486163	7.486163	7.571975	7.772671	16.54545	4.986597	7.486143
MAPE		80.65666	129.1111	129.1111	129.1111	108.5333	108.5333	109.0895	113.8356	100	84.75407	108.5816
Trk.Signal		7.594975	0.9166666	0.9166666	0.9166666	3.385718	3.385718	3.241183	2.982368	11	2.516152E-07	3.373682
R-square		0.6414251				0.6492916	0.6492916	0.6560574	0.7158457		0.1913627	0.6496141
			m=1	m=1	m=1	Alpha=0.41	Alpha=0.41	Alpha=0.59	Alpha=0.16	Alpha=0	Y-intercept=0.9545	c=1
				W(1)=1		F(0)=0	Beta=0	F(0)=0	F(0)=0	Beta=0	Slope=0.3147	Alpha=0.36

Gambar L2.10

Hasil Peramalan dengan Win QSB Item 19014140640

Forecasting and Linear Regression												
Forecast Result for eukanuba 19014006588												
02-04-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	0										2.679487	
2	1	0	0	0	0	0	0	0	0	0	2.707459	0
3	2	0.5	1	1	1	0.5399998	0.5399998	0.6083993	0.3	0	2.735431	0.5358998
4	7	1	2	2	2	1.3284	1.3284	1.484495	0.8325	0	2.763403	1.320511
5	4	2.5	7	7	7	4.391063	4.391063	4.882527	2.7435	0	2.791375	4.364148
6	6	2.8	4	4	4	4.179889	4.179889	4.510064	3.319968	0	2.819347	4.169001
7	3	3.333333	6	6	6	5.162748	5.162748	5.398512	4.351768	0	2.847319	5.150233
8	1	3.285714	3	3	3	3.994865	3.994865	3.98226	4.234328	0	2.875291	3.997924
9	1	3	1	1	1	2.377638	2.377638	2.099308	3.521706	0	2.903263	2.391337
10	4	2.777778	1	1	1	1.633714	1.633714	1.339355	2.950098	0	2.931236	1.64572
11	5	2.9	4	4	4	2.911508	2.911508	2.921308	3.393234	0	2.959208	2.907378
12	0	3.090909	5	5	5	4.039293	4.039293	4.262549	4.027051	0	2.98718	4.028814
13		2.833333	0	0	0	1.858076	1.858076	1.734134	3.006876	0	3.015152	1.869773
14		2.833333	0	0	0	1.858076	1.858076	1.734134	3.104208	0	3.043124	1.869773
15		2.833333	0	0	0	1.858076	1.858076	1.734134	3.20154	0	3.071096	1.869773
16		2.833333	0	0	0	1.858076	1.858076	1.734134	3.298871	0	3.099068	1.869773
17		2.833333	0	0	0	1.858076	1.858076	1.734134	3.396203	0	3.12704	1.869773
18		2.833333	0	0	0	1.858076	1.858076	1.734134	3.493534	0	3.155012	1.869773
19		2.833333	0	0	0	1.858076	1.858076	1.734134	3.590866	0	3.182984	1.869773
20		2.833333	0	0	0	1.858076	1.858076	1.734134	3.688197	0	3.210956	1.869773
21		2.833333	0	0	0	1.858076	1.858076	1.734134	3.785529	0	3.238928	1.869773
22		2.833333	0	0	0	1.858076	1.858076	1.734134	3.88286	0	3.2669	1.869773
23		2.833333	0	0	0	1.858076	1.858076	1.734134	3.980192	0	3.294872	1.869773
24		2.833333	0	0	0	1.858076	1.858076	1.734134	4.077523	0	3.322845	1.869773
CFE	8.812266	0	0	0	0	3.440883	3.440883	2.511223	4.325848	34	1.66893E-06	3.489035
MAD	2.202925	2.363636	2.363636	2.363636	2.363636	2.306554	2.306554	2.341958	2.417778	3.090909	1.981352	2.304904
MSE	6.957559	8	8	8	8	7.325997	7.325997	7.434605	8.112519	14.36364	5.129565	7.325933
MAPE	86.37857	72.4762	72.4762	72.4762	72.4762	90.44035	90.44035	89.14657	102.8232	100	80.17466	90.52708
Trk.Signal	4.000257	0	0	0	0	1.491785	1.491785	1.072275	1.789183	11	8.423189E-07	1.513744
R-square	0.4027986	0.9999999	0.9999999	0.9999999	0.9999999	0.5805622	0.5805622	0.6632754	0.5043899		1.814408E-03	0.5774874
		m=1	m=1	m=1	m=1	Alpha=0.54	Alpha=0.54	Alpha=0.78	Alpha=0.15	Alpha=0	Y-intercept=2.6515	c=1
			w(1)=1			F(0)=0	Beta=0	F(0)=0	F(0)=0	Beta=0	Slope=0.0280	Alpha=0.49

Gambar L2.11

Hasil Peramalan dengan Win QSB Item 19014132645

Forecasting and Linear Regression

File Format Results Utilities Window Help

Forecast Result for eukanuba 19014006588

02-03-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	22										24.65385	
2	14	22	22	22	22	22	22	22	22	22	23.17133	22
3	29	18	14	14	14	18.8	19.44	19.4008	18.64	22	21.68881	19.44
4	16	21.66667	29	29	29	22.88	21.2192	22.03899	22.6384	22	20.2063	21.2192
5	22	20.25	16	16	16	20.128	19.79865	20.56472	19.95435	22	18.72378	19.79865
6	27	20.6	22	22	22	20.8768	19.91761	20.75845	20.62484	22	17.24126	19.91761
7	16	21.66667	27	27	27	23.32608	21.95072	22.82215	23.20395	22	15.75874	21.95072
8	11	20.85714	16	16	16	20.39565	20.94641	20.98721	20.36097	22	14.27622	20.94641
9	14	19.625	11	11	11	16.63739	17.71137	17.40309	16.29435	22	12.79371	17.71137
10	21	19	14	14	14	15.58243	14.88012	15.63472	14.78289	22	11.31119	14.88012
11	6	19.2	21	21	21	17.74946	14.60104	17.05093	16.74506	22	9.828671	14.60104
12	0	18	6	6	6	13.04968	10.59046	13.72234	11.8573	22	8.346154	10.59046
13		16.5	0	0	0	7.829808	4.567094	8.6485	6.028533	22	6.863637	4.567094
14		16.5	0	0	0	7.829808	0.2382021	8.6485	4.65693	22	5.381119	0.2382021
15		16.5	0	0	0	7.829808	-4.09069	8.6485	3.285326	22	3.898602	-4.09069
16		16.5	0	0	0	7.829808	-8.419581	8.6485	1.913723	22	2.416084	-8.419581
17		16.5	0	0	0	7.829808	-12.74847	8.6485	0.5421197	22	0.9335668	-12.74847
18		16.5	0	0	0	7.829808	-17.07737	8.6485	-0.8294836	22	-0.5489507	-17.07737
19		16.5	0	0	0	7.829808	-21.40626	8.6485	-2.201087	22	-2.031468	-21.40626
20		16.5	0	0	0	7.829808	-25.73515	8.6485	-3.57269	22	-3.513986	-25.73515
21		16.5	0	0	0	7.829808	-30.06404	8.6485	-4.944294	22	-4.996503	-30.06404
22		16.5	0	0	0	7.829808	-34.39293	8.6485	-6.315897	22	-6.479021	-34.39293
23		16.5	0	0	0	7.829808	-38.72182	8.6485	-7.687501	22	-7.961538	-38.72182
24		16.5	0	0	0	7.829808	-43.05072	8.6485	-9.059104	22	-9.444056	-43.05072
CFE		-44.86548	-22	-22	-22	-35.4255	-27.05558	-36.38341	-31.10209	-66	-5.722046E-06	-27.05558
MAD		7.924134	8.545455	8.545455	8.545455	7.513729	6.998439	7.424183	7.37254	8.181818	5.247086	6.998439
MSE		84.02624	89.45454	89.45454	89.45454	67.54288	55.395	66.42818	63.61073	103.2727	38.22552	55.395
MAPE		55.68782	65.48747	65.48747	65.48747	53.81666	48.55823	52.50982	52.24693	60.33707	29.99679	48.55823
Trk. Signal		-5.661878	-2.574468	-2.574468	-2.574468	-4.714769	-3.865945	-4.900661	-4.21864	-8.066667	-1.090519E-06	-3.865945
R-square		0.2748881	0.7027027	0.7027027	0.7027027	0.2936983	0.2704489	0.2801657	0.2895459	0.5351351	0.4065895	0.2704489
			m=1	m=1	m=1	Alpha=0.4	Alpha=0.16	Alpha=0.57	Alpha=0.21	Alpha=0	Y-intercept=26.1364	c=1
			W(1)=1	W(1)=1	W(1)=1	F(0)=22	Beta=1	F(0)=22	F(0)=22	F(0)=22	Slope=-1.4825	Alpha=0.16

Gambar L2.12

Hasil Peramalan dengan Win QSB Item 19014006588

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Forecasting and Linear Regression													
Forecast Result for Eukanuba 19014106202													
02-03-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA	
1	1										2.320513		
2	2		1	1	1	1	1	1	1	1	2.337996	1	
3	3	1.5	2	2	2	2	1.2	1.2	1.1296	1.18	2.355478	1.1992	
4	4	2	3	3	3	3	1.56	1.56	1.425088	1.5157	2.372961	1.557919	
5	1	2.5	4	4	4	4	2.048	2.048	1.879828	1.985716	2.390443	2.044382	
6	2	2.2	1	1	1	1	1.8384	1.8384	1.952064	1.851252	2.407926	1.836341	
7	4	2.166667	2	2	2	2	1.87072	1.87072	1.987865	1.913007	2.425408	1.868942	
8	2	2.428571	4	4	4	4	2.296576	2.296576	2.263301	2.324851	2.442891	2.293448	
9	2	2.375	2	2	2	2	2.237261	2.237261	2.341996	2.319468	2.460373	2.234993	
10	6	2.333333	2	2	2	2	2.189809	2.189809	2.329907	2.312423	2.477855	2.188183	
11	2	2.7	6	6	6	6	2.951847	2.951847	2.800599	3.024057	2.495338	2.947497	
12	0	2.636364	2	2	2	2	2.761477	2.761477	2.889637	2.917468	2.51282	2.758755	
13		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.461769	2.530303	2.209211	
14		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.507583	2.547785	2.209211	
15		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.553397	2.565268	2.209211	
16		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.599211	2.58275	2.209211	
17		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.645025	2.600233	2.209211	
18		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.690839	2.617715	2.209211	
19		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.736653	2.635198	2.209211	
20		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.782467	2.65268	2.209211	
21		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.828281	2.670163	2.209211	
22		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.874095	2.687645	2.209211	
23		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.919909	2.705128	2.209211	
24		2.416667	0	0	0	0	2.209182	2.209182	2.55161	2.965724	2.72261	2.209211	
CFE		4.160065	-1	-1	-1	-1	6.04591	6.04591	6.000115	5.656059	17	-1.907349E-06	6.07034
MAD		1.439994	1.909091	1.909091	1.909091	1.512385	1.512385	1.48644	1.527198	1.727273	1.22805	1.511681	
MSE		3.100934	5.181818	5.181818	5.181818	3.549585	3.549585	3.509135	3.563598	4.818182	2.40608	3.549576	
MAPE		49.2123	87.50001	87.50001	87.50001	47.48994	47.48994	44.88655	47.58364	55	48.95901	47.43035	
Trk. Signal		2.888946	-0.5238096	-0.5238096	-0.5238096	3.9976	3.9976	4.036568	3.703553	9.842105	-1.553152E-06	4.015623	
R-square		0.1557836	0.8469388	0.8469388	0.8469388	0.2569541	0.2569541	0.2658483	0.2630272	0.9829932	1.51145E-03	0.2575016	
			m=1	m=1	m=1	Alpha=0.2	Alpha=0.2	Alpha=0.36	Alpha=0.09	Alpha=0	Y-intercept=2.3030	c=1	
				W(1)=1		F(0)=1	Beta=0	F(0)=1	F(0)=1	Beta=1	Slope=0.0175	Alpha=0.09	

Gambar L2.13

Hasil Peramalan dengan Win QSB Item 19014006700

Forecasting and Linear Regression												
Forecast Result for Eukanuba 19014106202												
02-03-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast HWA
1	7										8.012822	
2	14	7	7	7	7	7	7	7	7	7	8.131702	
3	3	10.5	14	14	14	7.35	7.42	7.3087	7.42	7	8.250584	7
4	6	8	3	3	3	7.1325	7.364799	7.311346	7.1611	7	8.369465	7.364
5	11	7.5	6	6	6	7.075875	7.360311	7.255167	7.093756	7	8.488346	7.360
6	14	8.2	11	11	11	7.272081	7.615148	7.385253	7.329408	7	8.607226	7.615
7	1	9.166667	14	14	14	7.608477	8.143885	7.75815	7.734436	7	8.726108	8.143
8	10	8	1	1	1	7.278053	8.052443	7.692841	7.341166	7	8.844989	8.052
9	11	8.25	10	10	10	7.41415	8.292171	7.753827	7.505431	7	8.963869	8.292
10	7	8.555555	11	11	11	7.593443	8.635942	7.935044	7.722233	7	9.08275	8.635
11	10	8.4	7	7	7	7.563771	8.800322	8.006907	7.689173	7	9.201632	8.800
12	10	8.545455	10	10	10	7.685582	9.085761	8.139651	7.837446	7	9.320512	9.085
13		8.666667	10	10	10	7.801303	9.390063	8.304539	7.978902	7	9.439393	9.390
14		8.666667	10	10	10	7.801303	9.666939	8.304539	7.992551	7	9.558274	9.666
15		8.666667	10	10	10	7.801303	9.943814	8.304539	8.006201	7	9.677155	9.943
16		8.666667	10	10	10	7.801303	10.22069	8.304539	8.01985	7	9.796036	10.22
17		8.666667	10	10	10	7.801303	10.49757	8.304539	8.033499	7	9.914917	10.49
18		8.666667	10	10	10	7.801303	10.77444	8.304539	8.047148	7	10.0338	10.77
19		8.666667	10	10	10	7.801303	11.05132	8.304539	8.060797	7	10.15268	11.05
20		8.666667	10	10	10	7.801303	11.32819	8.304539	8.074446	7	10.27156	11.32
21		8.666667	10	10	10	7.801303	11.60507	8.304539	8.088095	7	10.39044	11.60
22		8.666667	10	10	10	7.801303	11.88194	8.304539	8.101744	7	10.50932	11.88
23		8.666667	10	10	10	7.801303	12.15882	8.304539	8.115393	7	10.6282	12.15
24		8.666667	10	10	10	7.801303	12.43569	8.304539	8.129042	7	10.74708	12.43
CFE	4.882323		3	3	3	16.02607	9.22922	13.45312	15.16585	20	-4.768372E-06	9.22
MAD	3.938797	5.363636	5.363636	5.363636	5.363636	3.763174	3.487133	3.6436	3.749217	3.818182	3.073621	3.487
MSE	21.86295	44.45454	44.45454	44.45454	44.45454	18.67745	17.41132	17.90037	18.6193	19.09091	14.55381	17.41
MAPE	120.0922	183.6167	183.6167	183.6167	183.6167	97.65959	100.1604	97.9146	98.7905	92.06612	98.28768	100.1
Trk.Signal	1.239547	0.559322	0.559322	0.559322	0.559322	4.258658	2.64665	3.69226	4.045072	5.238095	-1.551386E-06	2.64
R-square	0.0596384					0.1375975	7.123248E-02	0.1023553	0.1250528	0.2094241	1.143947E-02	7.123248E
			m=1		m=1	Alpha=0.05	Alpha=0.03	Alpha=0.21	Alpha=0	Alpha=0	Y-intercept=7.8939	
				w(1)=1		F(0)=7	Beta=1	F(0)=7	F(0)=7	Beta=7	Slope=0.1189	Alpha=0

Gambar L2.14

Hasil Peramalan dengan Win QSB Item 19014113620

Forecasting and Linear Regression												
Forecast Result for Eukanuba 19014106202												
02-03-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	0										1.282042E-02	
2	0	0	0	0	0	0	0	0	0	0	0.3589743	
3	0	0	0	0	0	0	0	0	0	0	0.7051281	
4	0	0	0	0	0	0	0	0	0	0	1.051282	
5	4	0	0	0	0	0	0	0	0	0	1.397436	
6	0	0.8	4	4	4	1.719999	1.5368	1.488399	1.6	0	1.74359	1.5251
7	3	0.6666667	0	0	0	0.9803999	1.123161	1.160952	1.12	0	2.089744	1.126131
8	3	1	3	3	3	1.848828	1.953116	1.795456	1.968	0	2.435897	1.95366
9	4	1.25	3	3	3	2.343832	2.547158	2.340175	2.552	0	2.782051	2.551011
10	3	1.555556	4	4	4	3.055984	3.343442	3.040647	3.34368	0	3.128205	3.34965
11	4	1.7	3	3	3	3.031911	3.513809	3.132064	3.476608	0	3.474359	3.52836
12	2	1.909091	4	4	4	3.448189	3.987741	3.468927	3.942618	0	3.820513	4.004361
13		1.916667	2	2	2	2.825468	3.532678	2.973577	3.443159	0	4.166667	3.55753
14		1.916667	2	2	2	2.825468	3.753447	2.973577	3.643043	0	4.512821	3.78376
15		1.916667	2	2	2	2.825468	3.974216	2.973577	3.842927	0	4.858974	4.00999
16		1.916667	2	2	2	2.825468	4.194984	2.973577	4.042811	0	5.205128	4.236221
17		1.916667	2	2	2	2.825468	4.415753	2.973577	4.242695	0	5.551282	4.46245
18		1.916667	2	2	2	2.825468	4.636522	2.973577	4.442579	0	5.897436	4.68868
19		1.916667	2	2	2	2.825468	4.857291	2.973577	4.642463	0	6.24359	4.914911
20		1.916667	2	2	2	2.825468	5.07806	2.973577	4.842347	0	6.589744	5.14111
21		1.916667	2	2	2	2.825468	5.298829	2.973577	5.042231	0	6.935897	5.36731
22		1.916667	2	2	2	2.825468	5.519598	2.973577	5.242115	0	7.282052	5.59361
23		1.916667	2	2	2	2.825468	5.740367	2.973577	5.441998	0	7.628205	5.81984
24		1.916667	2	2	2	2.825468	5.961136	2.973577	5.641882	0	7.974359	6.04607
CFE		14.11869	2	2	2	6.570858	4.994773	6.57338	4.997093	23	4.768372E-07	4.96120
MAD		1.428972	1.454545	1.454545	1.454545	1.183564	1.15734	1.142666	1.160881	2.090909	0.9700854	1.15640
MSE		3.730148	4.363636	4.363636	4.363636	2.74026	2.672404	2.610553	2.674722	7.181818	1.481838	2.67230
MAPE		60.48401	54.76191	54.76191	54.76191	49.36777	50.96691	48.49262	50.70548	100	36.1569	51.0327
Trk.Signal		9.880314	1.375	1.375	1.375	5.551757	4.315736	5.75267	4.30457	11	4.915414E-07	4.29019
R-square		0.7619828				0.7324719	0.8460222	0.7360232	0.8352686		0.4907289	0.850252
			m=1	m=1	m=1	Alpha=0.43	Alpha=0.34	Alpha=0.61	Alpha=0.2	Alpha=0	Y-intercept=-0.3333	c=
				W(1)=1		F(0)=0	Beta=0.13	F(0)=0	F(0)=0	Beta=0	Slope=0.3462	Alpha=0.1

Gambar L2.15

Hasil Peramalan dengan Win QSB Item 19014106202

Forecasting and Linear Regression												
Forecast Result for HMI.1												
02-02-2008	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	0										0.7051281	
2	0	0	0	0	0	0	0	0	0	0	0.8799533	0
3	1	0	0	0	0	0	0	0	0	0	1.054778	0
4	2	0.3333333	1	1	1	0.8999994	0.8999994	0.9024988	1.1	0	1.229604	0.8965995
5	1	0.75	2	2	2	1.889999	1.889999	1.895249	2.392499	0	1.404429	1.885908
6	2	0.8	1	1	1	1.089	1.089	1.08977	1.4355	0	1.579254	1.091603
7	1	1	2	2	2	1.9089	1.9089	1.909238	2.209969	0	1.754079	1.906071
8	4	1	1	1	1	1.09089	1.09089	1.0907	1.203284	0	1.928904	1.093688
9	4	1.375	4	4	4	3.709087	3.709087	3.714293	4.237935	0	2.10373	3.699486
10	3	1.666667	4	4	4	3.970909	3.970909	3.978702	4.780478	0	2.278555	3.968927
11	2	1.8	3	3	3	3.097091	3.097091	3.096086	3.554248	0	2.45338	3.100187
12	0	1.818182	2	2	2	2.10971	2.10971	2.104663	2.038277	0	2.628205	2.11376
13		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-0.4802852	0	2.80303	0.2185639
14		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-1.373322	0	2.977856	0.2185639
15		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-2.266359	0	3.152681	0.2185639
16		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-3.159396	0	3.327506	0.2185639
17		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-4.052433	0	3.502331	0.2185639
18		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-4.945469	0	3.677156	0.2185639
19		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-5.838506	0	3.851982	0.2185639
20		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-6.731543	0	4.026807	0.2185639
21		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-7.624548	0	4.201632	0.2185639
22		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-8.517616	0	4.376457	0.2185639
23		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-9.410653	0	4.551282	0.2185639
24		1.666667	0	0	0	0.2109722	0.2109722	0.2027285	-10.30369	0	4.726108	0.2185639
CFE		9.456818	0	0	0	0.2344139	0.2344139	0.2188005	-2.95219	20	0	0.2437696
MAD		1.190289	1.090909	1.090909	1.090909	1.107966	1.107966	1.10788	1.224966	1.818182	0.9799922	1.108498
MSE		2.390406	1.818182	1.818182	1.818182	1.800256	1.800256	1.799612	2.104576	5.090909	1.52467	1.80024
MAPE		51.4892	62.03704	62.03704	62.03704	60.85096	60.85096	60.90423	71.82219	100	36.30968	60.80726
Trk.Signal		7.944974	0	0	0	0.2115713	0.2115713	0.1974949	-2.410018	11	0	0.2199099
R-square		0.6392524	1	1	1	0.9400432	0.9400432	0.9422461			0.192822	0.9381531
			m=1	m=1	m=1	Alpha=0.9	Alpha=0.9	Alpha=0.95	Alpha=0.55	Alpha=0	Y-intercept=0.5303	c=1
				W(1)=1		F(0)=0	Beta=0	F(0)=0	F(0)=0	Beta=0	Slope=0.1748	Alpha=0.89

Gambar L2.16

Hasil Peramalan dengan Win QSB Item 19014114641

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Forecasting and Linear Regression												
Forecast Result for HMI.1												
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by LR	Forecast by HWA
1	7										5.397435	
2	5	7	7	7	7	7	7	7	7	7	5.173659	7
3	5	6	5	5	5	6.24	6.318	6.372801	6.319999	7	4.949883	6.3184
4	3	5.666667	5	5	5	5.7688	5.806562	5.820865	5.8134	7	4.726107	5.804289
5	7	5	3	3	3	4.716656	4.746666	4.829387	4.760896	7	4.502331	4.741072
6	1	5.4	7	7	7	5.584327	5.325191	5.318141	5.344936	7	4.278555	5.31254
7	4	4.666667	1	1	1	3.842283	3.730293	4.058596	3.755113	7	4.054779	3.71764
8	4	4.571429	4	4	4	3.902215	3.568174	3.796372	3.60026	7	3.831002	3.548957
9	4	4.5	4	4	4	3.939373	3.469699	3.809463	3.505195	7	3.607226	3.446909
10	2	4.444445	4	4	4	3.962412	3.41819	3.87175	3.453906	7	3.38345	3.394253
11	4	4.2	2	2	2	3.216695	2.718685	3.296829	2.754396	7	3.159674	2.695862
12	4	4.181818	4	4	4	3.514351	2.895747	3.406038	2.930701	7	2.935898	2.871909
13		4.166667	4	4	4	3.698898	3.052152	3.613447	3.083061	7	2.712122	3.030213
14		4.166667	4	4	4	3.698898	2.866239	3.613447	2.902761	7	2.488346	2.840614
15		4.166667	4	4	4	3.698898	2.680325	3.613447	2.722461	7	2.26457	2.651015
16		4.166667	4	4	4	3.698898	2.494411	3.613447	2.542162	7	2.040793	2.461416
17		4.166667	4	4	4	3.698898	2.308498	3.613447	2.361862	7	1.817017	2.271817
18		4.166667	4	4	4	3.698898	2.122584	3.613447	2.181563	7	1.593241	2.082218
19		4.166667	4	4	4	3.698898	1.936671	3.613447	2.001263	7	1.369465	1.892618
20		4.166667	4	4	4	3.698898	1.750757	3.613447	1.820964	7	1.145689	1.703019
21		4.166667	4	4	4	3.698898	1.564844	3.613447	1.640664	7	0.9219128	1.51342
22		4.166667	4	4	4	3.698898	1.378931	3.613447	1.460365	7	0.6981366	1.323821
23		4.166667	4	4	4	3.698898	1.193017	3.613447	1.280065	7	0.4743605	1.134222
24		4.166667	4	4	4	3.698898	1.007104	3.613447	1.099766	7	0.2505844	0.944623
CFE		-12.63102	-3	-3	-3	-8.687115	-5.99721	-8.58024	-6.23874	-34	0	-5.851829
MAD		1.511911	1.909091	1.909091	1.909091	1.493088	1.612607	1.482188	1.60234	3.090909	1.102758	1.61883
MSE		3.867314	7	7	7	4.015651	3.891959	3.784696	3.893009	11.81818	2.208819	3.89176
MAPE		72.06186	89.89178	89.89178	89.89178	71.44482	71.45148	69.24023	71.42873	130.7576	48.38663	71.45904
Trk.Signal		-8.354342	-1.571429	-1.571429	-1.571429	-5.818221	-3.718953	-5.788903	-3.893518	-11	0	-3.61485
R-square		0.8926452				0.9051898	0.9912046	0.9147317	0.985979		0.212698	0.9958137
			m=1	m=1	m=1	Alpha=0.38	Alpha=0.31	Alpha=0.56	Alpha=0.17	Alpha=0	Y-intercept=5.6212	c=1
				w(1)=1		F(0)=7	Beta=0.1	F(0)=7	F(0)=7	Beta=7	Slope=-0.2238	Alpha=0.09

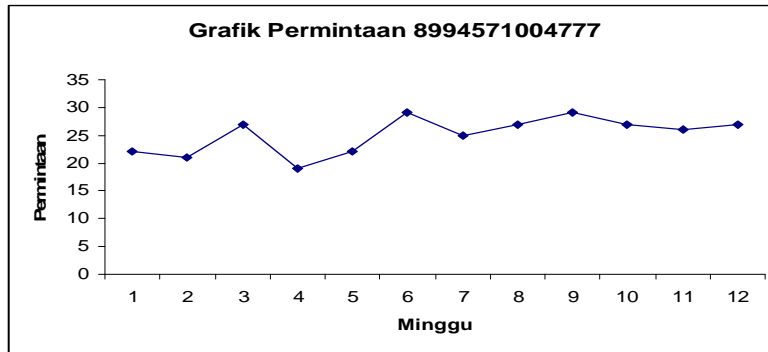
Gambar L2.17

Hasil Peramalan dengan Win QSB Item 19014106080

Forecast Result for HMI.1												
02-02-2008 Data ke-	Actual Data	Forecast by SA	Forecast by 1-MA	Forecast by 1-WMA	Forecast by 1-MAT	Forecast by SES	Forecast by SEST	Forecast by SEST	Forecast by DES	Forecast by DEST	Forecast by AES	Forecast by AES
1	3											
2	3											
3	9	3	3	3	3	3	3	3	3	3	3	3
4	1	5	9	9	9	3	3	3	3	3	3	3
5	2	4	1	1	1	3	3	3	3	3	3	3
6	2	3.6	2	2	2	3	3	3	3	3	3	3
7	0	3.333333	2	2	2	3	3	3	3	3	3	3
8	3	2.857143	0	0	0	3	3	3	3	3	3	3
9	3	2.875	3	3	3	3	3	3	3	3	3	3
10	2	2.888889	3	3	3	3	3	3	3	3	3	3
11	3	2.8	2	2	2	3	3	3	3	3	3	3
12	1	2.818182	3	3	3	3	3	3	3	3	3	3
13		2.666667	1	1	1	3	3	3	3	3	3	3
14		2.666667	1	1	1	3	3	3	3	3	3	3
15		2.666667	1	1	1	3	3	3	3	3	3	3
16		2.666667	1	1	1	3	3	3	3	3	3	3
17		2.666667	1	1	1	3	3	3	3	3	3	3
18		2.666667	1	1	1	3	3	3	3	3	3	3
19		2.666667	1	1	1	3	3	3	3	3	3	3
20		2.666667	1	1	1	3	3	3	3	3	3	3
21		2.666667	1	1	1	3	3	3	3	3	3	3
22		2.666667	1	1	1	3	3	3	3	3	3	3
23		2.666667	1	1	1	3	3	3	3	3	3	3
24		2.666667	1	1	1	3	3	3	3	3	3	3
CFE		-7.172547	-2	-2	-2	-4	-4	-4	-4	-4	-4	-4
MAD		1.828024	2.181818	2.181818	2.181818	1.454545	1.454545	1.454545	1.454545	1.454545	1.454545	1.454545
MSE		6.713005	10.90909	10.90909	10.90909	5.090909	5.090909	5.090909	5.090909	5.090909	5.090909	5.090909
MAPE		88.85246	130	130	130	61.66666	61.66666	61.66666	61.66666	61.66666	61.66666	61.66666
Trk.Signal		-3.923662	-0.9166666	-0.9166666	-0.9166666	-2.75	-2.75	-2.75	-2.75	-2.75	-2.75	-2.75
R-square		0.1714973	0.9533334	0.9533334	0.9533334	2.666665E-02	2.666665E-02	2.666665E-02	2.666665E-02	2.666665E-02	2.666665E-02	2.666665E-02
			m=1	m=1	m=1	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Alpha=0	Y-inter
				W(1)=1		F(0)=3	Beta=0	Beta=0	F(0)=3	F(0)=3	Beta=3	S

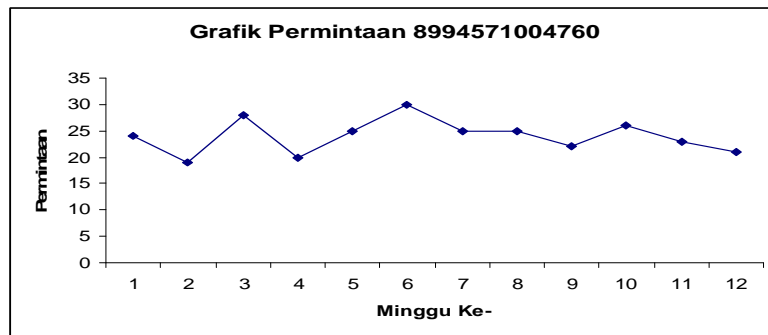
Gambar L2.18

Hasil Peramalan dengan Win QSB Item 19014140633



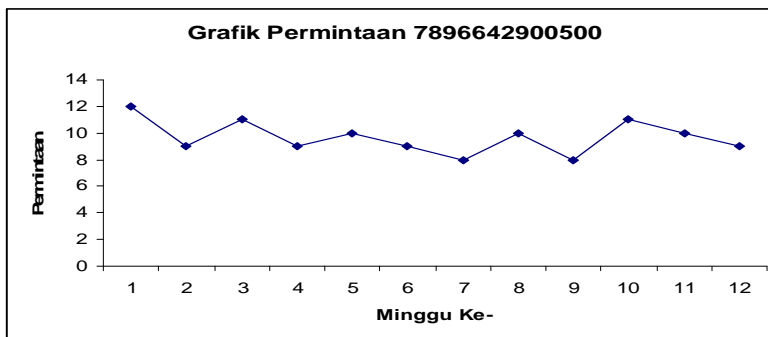
Gambar L2.19

Ploting Item 8994571004777



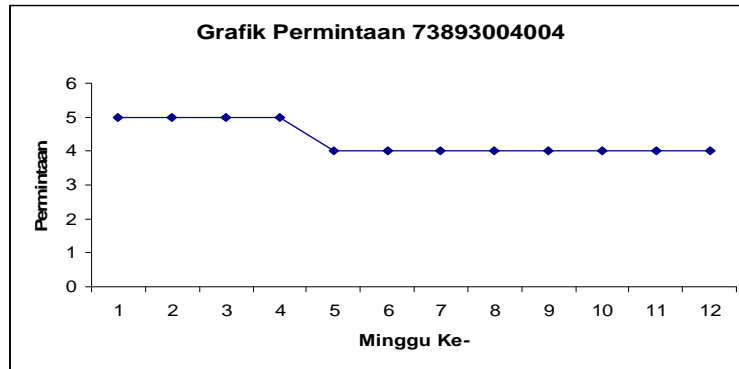
Gambar L2.20

Ploting Item 8994571004760



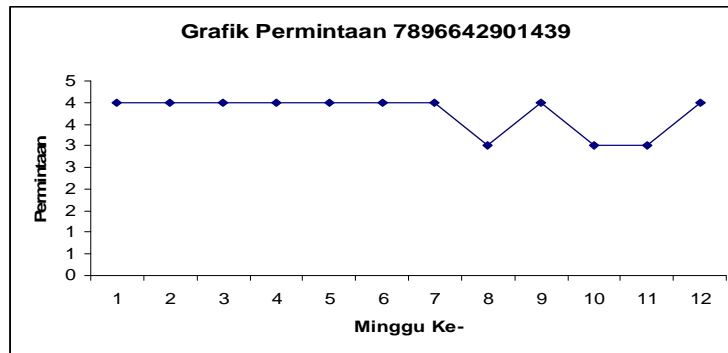
Gambar L2.21

Ploting Item 7896642900500



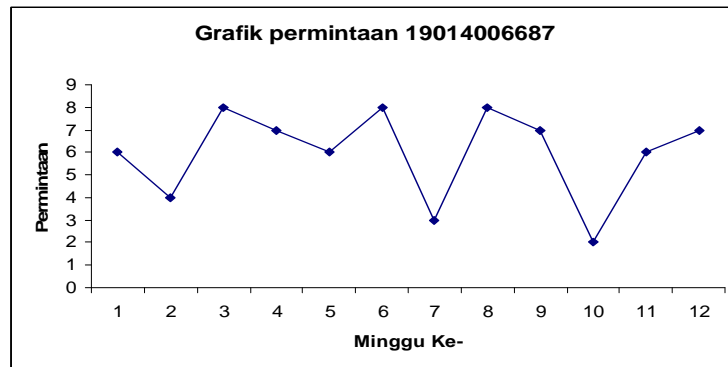
Gambar L2.22

Ploting Item 73893004004



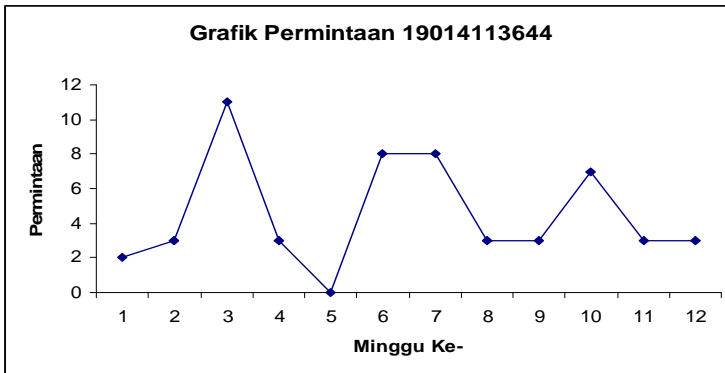
Gambar L2.23

Ploting Item 7896642901439

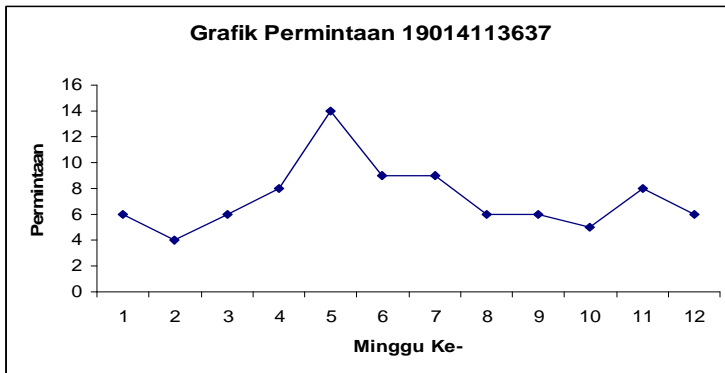


Gambar L2.24

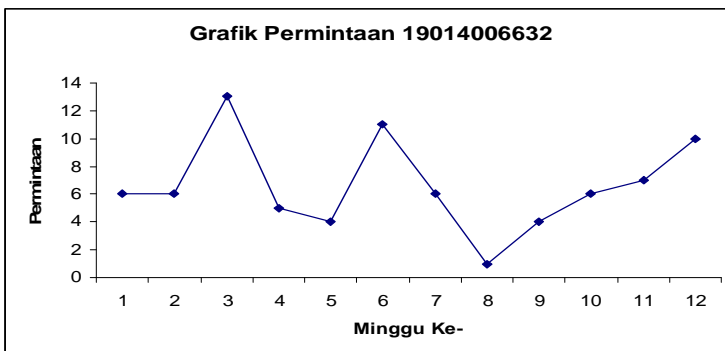
Ploting Item 19014006687



Gambar L2.25
 Ploting Item 19014113644



Gambar L2.26
 Ploting Item 19014113637



Gambar L2.27
 Ploting Item 19014006632



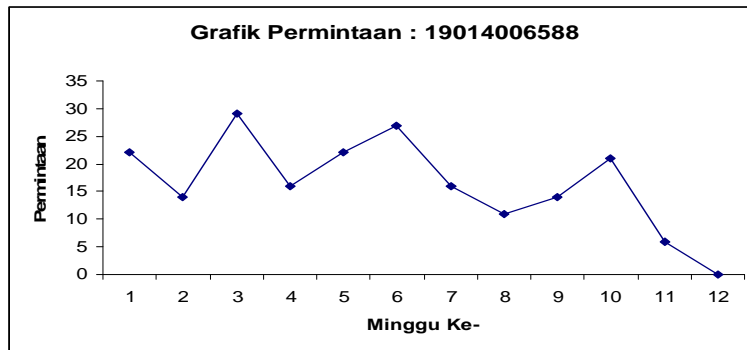
Gambar L2.28

Ploting Item 19014140640



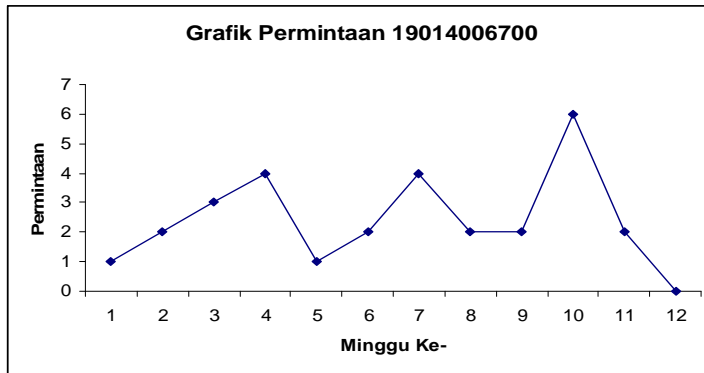
Gambar L2.29

Ploting Item 19014132645



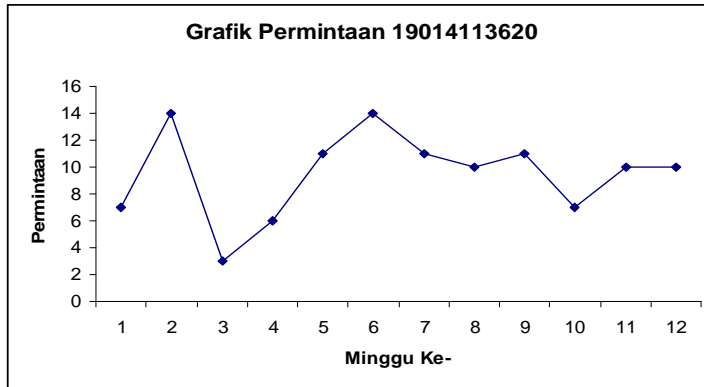
Gambar L2.30

Ploting Item 19014006588



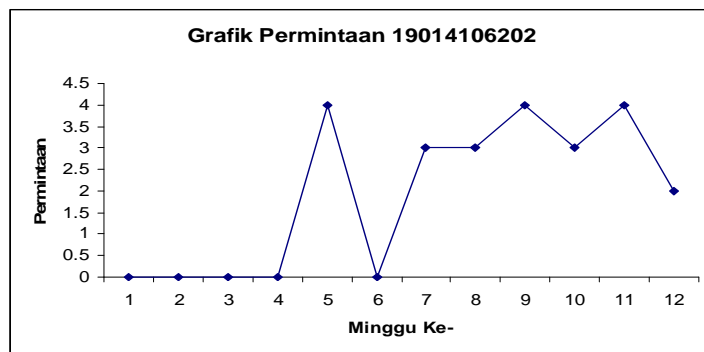
Gambar L2.31

Ploting Item 19014006700



Gambar L2.32

Ploting Item 19014113620



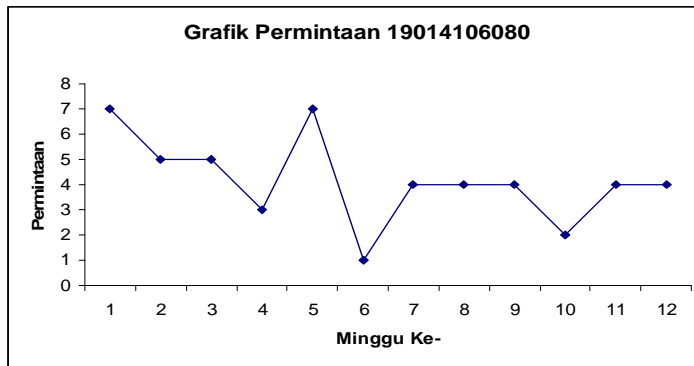
Gambar L2.33

Ploting Item 19014106202



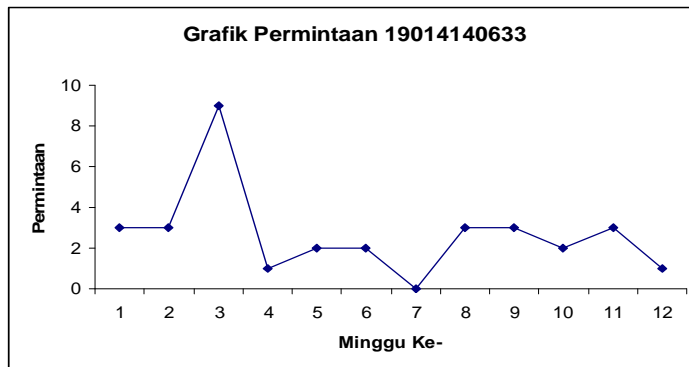
Gambar L2.34

Ploting Item 19014114641



Gambar L2.35

Ploting Item 19014106080



Gambar L2.36

Ploting Item 19014140633

Persediaan diambil rata – rata per minggu. Inventori awal yaitu persediaan awal yang ada pada gudang dan etalase, begitu juga dengan inventori akhir yaitu persediaan akhir yang ada pada gudang dan etalase.

Tabel L3.2

Persediaan Rata – Rata 8994571004777

Item : 8994571004777				
Supplier : HMI				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	21	2	0	19
2-Nov-07	19	3	0	16
3-Nov-07	16	9	0	7
4-Nov-07	7	2	0	5
5-Nov-07	5	2	0	3
6-Nov-07	3	2	0	1
7-Nov-07	1	2	100	99
8-Nov-07	99	2	0	97
9-Nov-07	97	3	0	94
10-Nov-07	94	2	0	92
11-Nov-07	92	2	0	90
12-Nov-07	90	3	0	87
13-Nov-07	87	6	0	81
14-Nov-07	81	3	0	78
15-Nov-07	78	6	0	72
16-Nov-07	72	11	0	61
17-Nov-07	61	0	0	61
18-Nov-07	61	1	0	60
19-Nov-07	60	3	0	57
20-Nov-07	57	1	0	56
21-Nov-07	56	5	0	51
22-Nov-07	51	2	0	49
23-Nov-07	49	3	0	46
24-Nov-07	46	1	0	45
25-Nov-07	45	4	0	41
26-Nov-07	41	2	0	39
27-Nov-07	39	2	0	37
28-Nov-07	37	5	0	32
29-Nov-07	32	3	0	29
30-Nov-07	29	2	0	27
01-Dec-07	27	3	0	24
02-Dec-07	24	4	0	20
03-Dec-07	20	3	0	17
04-Dec-07	17	3	0	14
05-Dec-07	14	4	0	10
06-Dec-07	10	4	0	6
07-Dec-07	6	6	0	0
08-Dec-07	0	3	100	97
09-Dec-07	97	4	0	93
10-Dec-07	93	5	0	88
11-Dec-07	88	5	0	83
12-Dec-07	83	2	0	81
13-Dec-07	81	2	0	79
14-Dec-07	79	4	0	75

Item : 8994571004777				
Supplier : HMI				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	75	5	0	70
16-Dec-07	70	2	0	68
17-Dec-07	68	4	0	64
18-Dec-07	64	5	0	59
19-Dec-07	59	3	0	56
20-Dec-07	56	2	0	54
21-Dec-07	54	6	0	48
22-Dec-07	48	2	0	46
23-Dec-07	46	2	0	44
24-Dec-07	44	3	0	41
25-Dec-07	41	9	0	32
26-Dec-07	32	3	0	29
27-Dec-07	31	6	0	25
28-Dec-07	25	2	0	23
29-Dec-07	23	5	0	18
30-Dec-07	18	7	0	11
31-Dec-07	11	2	0	9
1-Jan-08	9	4	0	5
2-Jan-08	5	3	0	2
3-Jan-08	2	1	0	1
4-Jan-08	1	3	100	98
5-Jan-08	98	5	0	93
6-Jan-08	93	4	0	89
7-Jan-08	89	9	0	80
8-Jan-08	80	2	0	78
9-Jan-08	78	3	0	75
10-Jan-08	75	2	0	73
11-Jan-08	73	7	0	66
12-Jan-08	66	5	0	61
13-Jan-08	61	2	0	59
14-Jan-08	59	5	0	54
15-Jan-08	54	3	0	51
16-Jan-08	51	2	0	49
17-Jan-08	49	1	0	48
18-Jan-08	48	0	0	48
19-Jan-08	48	2	0	46
20-Jan-08	46	3	0	43
21-Jan-08	43	1	0	42
22-Jan-08	42	1	0	41
23-Jan-08	41	11	0	30
Total				4148
Rata - Rata Persediaan/ Minggu				345.67

Tabel L3.3

Persediaan Rata – Rata 8994571004760

Item : 8994571004760				
Supplier : HMI				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	11	2	0	9
2-Nov-07	9	3	0	6
3-Nov-07	6	2	0	4
4-Nov-07	4	8	100	96
5-Nov-07	96	3	0	93
6-Nov-07	93	2	0	91
7-Nov-07	91	4	0	87
8-Nov-07	87	6	0	81
9-Nov-07	81	1	0	80
10-Nov-07	80	2	0	78
11-Nov-07	78	2	0	76
12-Nov-07	76	3	0	73
13-Nov-07	73	2	0	71
14-Nov-07	71	3	0	68
15-Nov-07	68	6	0	62
16-Nov-07	62	4	0	58
17-Nov-07	58	7	0	51
18-Nov-07	51	1	0	50
19-Nov-07	50	3	0	47
20-Nov-07	47	3	0	44
21-Nov-07	44	4	0	40
22-Nov-07	40	2	0	38
23-Nov-07	38	1	0	37
24-Nov-07	37	2	0	35
25-Nov-07	35	9	0	26
26-Nov-07	26	1	0	25
27-Nov-07	25	1	0	24
28-Nov-07	24	4	0	20
29-Nov-07	20	10	0	10
30-Nov-07	10	5	0	5
01-Dec-07	5	5	0	0
02-Dec-07	0	3	100	97
03-Dec-07	97	2	0	95
04-Dec-07	95	0	0	95
05-Dec-07	95	0	0	95
06-Dec-07	95	2	0	93
07-Dec-07	93	8	0	85
08-Dec-07	85	8	0	77
09-Dec-07	77	2	0	75
10-Dec-07	75	3	0	72
11-Dec-07	72	2	0	70
12-Dec-07	70	5	0	65
13-Dec-07	65	6	0	59
14-Dec-07	59	4	0	55

Item : 8994571004760				
Supplier : HMI				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	55	3	0	52
16-Dec-07	52	3	0	49
17-Dec-07	49	1	0	48
18-Dec-07	48	2	0	46
19-Dec-07	46	6	0	40
20-Dec-07	40	3	0	37
21-Dec-07	37	2	0	35
22-Dec-07	35	1	0	34
23-Dec-07	34	3	0	31
24-Dec-07	31	8	0	23
25-Dec-07	23	6	0	17
26-Dec-07	17	2	0	15
27-Dec-07	15	2	0	13
28-Dec-07	13	1	0	12
29-Dec-07	12	3	0	9
30-Dec-07	9	8	0	1
31-Dec-07	1	6	100	95
1-Jan-08	95	1	0	94
2-Jan-08	94	1	0	93
3-Jan-08	93	3	0	90
4-Jan-08	90	2	0	88
5-Jan-08	88	8	0	80
6-Jan-08	80	5	0	75
7-Jan-08	75	4	0	71
8-Jan-08	71	2	0	69
9-Jan-08	69	2	0	67
10-Jan-08	67	2	0	65
11-Jan-08	65	3	0	62
12-Jan-08	62	2	0	60
13-Jan-08	60	3	0	57
14-Jan-08	57	2	0	55
15-Jan-08	55	8	0	47
16-Jan-08	47	3	0	44
17-Jan-08	44	8	0	36
18-Jan-08	36	3	0	33
19-Jan-08	33	2	0	31
20-Jan-08	31	2	0	29
21-Jan-08	29	2	0	27
22-Jan-08	27	2	0	25
23-Jan-08	25	2	0	23
Total				4396
Rata - Rata Persediaan/ Minggu				366.33

Tabel L3.4

Persediaan Rata – Rata 19014006687

Item : 19014006687				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	3	1	0	2
2-Nov-07	2	1	0	1
3-Nov-07	1	1	10	10
4-Nov-07	10	1	0	9
5-Nov-07	9	1	0	8
6-Nov-07	8	0	0	8
7-Nov-07	8	1	0	7
8-Nov-07	7	1	0	6
9-Nov-07	6	0	0	6
10-Nov-07	6	1	0	5
11-Nov-07	5	0	0	5
12-Nov-07	5	1	0	4
13-Nov-07	4	0	0	4
14-Nov-07	4	1	0	3
15-Nov-07	3	2	0	1
16-Nov-07	1	2	10	9
17-Nov-07	9	0	0	9
18-Nov-07	9	2	0	7
19-Nov-07	7	2	0	5
20-Nov-07	5	0	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	1	0	4
23-Nov-07	4	0	0	4
24-Nov-07	4	1	0	3
25-Nov-07	3	2	0	1
26-Nov-07	1	0	10	11
27-Nov-07	11	1	0	10
28-Nov-07	10	2	0	8
29-Nov-07	8	1	0	7
30-Nov-07	7	3	0	4
01-Dec-07	4	0	0	4
02-Dec-07	4	0	0	4
03-Dec-07	4	0	0	4
04-Dec-07	4	1	0	3
05-Dec-07	3	1	0	2
06-Dec-07	2	2	0	0
07-Dec-07	0	1	10	9
08-Dec-07	9	1	0	8
09-Dec-07	8	0	0	8
10-Dec-07	8	1	0	7
11-Dec-07	7	2	0	5
12-Dec-07	5	1	0	4
13-Dec-07	4	0	0	4
14-Dec-07	4	0	0	4

Item : 19014006687				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	4	0	0	4
16-Dec-07	4	0	0	4
17-Dec-07	4	0	0	4
18-Dec-07	4	0	0	4
19-Dec-07	4	3	0	1
20-Dec-07	1	1	10	10
21-Dec-07	10	2	0	8
22-Dec-07	8	2	0	6
23-Dec-07	6	2	0	4
24-Dec-07	4	0	0	4
25-Dec-07	4	1	0	3
26-Dec-07	3	0	0	3
27-Dec-07	3	1	0	2
28-Dec-07	2	1	0	1
29-Dec-07	1	0	10	11
30-Dec-07	11	0	0	11
31-Dec-07	11	2	0	9
1-Jan-08	9	2	0	7
2-Jan-08	7	1	0	6
3-Jan-08	6	1	0	5
4-Jan-08	5	1	0	4
5-Jan-08	4	0	0	4
6-Jan-08	4	0	0	4
7-Jan-08	4	0	0	4
8-Jan-08	4	0	0	4
9-Jan-08	4	0	0	4
10-Jan-08	4	1	0	3
11-Jan-08	3	2	0	1
12-Jan-08	1	0	10	11
13-Jan-08	11	1	0	10
14-Jan-08	10	0	0	10
15-Jan-08	10	1	0	9
16-Jan-08	9	1	0	8
17-Jan-08	8	0	0	8
18-Jan-08	8	0	0	8
19-Jan-08	8	0	0	8
20-Jan-08	8	1	0	7
21-Jan-08	7	3	0	4
22-Jan-08	4	1	0	3
23-Jan-08	3	2	0	1
Total			459	
Rata - Rata Persediaan/ Minggu			38.25	

Tabel L3.5

Persediaan Rata – Rata 19014113644

Item : 19014113644				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	4	1	0	3
2-Nov-07	3	1	0	2
3-Nov-07	2	0	0	2
4-Nov-07	2	0	0	2
5-Nov-07	2	0	0	2
6-Nov-07	2	0	0	2
7-Nov-07	2	0	0	2
8-Nov-07	2	0	0	2
9-Nov-07	2	1	0	1
10-Nov-07	1	1	10	10
11-Nov-07	10	0	0	10
12-Nov-07	10	0	0	10
13-Nov-07	10	1	0	9
14-Nov-07	9	0	0	9
15-Nov-07	9	0	0	9
16-Nov-07	9	5	0	4
17-Nov-07	4	1	0	3
18-Nov-07	3	1	0	2
19-Nov-07	2	0	0	2
20-Nov-07	2	2	0	0
21-Nov-07	0	2	10	8
22-Nov-07	8	0	0	8
23-Nov-07	8	0	0	8
24-Nov-07	8	2	0	6
25-Nov-07	6	0	0	6
26-Nov-07	6	1	0	5
27-Nov-07	5	0	0	5
28-Nov-07	5	0	0	5
29-Nov-07	5	0	0	5
30-Nov-07	5	0	0	5
01-Dec-07	5	0	0	5
02-Dec-07	5	0	0	5
03-Dec-07	5	0	0	5
04-Dec-07	5	0	0	5
05-Dec-07	5	0	0	5
06-Dec-07	5	2	0	3
07-Dec-07	3	2	0	1
08-Dec-07	1	0	10	11
09-Dec-07	11	0	0	11
10-Dec-07	11	2	0	9
11-Dec-07	9	0	0	9
12-Dec-07	9	2	0	7
13-Dec-07	7	1	0	6
14-Dec-07	6	0	0	6

Item : 19014113644				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	6	0	0	6
16-Dec-07	6	5	0	1
17-Dec-07	1	0	10	11
18-Dec-07	11	1	0	10
19-Dec-07	10	1	0	9
20-Dec-07	9	0	0	9
21-Dec-07	9	2	0	7
22-Dec-07	7	0	0	7
23-Dec-07	7	0	0	7
24-Dec-07	7	0	0	7
25-Dec-07	7	1	0	6
26-Dec-07	6	0	0	6
27-Dec-07	6	0	0	6
28-Dec-07	6	1	0	5
29-Dec-07	5	0	0	5
30-Dec-07	5	0	0	5
31-Dec-07	5	1	0	4
1-Jan-08	4	1	0	3
2-Jan-08	3	0	0	3
3-Jan-08	3	0	0	3
4-Jan-08	3	1	0	2
5-Jan-08	2	1	0	1
6-Jan-08	1	2	10	9
7-Jan-08	9	1	0	8
8-Jan-08	8	2	0	6
9-Jan-08	6	0	0	6
10-Jan-08	6	1	0	5
11-Jan-08	5	0	0	5
12-Jan-08	5	1	0	4
13-Jan-08	4	0	0	4
14-Jan-08	4	1	0	3
15-Jan-08	3	0	0	3
16-Jan-08	3	0	0	3
17-Jan-08	3	1	0	2
18-Jan-08	2	0	0	2
19-Jan-08	2	1	0	1
20-Jan-08	1	0	10	11
21-Jan-08	11	0	0	11
22-Jan-08	11	0	0	11
23-Jan-08	11	1	0	10
Total				462
Rata - Rata Persediaan/ Minggu				38.5

Tabel L3.6

Persediaan Rata – Rata 7896642900500

Item : 7896642900500				
Supplier : Setrasari				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	2	1	0	1
2-Nov-07	1	2	10	9
3-Nov-07	9	0	0	9
4-Nov-07	9	4	0	5
5-Nov-07	5	3	0	2
6-Nov-07	2	2	0	0
7-Nov-07	0	0	10	10
8-Nov-07	10	2	0	8
9-Nov-07	8	0	0	8
10-Nov-07	8	1	0	7
11-Nov-07	7	0	0	7
12-Nov-07	7	1	0	6
13-Nov-07	6	3	0	3
14-Nov-07	3	2	0	1
15-Nov-07	1	3	10	8
16-Nov-07	8	2	0	6
17-Nov-07	6	0	0	6
18-Nov-07	6	1	0	5
19-Nov-07	5	2	0	3
20-Nov-07	3	3	0	0
21-Nov-07	0	0	10	10
22-Nov-07	10	2	0	8
23-Nov-07	8	2	0	6
24-Nov-07	6	1	0	5
25-Nov-07	5	3	0	2
26-Nov-07	2	0	0	2
27-Nov-07	2	1	0	1
28-Nov-07	1	0	10	11
29-Nov-07	11	2	0	9
30-Nov-07	9	0	0	9
01-Dec-07	9	2	0	7
02-Dec-07	7	0	0	7
03-Dec-07	7	2	0	5
04-Dec-07	5	2	0	3
05-Dec-07	3	2	0	1
06-Dec-07	1	1	10	10
07-Dec-07	10	2	0	8
08-Dec-07	8	2	0	6
09-Dec-07	6	0	0	6
10-Dec-07	6	0	0	6
11-Dec-07	6	3	0	3
12-Dec-07	3	1	0	2
13-Dec-07	2	0	0	2
14-Dec-07	2	1	0	1

Item : 7896642900500				
Supplier : Setrasari				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	1	1	10	10
16-Dec-07	10	1	0	9
17-Dec-07	9	0	0	9
18-Dec-07	9	2	0	7
19-Dec-07	7	3	0	4
20-Dec-07	4	2	0	2
21-Dec-07	2	0	0	2
22-Dec-07	2	1	0	1
23-Dec-07	1	3	10	8
24-Dec-07	8	1	0	7
25-Dec-07	7	3	0	4
26-Dec-07	4	0	0	4
27-Dec-07	4	2	0	2
28-Dec-07	2	1	0	1
29-Dec-07	1	2	10	9
30-Dec-07	9	2	0	7
31-Dec-07	7	0	0	7
1-Jan-08	7	1	0	6
2-Jan-08	6	0	0	6
3-Jan-08	6	2	0	4
4-Jan-08	4	3	0	1
5-Jan-08	1	0	10	11
6-Jan-08	11	3	0	8
7-Jan-08	8	1	0	7
8-Jan-08	7	2	0	5
9-Jan-08	5	0	0	5
10-Jan-08	5	2	0	3
11-Jan-08	3	3	0	0
12-Jan-08	0	0	10	10
13-Jan-08	10	1	0	9
14-Jan-08	9	2	0	7
15-Jan-08	7	2	0	5
16-Jan-08	5	0	0	5
17-Jan-08	5	1	0	4
18-Jan-08	4	0	0	4
19-Jan-08	4	2	0	2
20-Jan-08	2	2	0	0
21-Jan-08	0	1	10	9
22-Jan-08	9	0	0	9
23-Jan-08	9	3	0	6
Total				453
Rata - Rata Persediaan/ Minggu				37.75

Tabel L3.7

Persediaan Rata – Rata 19014113637

Item : 19014113637				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	11	1	0	10
2-Nov-07	10	1	0	9
3-Nov-07	9	1	0	8
4-Nov-07	8	0	0	8
5-Nov-07	8	1	0	7
6-Nov-07	7	1	0	6
7-Nov-07	6	1	0	5
8-Nov-07	5	1	0	4
9-Nov-07	4	1	0	3
10-Nov-07	3	0	0	3
11-Nov-07	3	0	0	3
12-Nov-07	3	0	0	3
13-Nov-07	3	1	0	2
14-Nov-07	2	1	0	1
15-Nov-07	1	0	10	11
16-Nov-07	11	3	0	8
17-Nov-07	8	0	0	8
18-Nov-07	8	1	0	7
19-Nov-07	7	1	0	6
20-Nov-07	6	1	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	1	0	4
23-Nov-07	4	0	0	4
24-Nov-07	4	3	0	1
25-Nov-07	1	0	0	1
26-Nov-07	1	1	10	10
27-Nov-07	10	1	0	9
28-Nov-07	9	2	0	7
29-Nov-07	7	2	0	5
30-Nov-07	5	3	0	2
01-Dec-07	2	2	0	0
02-Dec-07	0	1	10	9
03-Dec-07	9	0	0	9
04-Dec-07	9	2	0	7
05-Dec-07	7	3	0	4
06-Dec-07	4	0	0	4
07-Dec-07	4	1	0	3
08-Dec-07	3	2	0	1
09-Dec-07	1	1	10	10
10-Dec-07	10	2	0	8
11-Dec-07	8	1	0	7
12-Dec-07	7	2	0	5
13-Dec-07	5	1	0	4
14-Dec-07	4	0	0	4

Item : 19014113637				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	4	0	0	4
16-Dec-07	4	1	0	3
17-Dec-07	3	3	0	0
18-Dec-07	0	1	10	9
19-Dec-07	9	3	0	6
20-Dec-07	6	1	0	5
21-Dec-07	5	1	0	4
22-Dec-07	4	3	0	1
23-Dec-07	1	0	10	11
24-Dec-07	11	0	0	11
25-Dec-07	11	1	0	10
26-Dec-07	10	0	0	10
27-Dec-07	10	1	0	9
28-Dec-07	9	2	0	7
29-Dec-07	7	0	0	7
30-Dec-07	7	0	0	7
31-Dec-07	7	1	0	6
1-Jan-08	6	1	0	5
2-Jan-08	5	1	0	4
3-Jan-08	4	0	0	4
4-Jan-08	4	0	0	4
5-Jan-08	4	3	0	1
6-Jan-08	1	2	10	9
7-Jan-08	9	0	0	9
8-Jan-08	9	0	0	9
9-Jan-08	9	0	0	9
10-Jan-08	9	0	0	9
11-Jan-08	9	0	0	9
12-Jan-08	9	1	0	8
13-Jan-08	8	3	0	5
14-Jan-08	5	3	0	2
15-Jan-08	2	0	0	2
16-Jan-08	2	1	0	1
17-Jan-08	1	0	10	11
18-Jan-08	11	1	0	10
19-Jan-08	10	0	0	10
20-Jan-08	10	3	0	7
21-Jan-08	7	0	0	7
22-Jan-08	7	1	0	6
23-Jan-08	6	1	0	5
Total				496
Rata - Rata Persediaan/ Minggu				41.33333333

Tabel L3.8

Persediaan Rata – Rata 19014006632

Item : 19014006632				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	4	0	0	4
2-Nov-07	4	2	0	2
3-Nov-07	2	0	10	12
4-Nov-07	12	1	0	11
5-Nov-07	11	2	0	9
6-Nov-07	9	0	0	9
7-Nov-07	9	1	0	8
8-Nov-07	8	0	0	8
9-Nov-07	8	0	0	8
10-Nov-07	8	1	0	7
11-Nov-07	7	1	0	6
12-Nov-07	6	2	0	4
13-Nov-07	4	1	0	3
14-Nov-07	3	1	10	12
15-Nov-07	10	2	0	8
16-Nov-07	8	3	0	5
17-Nov-07	5	1	0	4
18-Nov-07	4	3	0	1
19-Nov-07	1	2	10	9
20-Nov-07	9	2	0	7
21-Nov-07	7	0	0	7
22-Nov-07	7	1	0	6
23-Nov-07	6	1	0	5
24-Nov-07	5	2	0	3
25-Nov-07	3	1	10	12
26-Nov-07	12	0	0	12
27-Nov-07	12	0	0	12
28-Nov-07	12	0	0	12
29-Nov-07	12	1	0	11
30-Nov-07	11	0	0	11
01-Dec-07	11	0	0	11
02-Dec-07	11	0	0	11
03-Dec-07	11	2	0	9
04-Dec-07	9	1	0	8
05-Dec-07	8	0	0	8
06-Dec-07	8	2	0	6
07-Dec-07	6	2	0	4
08-Dec-07	4	3	0	1
09-Dec-07	1	0	10	11
10-Dec-07	11	0	0	11
11-Dec-07	11	3	0	8
12-Dec-07	8	1	0	7
13-Dec-07	7	0	0	7
14-Dec-07	7	2	0	5

Item : 19014006632				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	5	0	0	5
16-Dec-07	5	2	0	3
17-Dec-07	3	0	0	3
18-Dec-07	3	2	10	11
19-Dec-07	11	0	0	11
20-Dec-07	11	1	0	10
21-Dec-07	10	0	0	10
22-Dec-07	10	0	0	10
23-Dec-07	10	0	0	10
24-Dec-07	10	0	0	10
25-Dec-07	10	0	0	10
26-Dec-07	10	0	0	10
27-Dec-07	10	1	0	9
28-Dec-07	9	2	0	7
29-Dec-07	7	0	0	7
30-Dec-07	7	0	0	7
31-Dec-07	7	1	0	6
1-Jan-08	6	0	0	6
2-Jan-08	6	0	0	6
3-Jan-08	6	0	0	6
4-Jan-08	6	1	0	5
5-Jan-08	5	1	0	4
6-Jan-08	4	0	0	4
7-Jan-08	4	1	0	3
8-Jan-08	3	1	10	12
9-Jan-08	12	2	0	10
10-Jan-08	10	0	0	10
11-Jan-08	10	0	0	10
12-Jan-08	10	1	0	9
13-Jan-08	9	1	0	8
14-Jan-08	8	1	0	7
15-Jan-08	7	2	0	5
16-Jan-08	5	2	0	3
17-Jan-08	3	2	10	11
18-Jan-08	11	0	0	11
19-Jan-08	11	2	0	9
20-Jan-08	9	0	0	9
21-Jan-08	9	2	0	7
22-Jan-08	7	3	0	4
23-Jan-08	4	1	0	3
Total				636
Rata - Rata Persediaan/ Minggu				53

Tabel L3.9

Persediaan Rata – Rata 19014140640

Item : 19014140640				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	6	0	0	6
2-Nov-07	6	0	0	6
3-Nov-07	6	0	0	6
4-Nov-07	6	0	0	6
5-Nov-07	6	0	0	6
6-Nov-07	6	0	0	6
7-Nov-07	6	0	0	6
8-Nov-07	6	0	0	6
9-Nov-07	6	0	0	6
10-Nov-07	6	0	0	6
11-Nov-07	6	0	0	6
12-Nov-07	6	0	0	6
13-Nov-07	6	0	0	6
14-Nov-07	6	0	0	6
15-Nov-07	6	0	0	6
16-Nov-07	6	0	0	6
17-Nov-07	6	0	0	6
18-Nov-07	6	0	0	6
19-Nov-07	6	0	0	6
20-Nov-07	6	1	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	1	0	4
23-Nov-07	4	0	0	4
24-Nov-07	4	0	0	4
25-Nov-07	4	1	0	3
26-Nov-07	3	0	0	3
27-Nov-07	3	0	0	3
28-Nov-07	3	1	0	2
29-Nov-07	2	2	0	0
30-Nov-07	0	0	5	5
01-Dec-07	5	0	0	5
02-Dec-07	5	2	0	3
03-Dec-07	3	0	0	3
04-Dec-07	3	0	0	3
05-Dec-07	3	0	0	3
06-Dec-07	3	0	0	3
07-Dec-07	3	0	0	3
08-Dec-07	3	3	0	0
09-Dec-07	0	2	5	3
10-Dec-07	3	0	0	3
11-Dec-07	3	0	0	3
12-Dec-07	3	0	0	3
13-Dec-07	3	1	0	2
14-Dec-07	2	1	0	1

Item : 19014140640				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	1	0	5	6
16-Dec-07	6	0	0	6
17-Dec-07	6	0	0	6
18-Dec-07	6	2	0	4
19-Dec-07	4	0	0	4
20-Dec-07	4	0	0	4
21-Dec-07	4	1	0	3
22-Dec-07	3	0	0	3
23-Dec-07	3	0	0	3
24-Dec-07	3	1	0	2
25-Dec-07	2	0	0	2
26-Dec-07	2	0	0	2
27-Dec-07	2	0	0	2
28-Dec-07	2	0	0	2
29-Dec-07	2	2	0	0
30-Dec-07	0	3	5	2
31-Dec-07	2	0	0	2
1-Jan-08	2	0	0	2
2-Jan-08	2	0	0	2
3-Jan-08	2	2	0	0
4-Jan-08	0	0	5	5
5-Jan-08	5	3	0	2
6-Jan-08	2	2	0	0
7-Jan-08	0	2	5	3
8-Jan-08	3	0	0	3
9-Jan-08	3	0	0	3
10-Jan-08	3	0	0	3
11-Jan-08	3	1	0	2
12-Jan-08	2	0	0	2
13-Jan-08	2	0	0	2
14-Jan-08	2	0	0	2
15-Jan-08	2	0	0	2
16-Jan-08	2	0	0	2
17-Jan-08	2	0	0	2
18-Jan-08	2	0	0	2
19-Jan-08	2	1	0	1
20-Jan-08	1	1	5	5
21-Jan-08	5	0	0	5
22-Jan-08	5	0	0	5
23-Jan-08	5	0	0	5
Total				303
Rata - Rata Persediaan/ Minggu				25.25

Tabel L3.10

Persediaan Rata – Rata 19014106080

Item : 19014106080				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	8	2	0	6
2-Nov-07	6	2	0	4
3-Nov-07	4	1	0	3
4-Nov-07	3	0	0	3
5-Nov-07	3	1	0	2
6-Nov-07	2	1	5	6
7-Nov-07	6	0	0	6
8-Nov-07	6	2	0	4
9-Nov-07	4	0	0	4
10-Nov-07	4	0	0	4
11-Nov-07	4	1	0	3
12-Nov-07	3	0	0	3
13-Nov-07	3	1	0	2
14-Nov-07	2	1	5	6
15-Nov-07	6	0	0	6
16-Nov-07	6	1	0	5
17-Nov-07	5	2	0	3
18-Nov-07	3	1	0	2
19-Nov-07	2	0	0	2
20-Nov-07	2	1	5	6
21-Nov-07	6	0	0	6
22-Nov-07	6	1	0	5
23-Nov-07	5	0	0	5
24-Nov-07	5	0	0	5
25-Nov-07	5	1	0	4
26-Nov-07	4	0	0	4
27-Nov-07	4	0	0	4
28-Nov-07	4	1	0	3
29-Nov-07	3	2	0	1
30-Nov-07	1	0	5	6
01-Dec-07	6	0	0	6
02-Dec-07	6	2	0	4
03-Dec-07	4	0	0	4
04-Dec-07	4	2	0	2
05-Dec-07	2	1	5	6
06-Dec-07	6	0	0	6
07-Dec-07	6	0	0	6
08-Dec-07	6	0	0	6
09-Dec-07	6	0	0	6
10-Dec-07	6	1	0	5
11-Dec-07	5	0	0	5
12-Dec-07	5	0	0	5
13-Dec-07	5	1	0	4
14-Dec-07	4	1	0	3

Item : 19014106080				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	3	0	0	3
16-Dec-07	3	0	0	3
17-Dec-07	3	0	0	3
18-Dec-07	3	2	0	1
19-Dec-07	1	0	5	6
20-Dec-07	6	0	0	6
21-Dec-07	6	1	0	5
22-Dec-07	5	0	0	5
23-Dec-07	5	0	0	5
24-Dec-07	5	1	0	4
25-Dec-07	4	0	0	4
26-Dec-07	4	2	0	2
27-Dec-07	2	0	5	7
28-Dec-07	7	0	0	7
29-Dec-07	7	1	0	6
30-Dec-07	6	2	0	4
31-Dec-07	4	0	0	4
1-Jan-08	4	0	0	4
2-Jan-08	4	1	0	3
3-Jan-08	3	2	0	1
4-Jan-08	1	0	5	6
5-Jan-08	6	0	0	6
6-Jan-08	6	0	0	6
7-Jan-08	6	0	0	6
8-Jan-08	6	0	0	6
9-Jan-08	6	0	0	6
10-Jan-08	6	0	0	6
11-Jan-08	6	1	0	5
12-Jan-08	5	0	0	5
13-Jan-08	5	2	0	3
14-Jan-08	3	0	0	3
15-Jan-08	3	0	0	3
16-Jan-08	3	1	0	2
17-Jan-08	2	0	0	2
18-Jan-08	2	0	0	2
19-Jan-08	2	1	0	1
20-Jan-08	1	1	5	5
21-Jan-08	5	0	0	5
22-Jan-08	5	0	0	5
23-Jan-08	5	2	0	3
Total				360
Rata - Rata Persediaan/ Minggu				30

Tabel L3.11

Persediaan Rata – Rata 19014132645

Item : 19014132645				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5
2-Nov-07	5	0	0	5
3-Nov-07	5	0	0	5
4-Nov-07	5	0	0	5
5-Nov-07	5	0	0	5
6-Nov-07	5	0	0	5
7-Nov-07	5	0	0	5
8-Nov-07	5	0	0	5
9-Nov-07	5	0	0	5
10-Nov-07	5	0	0	5
11-Nov-07	5	1	0	4
12-Nov-07	4	0	0	4
13-Nov-07	4	0	0	4
14-Nov-07	4	0	0	4
15-Nov-07	4	0	0	4
16-Nov-07	4	1	0	3
17-Nov-07	3	0	0	3
18-Nov-07	3	1	0	2
19-Nov-07	2	0	0	2
20-Nov-07	2	0	0	2
21-Nov-07	2	0	0	2
22-Nov-07	2	1	0	1
23-Nov-07	1	2	5	4
24-Nov-07	4	0	0	4
25-Nov-07	4	1	0	3
26-Nov-07	3	0	0	3
27-Nov-07	3	2	0	1
28-Nov-07	1	1	5	5
29-Nov-07	5	2	0	3
30-Nov-07	3	0	0	3
01-Dec-07	3	0	0	3
02-Dec-07	3	2	0	1
03-Dec-07	1	0	5	6
04-Dec-07	6	0	0	6
05-Dec-07	6	0	0	6
06-Dec-07	6	0	0	6
07-Dec-07	6	0	0	6
08-Dec-07	6	0	0	6
09-Dec-07	6	2	0	4
10-Dec-07	4	1	0	3
11-Dec-07	3	1	0	2
12-Dec-07	2	2	0	0
13-Dec-07	0	1	5	4
14-Dec-07	4	1	0	3

Item : 19014132645				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	3	0	0	3
16-Dec-07	3	0	0	3
17-Dec-07	3	0	0	3
18-Dec-07	3	1	0	2
19-Dec-07	2	0	0	2
20-Dec-07	2	0	0	2
21-Dec-07	2	1	0	1
22-Dec-07	1	0	5	6
23-Dec-07	6	0	0	6
24-Dec-07	6	0	0	6
25-Dec-07	6	0	0	6
26-Dec-07	6	0	0	6
27-Dec-07	6	0	0	6
28-Dec-07	6	0	0	6
29-Dec-07	6	1	0	5
30-Dec-07	5	0	0	5
31-Dec-07	5	0	0	5
1-Jan-08	5	0	0	5
2-Jan-08	5	0	0	5
3-Jan-08	5	2	0	3
4-Jan-08	3	0	0	3
5-Jan-08	3	0	0	3
6-Jan-08	3	2	0	1
7-Jan-08	1	0	5	6
8-Jan-08	6	0	0	6
9-Jan-08	6	0	0	6
10-Jan-08	6	0	0	6
11-Jan-08	6	1	0	5
12-Jan-08	5	0	0	5
13-Jan-08	5	2	0	3
14-Jan-08	3	0	0	3
15-Jan-08	3	1	0	2
16-Jan-08	2	1	0	1
17-Jan-08	1	0	5	6
18-Jan-08	6	0	0	6
19-Jan-08	6	0	0	6
20-Jan-08	6	0	0	6
21-Jan-08	6	0	0	6
22-Jan-08	6	0	0	6
23-Jan-08	6	0	0	6
Total				345
Rata - Rata Persediaan/ Minggu				28.75

Tabel L3.12

Persediaan Rata – Rata 19014006588

Item : 19014006588				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	12	6	0	6
2-Nov-07	6	4	0	2
3-Nov-07	2	2	20	20
4-Nov-07	20	3	0	17
5-Nov-07	17	2	0	15
6-Nov-07	15	3	0	12
7-Nov-07	12	2	0	10
8-Nov-07	10	3	0	7
9-Nov-07	7	2	0	5
10-Nov-07	5	2	0	3
11-Nov-07	3	2	20	21
12-Nov-07	21	2	0	19
13-Nov-07	19	3	0	16
14-Nov-07	16	0	0	16
15-Nov-07	16	5	0	11
16-Nov-07	11	3	0	8
17-Nov-07	8	8	0	0
18-Nov-07	0	2	20	18
19-Nov-07	18	2	0	16
20-Nov-07	16	2	0	14
21-Nov-07	14	7	0	7
22-Nov-07	7	3	0	4
23-Nov-07	4	3	0	1
24-Nov-07	1	5	20	16
25-Nov-07	16	2	0	14
26-Nov-07	14	0	0	14
27-Nov-07	14	2	0	12
28-Nov-07	12	1	0	11
29-Nov-07	11	2	0	9
30-Nov-07	9	5	0	4
01-Dec-07	4	2	0	2
02-Dec-07	2	3	20	19
03-Dec-07	19	3	0	16
04-Dec-07	16	5	0	11
05-Dec-07	11	2	0	9
06-Dec-07	9	5	0	4
07-Dec-07	4	3	0	1
08-Dec-07	1	6	0	-5
09-Dec-07	-5	4	20	11
10-Dec-07	11	2	0	9
11-Dec-07	9	5	0	4
12-Dec-07	4	2	0	2
13-Dec-07	0	1	20	19
14-Dec-07	19	3	0	16

Item : 19014006588				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	16	3	0	13
16-Dec-07	13	5	0	8
17-Dec-07	8	2	0	6
18-Dec-07	6	1	0	5
19-Dec-07	5	1	0	4
20-Dec-07	18	1	0	17
21-Dec-07	17	1	0	16
22-Dec-07	16	2	0	14
23-Dec-07	14	2	0	12
24-Dec-07	12	2	0	10
25-Dec-07	10	2	0	8
26-Dec-07	8	1	0	7
27-Dec-07	7	2	0	5
28-Dec-07	5	2	0	3
29-Dec-07	3	4	20	19
30-Dec-07	19	2	0	17
31-Dec-07	17	2	0	15
1-Jan-08	15	1	0	14
2-Jan-08	14	1	0	13
3-Jan-08	13	3	0	10
4-Jan-08	10	5	0	5
5-Jan-08	5	1	0	4
6-Jan-08	4	2	0	2
7-Jan-08	2	2	20	20
8-Jan-08	20	4	0	16
9-Jan-08	16	4	0	12
10-Jan-08	12	2	0	10
11-Jan-08	10	1	0	9
12-Jan-08	9	1	0	8
13-Jan-08	8	0	0	8
14-Jan-08	8	0	0	8
15-Jan-08	8	1	0	7
16-Jan-08	7	1	0	6
17-Jan-08	6	0	0	6
18-Jan-08	6	0	0	6
19-Jan-08	6	0	0	6
20-Jan-08	6	0	0	6
21-Jan-08	6	0	0	6
22-Jan-08	6	0	0	6
23-Jan-08	6	0	0	6
Total				819
Rata - Rata Persediaan/ Minggu				68.25

Tabel L3.13

Persediaan Rata – Rata 19014006700

Item : 19014006700				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5
2-Nov-07	5	0	0	5
3-Nov-07	5	0	0	5
4-Nov-07	5	0	0	5
5-Nov-07	5	0	0	5
6-Nov-07	5	0	0	5
7-Nov-07	5	1	0	4
8-Nov-07	4	0	0	4
9-Nov-07	4	0	0	4
10-Nov-07	4	0	0	4
11-Nov-07	4	2	0	2
12-Nov-07	2	0	0	2
13-Nov-07	2	0	0	2
14-Nov-07	2	0	0	2
15-Nov-07	2	0	0	2
16-Nov-07	2	0	0	2
17-Nov-07	2	2	0	0
18-Nov-07	0	0	5	5
19-Nov-07	5	0	0	5
20-Nov-07	5	1	0	4
21-Nov-07	4	0	0	4
22-Nov-07	4	1	0	3
23-Nov-07	3	1	0	2
24-Nov-07	2	0	0	2
25-Nov-07	2	0	0	2
26-Nov-07	2	1	0	1
27-Nov-07	1	0	5	6
28-Nov-07	6	1	0	5
29-Nov-07	5	0	0	5
30-Nov-07	5	0	0	5
01-Dec-07	5	1	0	4
02-Dec-07	4	0	0	4
03-Dec-07	4	0	0	4
04-Dec-07	4	0	0	4
05-Dec-07	4	0	0	4
06-Dec-07	4	0	0	4
07-Dec-07	4	0	0	4
08-Dec-07	4	1	0	3
09-Dec-07	3	0	0	3
10-Dec-07	3	0	0	3
11-Dec-07	3	0	0	3
12-Dec-07	3	1	0	2
13-Dec-07	2	0	0	2
14-Dec-07	2	0	0	2

Item : 19014006700				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	2	2	0	0
16-Dec-07	0	0	5	5
17-Dec-07	5	0	0	5
18-Dec-07	5	1	0	4
19-Dec-07	4	1	0	3
20-Dec-07	3	1	0	2
21-Dec-07	2	1	0	1
22-Dec-07	1	0	5	6
23-Dec-07	6	0	0	6
24-Dec-07	6	0	0	6
25-Dec-07	6	0	0	6
26-Dec-07	6	0	0	6
27-Dec-07	6	1	0	5
28-Dec-07	5	0	0	5
29-Dec-07	5	0	0	5
30-Dec-07	5	0	0	5
31-Dec-07	5	0	0	5
1-Jan-08	5	1	0	4
2-Jan-08	4	0	0	4
3-Jan-08	4	0	0	4
4-Jan-08	4	1	0	3
5-Jan-08	3	0	0	3
6-Jan-08	3	0	0	3
7-Jan-08	3	2	0	1
8-Jan-08	1	2	5	4
9-Jan-08	4	1	0	3
10-Jan-08	3	0	0	3
11-Jan-08	3	1	0	2
12-Jan-08	2	0	0	2
13-Jan-08	2	1	0	1
14-Jan-08	1	0	5	6
15-Jan-08	6	0	0	6
16-Jan-08	6	0	0	6
17-Jan-08	6	0	0	6
18-Jan-08	6	0	0	6
19-Jan-08	6	0	0	6
20-Jan-08	6	0	0	6
21-Jan-08	6	0	0	6
22-Jan-08	6	0	0	6
23-Jan-08	6	0	0	6
Total				325
Rata - Rata Persediaan/ Minggu				27.0833333

Tabel L3.14

Persediaan Rata – Rata 19014140633

Item : 19014140633				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5
2-Nov-07	5	0	0	5
3-Nov-07	5	1	0	4
4-Nov-07	4	1	0	3
5-Nov-07	3	0	0	3
6-Nov-07	3	0	0	3
7-Nov-07	3	1	0	2
8-Nov-07	2	0	0	2
9-Nov-07	2	1	0	1
10-Nov-07	1	0	5	6
11-Nov-07	6	2	0	4
12-Nov-07	4	0	0	4
13-Nov-07	4	0	0	4
14-Nov-07	4	0	0	4
15-Nov-07	4	0	0	4
16-Nov-07	4	3	0	1
17-Nov-07	1	2	5	4
18-Nov-07	4	3	5	6
19-Nov-07	6	0	0	6
20-Nov-07	6	1	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	0	0	5
23-Nov-07	5	1	0	4
24-Nov-07	4	0	0	4
25-Nov-07	4	0	0	4
26-Nov-07	4	0	0	4
27-Nov-07	4	0	0	4
28-Nov-07	4	0	0	4
29-Nov-07	5	0	0	5
30-Nov-07	5	0	0	5
01-Dec-07	5	1	0	4
02-Dec-07	4	0	0	4
03-Dec-07	4	1	0	3
04-Dec-07	3	0	0	3
05-Dec-07	3	0	0	3
06-Dec-07	3	0	0	3
07-Dec-07	3	0	0	3
08-Dec-07	3	1	0	2
09-Dec-07	2	0	0	2
10-Dec-07	2	0	0	2
11-Dec-07	2	0	0	2
12-Dec-07	2	1	0	1
13-Dec-07	1	0	5	6
14-Dec-07	6	0	0	6

Item : 19014140633				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	6	0	0	6
16-Dec-07	6	0	5	11
17-Dec-07	11	0	0	11
18-Dec-07	11	0	0	11
19-Dec-07	11	0	0	11
20-Dec-07	3	1	0	2
21-Dec-07	2	1	0	1
22-Dec-07	1	0	5	6
23-Dec-07	6	0	0	6
24-Dec-07	6	1	0	5
25-Dec-07	5	0	0	5
26-Dec-07	5	0	0	5
27-Dec-07	6	1	0	5
28-Dec-07	5	0	0	5
29-Dec-07	5	1	0	4
30-Dec-07	4	0	0	4
31-Dec-07	4	1	0	3
1-Jan-08	3	0	0	3
2-Jan-08	3	0	0	3
3-Jan-08	4	0	0	4
4-Jan-08	4	0	0	4
5-Jan-08	4	0	0	4
6-Jan-08	4	0	0	4
7-Jan-08	4	2	0	2
8-Jan-08	2	0	5	7
9-Jan-08	7	0	0	7
10-Jan-08	3	0	0	3
11-Jan-08	3	1	0	2
12-Jan-08	2	0	0	2
13-Jan-08	2	1	0	1
14-Jan-08	1	0	5	6
15-Jan-08	6	0	0	6
16-Jan-08	6	1	0	5
17-Jan-08	6	0	0	6
18-Jan-08	6	0	0	6
19-Jan-08	6	1	0	5
20-Jan-08	5	0	0	5
21-Jan-08	5	0	0	5
22-Jan-08	5	0	0	5
23-Jan-08	5	0	0	5
Total				365
Rata - Rata Persediaan/ Minggu				30.41666667

Tabel L3.15

Persediaan Rata – Rata 19014113620

Item : 19014113620				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	10	0	0	10
2-Nov-07	10	0	0	10
3-Nov-07	10	3	0	7
4-Nov-07	7	0	0	7
5-Nov-07	7	1	0	6
6-Nov-07	6	3	0	3
7-Nov-07	3	0	10	13
8-Nov-07	13	2	0	11
9-Nov-07	11	1	0	10
10-Nov-07	10	3	0	7
11-Nov-07	7	2	0	5
12-Nov-07	5	0	0	5
13-Nov-07	5	3	0	2
14-Nov-07	2	3	10	9
15-Nov-07	9	0	0	9
16-Nov-07	9	0	0	9
17-Nov-07	9	2	0	7
18-Nov-07	7	0	0	7
19-Nov-07	7	0	0	7
20-Nov-07	7	1	0	6
21-Nov-07	6	0	0	6
22-Nov-07	6	2	0	4
23-Nov-07	4	1	0	3
24-Nov-07	3	0	10	13
25-Nov-07	13	2	0	11
26-Nov-07	11	1	0	10
27-Nov-07	10	0	0	10
28-Nov-07	10	0	0	10
29-Nov-07	10	0	0	10
30-Nov-07	10	4	0	6
01-Dec-07	6	1	0	5
02-Dec-07	5	3	0	2
03-Dec-07	2	1	10	11
04-Dec-07	11	2	0	9
05-Dec-07	9	0	0	9
06-Dec-07	9	3	0	6
07-Dec-07	6	0	0	6
08-Dec-07	6	3	0	3
09-Dec-07	3	3	10	10
10-Dec-07	10	2	0	8
11-Dec-07	8	2	0	6
12-Dec-07	6	1	0	5
13-Dec-07	5	2	0	3
14-Dec-07	3	3	10	10

Item : 19014113620				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	10	2	0	8
16-Dec-07	8	2	0	6
17-Dec-07	6	0	0	6
18-Dec-07	6	0	0	6
19-Dec-07	6	2	0	4
20-Dec-07	4	1	0	3
21-Dec-07	3	2	10	11
22-Dec-07	11	3	0	8
23-Dec-07	8	2	0	6
24-Dec-07	6	1	0	5
25-Dec-07	5	0	0	5
26-Dec-07	5	1	0	4
27-Dec-07	4	3	0	1
28-Dec-07	1	2	10	9
29-Dec-07	9	1	0	8
30-Dec-07	8	0	0	8
31-Dec-07	8	1	0	7
1-Jan-08	7	3	0	4
2-Jan-08	4	1	0	3
3-Jan-08	3	0	10	13
4-Jan-08	13	0	0	13
5-Jan-08	13	3	0	10
6-Jan-08	10	0	0	10
7-Jan-08	10	2	0	8
8-Jan-08	8	0	0	8
9-Jan-08	8	2	0	6
10-Jan-08	6	0	0	6
11-Jan-08	6	3	0	3
12-Jan-08	3	2	10	11
13-Jan-08	11	1	0	10
14-Jan-08	10	0	0	10
15-Jan-08	10	3	0	7
16-Jan-08	7	1	0	6
17-Jan-08	6	0	0	6
18-Jan-08	6	0	0	6
19-Jan-08	6	1	0	5
20-Jan-08	5	3	0	2
21-Jan-08	2	3	10	9
22-Jan-08	9	1	0	8
23-Jan-08	8	2	0	6
Total				601
Rata - Rata Persediaan/ Minggu				50.08333

Tabel L3.16

Persediaan Rata – Rata 73893004004

Item : 73893004004				
Supplier : Setrasari				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	10	0	0	10
2-Nov-07	10	0	0	10
3-Nov-07	10	2	0	8
4-Nov-07	8	0	0	8
5-Nov-07	8	1	0	7
6-Nov-07	7	2	0	5
7-Nov-07	5	0	0	5
8-Nov-07	5	2	0	3
9-Nov-07	3	1	0	2
10-Nov-07	2	0	0	2
11-Nov-07	2	2	0	0
12-Nov-07	0	0	5	5
13-Nov-07	5	0	0	5
14-Nov-07	5	0	0	5
15-Nov-07	5	1	0	4
16-Nov-07	4	1	0	3
17-Nov-07	3	2	0	1
18-Nov-07	1	0	5	6
19-Nov-07	6	0	0	6
20-Nov-07	6	1	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	2	0	3
23-Nov-07	3	1	0	2
24-Nov-07	2	0	0	2
25-Nov-07	2	2	0	0
26-Nov-07	0	0	5	5
27-Nov-07	5	0	0	5
28-Nov-07	5	0	0	5
29-Nov-07	5	0	0	5
30-Nov-07	5	4	0	1
01-Dec-07	1	0	5	6
02-Dec-07	6	0	0	6
03-Dec-07	6	0	0	6
04-Dec-07	6	0	0	6
05-Dec-07	6	0	0	6
06-Dec-07	6	3	0	3
07-Dec-07	3	0	0	3
08-Dec-07	3	0	0	3
09-Dec-07	3	0	0	3
10-Dec-07	3	1	0	2
11-Dec-07	2	0	0	2
12-Dec-07	2	0	0	2
13-Dec-07	2	2	0	0
14-Dec-07	0	0	5	5

Item : 73893004004				
Supplier : Setrasari				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	5	2	0	3
16-Dec-07	3	0	0	3
17-Dec-07	3	0	0	3
18-Dec-07	3	0	0	3
19-Dec-07	3	0	0	3
20-Dec-07	3	1	0	2
21-Dec-07	2	2	0	0
22-Dec-07	0	0	5	5
23-Dec-07	5	0	0	5
24-Dec-07	5	1	0	4
25-Dec-07	4	0	0	4
26-Dec-07	4	0	0	4
27-Dec-07	4	0	0	4
28-Dec-07	4	2	0	2
29-Dec-07	2	1	0	1
30-Dec-07	1	0	5	6
31-Dec-07	6	1	0	5
1-Jan-08	5	0	0	5
2-Jan-08	5	0	0	5
3-Jan-08	5	0	0	5
4-Jan-08	5	0	0	5
5-Jan-08	5	3	0	2
6-Jan-08	2	0	0	2
7-Jan-08	2	1	0	1
8-Jan-08	1	0	5	6
9-Jan-08	6	0	0	6
10-Jan-08	6	0	0	6
11-Jan-08	6	3	0	3
12-Jan-08	3	0	0	3
13-Jan-08	3	1	0	2
14-Jan-08	2	0	0	2
15-Jan-08	2	0	0	2
16-Jan-08	2	0	0	2
17-Jan-08	2	0	0	2
18-Jan-08	2	0	0	2
19-Jan-08	2	1	0	1
20-Jan-08	1	3	5	3
21-Jan-08	3	0	0	3
22-Jan-08	3	0	0	3
23-Jan-08	3	0	0	3
Total				317
Rata - Rata Persediaan/ Minggu				26.417

Tabel L3.17

Persediaan Rata – Rata 19014106202

Item : 19014106202				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5
2-Nov-07	5	0	0	5
3-Nov-07	5	0	0	5
4-Nov-07	5	0	0	5
5-Nov-07	5	0	0	5
6-Nov-07	5	0	0	5
7-Nov-07	5	0	0	5
8-Nov-07	5	0	0	5
9-Nov-07	5	0	0	5
10-Nov-07	5	0	0	5
11-Nov-07	5	0	0	5
12-Nov-07	5	0	0	5
13-Nov-07	5	0	0	5
14-Nov-07	5	0	0	5
15-Nov-07	5	0	0	5
16-Nov-07	5	0	0	5
17-Nov-07	5	0	0	5
18-Nov-07	5	0	0	5
19-Nov-07	5	0	0	5
20-Nov-07	5	0	0	5
21-Nov-07	5	0	0	5
22-Nov-07	5	0	0	5
23-Nov-07	5	0	0	5
24-Nov-07	5	0	0	5
25-Nov-07	5	0	0	5
26-Nov-07	5	0	0	5
27-Nov-07	5	0	0	5
28-Nov-07	5	0	0	5
29-Nov-07	5	2	0	3
30-Nov-07	3	0	0	3
01-Dec-07	3	0	0	3
02-Dec-07	3	0	0	3
03-Dec-07	3	0	0	3
04-Dec-07	3	2	0	1
05-Dec-07	1	0	5	6
06-Dec-07	6	0	0	6
07-Dec-07	6	0	0	6
08-Dec-07	6	0	0	6
09-Dec-07	6	0	0	6
10-Dec-07	6	0	0	6
11-Dec-07	6	0	0	6
12-Dec-07	6	0	0	6
13-Dec-07	6	2	0	4
14-Dec-07	4	0	0	4

Item : 19014106202				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	4	0	0	4
16-Dec-07	4	0	0	4
17-Dec-07	4	0	0	4
18-Dec-07	4	0	0	4
19-Dec-07	4	1	0	3
20-Dec-07	3	0	0	3
21-Dec-07	3	2	0	1
22-Dec-07	1	0	5	6
23-Dec-07	6	0	0	6
24-Dec-07	6	1	0	5
25-Dec-07	5	0	0	5
26-Dec-07	5	0	0	5
27-Dec-07	4	0	0	4
28-Dec-07	4	2	0	2
29-Dec-07	2	1	0	1
30-Dec-07	1	0	5	6
31-Dec-07	6	0	0	6
1-Jan-08	6	1	0	5
2-Jan-08	5	0	0	5
3-Jan-08	5	0	0	5
4-Jan-08	5	0	0	5
5-Jan-08	5	3	0	2
6-Jan-08	2	0	0	2
7-Jan-08	2	0	0	2
8-Jan-08	2	0	0	2
9-Jan-08	2	0	0	2
10-Jan-08	2	0	0	2
11-Jan-08	2	3	5	4
12-Jan-08	4	0	0	4
13-Jan-08	4	1	0	3
14-Jan-08	3	0	0	3
15-Jan-08	3	0	0	3
16-Jan-08	3	0	0	3
17-Jan-08	3	0	0	3
18-Jan-08	3	0	0	3
19-Jan-08	3	1	0	2
20-Jan-08	2	1	0	1
21-Jan-08	1	0	5	6
22-Jan-08	6	0	0	6
23-Jan-08	6	0	0	6
Total				360
Rata - Rata Persediaan/ Minggu				30

Tabel L3.18

Persediaan Rata – Rata 19014114641

Item :19014114641				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5
2-Nov-07	5	0	0	5
3-Nov-07	5	0	0	5
4-Nov-07	5	0	0	5
5-Nov-07	5	0	0	5
6-Nov-07	5	0	0	5
7-Nov-07	5	0	0	5
8-Nov-07	5	0	0	5
9-Nov-07	5	0	0	5
10-Nov-07	5	0	0	5
11-Nov-07	5	0	0	5
12-Nov-07	5	0	0	5
13-Nov-07	5	0	0	5
14-Nov-07	5	0	0	5
15-Nov-07	5	0	0	5
16-Nov-07	5	1	0	4
17-Nov-07	4	0	0	4
18-Nov-07	4	0	0	4
19-Nov-07	4	0	0	4
20-Nov-07	4	0	0	4
21-Nov-07	4	0	0	4
22-Nov-07	4	0	0	4
23-Nov-07	4	0	0	4
24-Nov-07	4	1	0	3
25-Nov-07	3	1	0	2
26-Nov-07	2	0	0	2
27-Nov-07	2	0	0	2
28-Nov-07	2	0	0	2
29-Nov-07	5	0	0	5
30-Nov-07	5	0	0	5
01-Dec-07	5	0	0	5
02-Dec-07	5	0	0	5
03-Dec-07	5	0	0	5
04-Dec-07	5	1	0	4
05-Dec-07	4	0	5	9
06-Dec-07	6	0	0	6
07-Dec-07	6	0	0	6
08-Dec-07	6	1	0	5
09-Dec-07	5	0	0	5
10-Dec-07	5	1	0	4
11-Dec-07	4	0	0	4
12-Dec-07	4	0	0	4
13-Dec-07	6	0	0	6
14-Dec-07	6	0	0	6

Item :19014114641				
Supplier : Eukanuba				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
15-Dec-07	6	0	0	6
16-Dec-07	6	0	0	6
17-Dec-07	6	0	0	6
18-Dec-07	6	0	0	6
19-Dec-07	6	1	0	5
20-Dec-07	3	0	0	3
21-Dec-07	3	2	0	1
22-Dec-07	1	0	5	6
23-Dec-07	6	1	0	5
24-Dec-07	5	1	0	4
25-Dec-07	4	0	0	4
26-Dec-07	4	0	0	4
27-Dec-07	4	0	0	4
28-Dec-07	4	2	0	2
29-Dec-07	2	1	0	1
30-Dec-07	1	0	5	6
31-Dec-07	6	0	0	6
1-Jan-08	6	1	0	5
2-Jan-08	5	0	0	5
3-Jan-08	5	0	0	5
4-Jan-08	5	0	0	5
5-Jan-08	5	3	0	2
6-Jan-08	2	0	0	2
7-Jan-08	2	0	0	2
8-Jan-08	2	0	0	2
9-Jan-08	2	0	0	2
10-Jan-08	2	0	0	2
11-Jan-08	2	1	5	6
12-Jan-08	6	0	0	6
13-Jan-08	6	1	0	5
14-Jan-08	5	0	0	5
15-Jan-08	5	0	0	5
16-Jan-08	5	0	0	5
17-Jan-08	3	0	0	3
18-Jan-08	3	0	0	3
19-Jan-08	3	0	0	3
20-Jan-08	3	0	0	3
21-Jan-08	3	0	5	8
22-Jan-08	8	0	0	8
23-Jan-08	8	0	0	8
Total				377
Rata - Rata Persediaan/ Minggu				31.417

Tabel L3.19

Persediaan Rata – Rata 8994571004777

Item : 7896642901439					Item : 7896642901439				
Supplier : Setrasari					Supplier : Setrasari				
Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir	Tanggal	Inv. Awal	Terjual	Barang datang	Inv. Akhir
1-Nov-07	5	0	0	5	15-Dec-07	4	0	0	4
2-Nov-07	5	2	0	3	16-Dec-07	4	0	0	4
3-Nov-07	3	0	0	3	17-Dec-07	4	0	0	4
4-Nov-07	3	0	0	3	18-Dec-07	4	1	0	3
5-Nov-07	3	2	0	1	19-Dec-07	3	0	0	3
6-Nov-07	1	0	5	6	20-Dec-07	3	0	0	3
7-Nov-07	6	0	0	6	21-Dec-07	3	2	0	1
8-Nov-07	6	0	0	6	22-Dec-07	1	0	5	6
9-Nov-07	6	0	0	6	23-Dec-07	6	1	0	5
10-Nov-07	6	1	0	5	24-Dec-07	5	1	0	4
11-Nov-07	5	0	0	5	25-Dec-07	4	0	0	4
12-Nov-07	5	1	0	4	26-Dec-07	4	0	0	4
13-Nov-07	4	1	0	3	27-Dec-07	4	0	0	4
14-Nov-07	3	1	0	2	28-Dec-07	4	2	0	2
15-Nov-07	2	0	0	2	29-Dec-07	2	1	0	1
16-Nov-07	2	1	0	1	30-Dec-07	1	0	5	6
17-Nov-07	1	2	5	4	31-Dec-07	6	0	0	6
18-Nov-07	4	0	0	4	1-Jan-08	6	1	0	5
19-Nov-07	4	1	0	3	2-Jan-08	5	0	0	5
20-Nov-07	3	0	0	3	3-Jan-08	5	0	0	5
21-Nov-07	3	0	0	3	4-Jan-08	5	0	0	5
22-Nov-07	3	2	0	1	5-Jan-08	5	3	0	2
23-Nov-07	1	0	5	6	6-Jan-08	2	0	0	2
24-Nov-07	6	1	0	5	7-Jan-08	2	0	0	2
25-Nov-07	5	1	0	4	8-Jan-08	2	0	0	2
26-Nov-07	4	0	0	4	9-Jan-08	2	0	0	2
27-Nov-07	4	0	0	4	10-Jan-08	2	0	0	2
28-Nov-07	4	0	0	4	11-Jan-08	2	1	0	1
29-Nov-07	4	0	0	4	12-Jan-08	1	0	5	6
30-Nov-07	4	0	0	4	13-Jan-08	6	1	0	5
01-Dec-07	4	0	0	4	14-Jan-08	5	1	0	4
02-Dec-07	4	0	0	4	15-Jan-08	4	0	0	4
03-Dec-07	4	3	0	1	16-Jan-08	4	0	0	4
04-Dec-07	1	1	5	5	17-Jan-08	4	0	0	4
05-Dec-07	5	0	0	5	18-Jan-08	4	1	0	3
06-Dec-07	5	0	0	5	19-Jan-08	3	0	0	3
07-Dec-07	5	0	0	5	20-Jan-08	3	1	0	2
08-Dec-07	5	1	0	4	21-Jan-08	2	2	0	0
09-Dec-07	4	0	0	4	22-Jan-08	0	0	5	5
10-Dec-07	4	1	0	3	23-Jan-08	5	0	0	5
11-Dec-07	3	2	0	1					
12-Dec-07	1	0	5	6					
13-Dec-07	6	0	0	6					
14-Dec-07	6	2	0	4					
					Total				
					Rata - Rata Persediaan/ Minggu				
					313				
					26.0833333				

Contoh Perhitungan : 8994571004777

Rata – rata persediaan/minggu = Total/12minggu = 4148/12 = 345,67 unit

NILAI BARANG YANG DISIMPAN

Persediaan yang ada mempunyai nilai simpannya. Rata – rata persediaan diambil dari rata – rata persediaan yang ada di dalam gudang dan juga etalase per minggu.

Tabel L3.1

Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/minggu)
1	8994571004777	MA 21 - OPTIMA L&R ADULT 18.14 KG	345,67	Zak	Rp204.000	Rp70.516.680
2	8994571004760	MA 21 - OPTIMA L&R PUPPY 18.14 KG	366,333	Zak	Rp216.000	Rp79.127.928
3	19014006687	MA 07 - EUKA NATURAL L&R PUPPY 15.87KG	38,25	Zak	Rp387.875	Rp14.836.219
4	19014113644	MA 07 - EUKA PUPPY SMALL BREED 15KG	38,5	Zak	Rp369.750	Rp14.235.375
5	7896642900500	MA 13 - DOG FOOD CROC ORIGINAL 25 KG	37,75	Zak	Rp235.000	Rp8.871.250
6	19014113637	MA 07 - EUKA PUPPY SMALL BREED 7.5KG	41,33	Zak	Rp199.375	Rp8.240.169
7	19014006632	MA 07 - EUKA NATURAL L&R PUPPY 6.8 KG	53	Zak	Rp199.375	Rp10.566.875
8	19014140640	MA 07 - EUKA PUPPY LARGE BREED 15 KG	25,25	Zak	Rp369.750	Rp9.336.188
9	19014106080	MK 07 - IAMS KITTEN 3.63 KG	30	Zak	Rp134.125	Rp4.023.750
10	19014132645	MA 07 - EUKA ADULT LARGE BREED 15 KG	28,75	Zak	Rp340.750	Rp9.796.563
11	19014006588	MA 07 - EUKA NATURAL L&R PUPPY 1.81 KG	68,25	Zak	Rp58.000	Rp3.958.500
12	19014006700	MA 07 - EUKA NATURAL L&R LARGE BREED ADULT 15 .8KG	27,083	Zak	Rp387.875	Rp10.504.819
13	19014140633	MA 07 - EUKA PUPPY LARGE BREED 7.5 KG	30,417	Zak	Rp199.375	Rp6.064.389
14	19014113620	MA 07 - EUKA PUPPY SMALL BREED 3KG	50,083	Zak	Rp94.250	Rp4.720.323
15	73893004004	MA 13 - DOG FOOD SUPREME ADULT 18 KG	26,417	Zak	Rp174.570	Rp4.611.616
16	19014106202	MK 07 - IAMS KITTEN 9.07 KG	30	Zak	Rp304.500	Rp9.135.000
17	19014114641	MA 07 - EUKA ADULT MEDIUM BREED 15 KG	31,417	Zak	Rp340.750	Rp10.705.343
18	7896642901439	MA 13 - CICLOS CROISSANCE PUP 15 KG	26,083	Zak	Rp230.000	Rp5.999.090
19	19014006656	MA 07 - EUKA NATURAL L&R ADULT LARGE BREED 6.8 KG	28,417	Zak	Rp199.375	Rp5.665.639
20	19014006694	MA 07 - EUKA NATURAL L&R ADULT MEDIUM BREED15.87KG	30,167	Zak	Rp326.250	Rp9.841.984

Tabel L3.1 Lanjutan
 Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/ minggu)
21	19014006595	MA 07 - EUKA NATURAL L&R ADULT 1.81KG	77,833	Zak	Rp58.000	Rp4.514.314
22	19014006649	MA 07 - EUKA NATURAL L&R ADULT MEDIUM BREED 6.8KG	23	Zak	Rp199.375	Rp4.585.625
23	7896642901392	MA 13 - CICLOS CROISSANCE 8 - 7.5 KG	29,083	Zak	Rp146.000	Rp4.246.118
24	7896642901767	MA 13 - CROC ORIGINAL 10.1 KG	25,33	Zak	Rp103.000	Rp2.608.990
25	19014267644	MA 07 - EUKA ADULT SMALL BREED 15KG	29,25	Zak	Rp311.750	Rp9.118.688
26	9310022702006	MA 29 - PEDIGREE BEEF ADULT 1.15 KG	48,167	Dus	Rp31.654	Rp1.524.678
27	19014109203	MK 07 - IAMS OCEAN FISH ADULT 9.07 KG	24,833	Zak	Rp304.500	Rp7.561.649
28	19014114634	MA 07 - EUKA ADULT MEDIUM BREED 7.5 KG	24	Zak	Rp166.750	Rp4.002.000
29	19014267637	MA 07 - EUKA ADULT SMALL BREED 7.5 KG	32,5	Zak	Rp166.750	Rp5.419.375
30	7896642901750	MA 13 - CROC BABY 10.1KG	26,583	Zak	Rp110.000	Rp2.924.130
31	19014230624	MK 07 - IAMS ADULT HAIRBALL CONTROL 3KG	36,67	Zak	Rp112.375	Rp4.120.791
32	19014301645	MA 07 - EUKA PREMIUM PERFORMANCE LARGE BREED15KG	27,917	Zak	Rp311.750	Rp8.703.125
33	9310022735806	MA 29 - PEDIGREE PUPPY 400g KALENG	44,25	Kaleng	Rp12.495	Rp552.904
34	19014109081	MK 07 - IAMS ORIGINAL WITH OCEAN FISH&RICE 3.63 KG	49,83	Zak	Rp112.375	Rp5.599.646
35	9310022701207	MA 29 - PEDIGREE CHICKEN 1.15 KG	45,5	Dus	Rp29.364	Rp1.336.062
36	9310022530708	MA 29 - PEDIGREE PUPPY CHICKEN & EGG KERING 1.5 KG	46	Dus	Rp34.153	Rp1.571.038
37	19014267620	MA 07 - EUKA ADULT SMALL BREED 3 KG	54,417	Zak	Rp87.000	Rp4.734.279
38	8853301140812	MK 29 - WHISKAS KITTEN 1.5 KG WT	52,167	Zak	Rp41.772	Rp2.179.120
39	9310022726804	MA 29 - PEDIGREE BEEF ADULT CAN 700 GR	47,083	Kaleng	Rp19.992	Rp941.283
40	6914973309807	MA 29 - PEDIGREE CHICKEN&EGG PUPPY 500GR	43,75	Zak	Rp14.161	Rp619.544
41	19014008230	MK 07 - IAMS KITTEN 1-12 MONTH POLLO FRANGO 7.5 KG	29,417	Zak	Rp224.750	Rp6.611.471
42	19014132638	MA 07 - EUKA ADULT LARGE BREED 7.5 KG	28,333	Zak	Rp166.750	Rp4.724.528
43	9310022530302	MA 29 - PEDIGREE BEEF ADULT 2 KG	56,25	Zak	Rp33.630	Rp1.891.688
44	9310022705502	MA 29 - PEDIGREE CHICKEN LIVER ADULT KERING 2KG	53,583	Zak	Rp33.630	Rp1.801.996
45	9300603830341	MK 13 - FRISKIES 3.5 KG OCEAN FISH ADULT	43,75	Zak	Rp77.500	Rp3.390.625

Tabel L3.1 Lanjutan
 Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/ minggu)
46	19014103645	MA 07 - EUKA PREMIUM PERFORMANCE 15KG	23,167	Zak	Rp369.750	Rp8.565.998
47	9300603830167	MK 13 - FRISKIES 1.5 KG TUNA & SARDINE ADULT	49,3	Zak	Rp36.500	Rp1.799.450
48	7896642901477	MA 13 - CICLOS ADULT 16/15 KG	19,083	Zak	Rp230.000	Rp4.389.090
49	19014125623	MK 07 - IAMS ADULT 1+ LAMB&RICE 3KG	42,917	Zak	Rp112.375	Rp4.822.798
50	6914973309708	MA 29 - PEDIGREE BEEF KERING DUS 500GR	43,833	Dus	Rp12.912	Rp565.972
51	19014105083	MK 07 - IAMS ORIGINAL WITH CHICKEN 3.63KG	51,83	Zak	Rp134.125	Rp6.951.699
52	8994571005682	MA 13 - SUPREME 1.2 KG CHICKEN KALENG	53,167	Kaleng	Rp21.000	Rp1.116.507
53	9300603830136	MK 13 - FRISKIES 1.5 KG OCEAN FISH FLAVOUR ADULT	46,33	Zak	Rp36.500	Rp1.691.045
54	8853301530057	MA 29 - PEDIGREE CHICKEN CHUNK SAUCE PUPPY 150GR	45,583	Kaleng	Rp4.582	Rp208.861
55	19014149636	MA 07 - EUKA ADULT SENIOR 7.5 KG	29,167	Zak	Rp199.375	Rp5.815.171
56	8853301140652	MK 29 - WHISKAS MACKEREL KERING 1.5KG	52,167	Zak	Rp39.745	Rp2.073.377
57	9311765025506	MA 21 - COUNTRY BEEF 20Kg	22,75	Zak	Rp198.250	Rp4.510.188
58	8994571005491	MA 13 - SUPREME 380GR LAMB	48,67	Kaleng	Rp7.600	Rp369.892
59	9310022866203	MK 29 - WHISKAS TUNA 1.5KG	44,083	Zak	Rp41.225	Rp1.817.322
60	8853301140799	MK 29 - WHISKAS OCEAN FISH KITTEN DUS 500GR	55,417	Dus	Rp16.812	Rp931.671
61	9310022530500	MA 29 - PEDIGREE BEEF ADULT 20KG	23,167	Zak	Rp272.323	Rp6.308.907
62	19014006663	MA 07 - EUKA NATURAL L&R ADULT REDUCE FAT 6.8 KG	17,5	Zak	Rp181.250	Rp3.171.875
63	19014125081	MK 07 - IAMS ADULT ORIGINAL W/ LAMB & RICE 3.63KG	33,833	Zak	Rp134.125	Rp4.537.851
64	19014301638	MA 07 - EUKA PREMIUM PERFORM LARGE BREED 7.5 KG	20,25	Zak	Rp166.750	Rp3.376.688
65	9310022866104	MK 29 - WHISKAS OCEAN FISH 1.5 KG	52,583	Zak	Rp41.225	Rp2.167.734
66	19014149629	MA 07 - EUKANUBA ADULT SENIOR 3KG	43,083	Zak	Rp94.250	Rp4.060.573
67	8994571005637	MA 13 - SUPREME 700GR LAMB KALENG	51,083	Kaleng	Rp12.000	Rp612.996
68	7896642901705	MA 13 - CICLOS ADULT 16 POTENCE 15 KG	16,75	Zak	Rp230.000	Rp3.852.500
69	7896642900234	MK 13 - CICLOS GATOS KITTEN 1 KG	28	Zak	Rp35.000	Rp980.000
70	19014105632	MK 07 - IAMS ADULT 1+ CHICKEN POLLO FRANGO 7.5KG	22	Zak	Rp224.750	Rp4.944.500

Tabel L3.1 Lanjutan
 Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/ minggu)
71	19014109630	MK 07 - IAMS ADULT OCEAN FISH 7.5 KG	34,083	Zak	Rp224.750	Rp7.660.154
72	9300603830112	MK 13 - FRISKIES 1.5 KG ADULT GOURMET	59,5	Zak	Rp36.500	Rp2.171.750
73	19014130627	MA 07 - EUKA PREMIUM PERFORMANCE 3 KG	30,417	Zak	Rp60.900	Rp1.852.395
74	9310022866500	MK 29 - WHISKAS TUNA FLAVOUR DUS 500 GR	42,583	Dus	Rp15.995	Rp681.115
75	8850124075659	MK 13 - FRISKIES KITTEN CHICKEN & FISH FLAVOUR 450	45,083	Zak	Rp14.600	Rp658.212
76	9300603830013	MK 13 - FRISKIES 500 GR GOURMET	53,583	Zak	Rp14.600	Rp782.312
77	9310022866401	MK 29 - WHISKAS OCEAN FISH DUS 500GR	55,667	Dus	Rp16.575	Rp922.681
78	8994571005484	MA 13 - SUPREME 380GR BEEF	48,083	Kaleng	Rp7.600	Rp365.431
79	8994571005620	MA 13 - SUPREME 700GR BEEF KALENG	59,417	Kaleng	Rp12.000	Rp713.004
80	9310022726903	MA 29 - PEDIGREE CHICKEN ADULT CAN 700GR	46,333	Kaleng	Rp19.686	Rp912.111
81	8853301400107	MK 29 - WHISKAS OCEAN FISH POCKET 3.5KG	46,917	Zak	Rp82.025	Rp3.848.367
82	8853301400084	MK 29 - WHISKAS TUNA FLAVOUR POCKET 3.5KG	37,417	Zak	Rp82.025	Rp3.069.129
83	8994571005644	MA 13 - SUPREME 700GR CHICKEN KALENG	57,333	Kaleng	Rp12.000	Rp687.996
84	19014112623	MA 07 - EUKA ADULT LIGHT 2.5 KG	53,833	Zak	Rp79.750	Rp4.293.182
85	8994571003695	MA 21 - COUNTRY PUPPY FORMULA 10Kg	15,25	Zak	Rp104.000	Rp1.586.000
86	8853301530019	MA 29 - PEDIGREE BEEF CHUNKS IN SAUCE ADULT 150GR	68,833	Kaleng	Rp4.512	Rp310.574
87	8994571005613	MA 13 - SUPREME PLUS PUPPY 380 GR	53	Kaleng	Rp8.250	Rp437.250
88	8853301300049	MA 29 - PEDIGREE ADULT BEEF 10 KG	14,833	Zak	Rp148.466	Rp2.202.196
89	9310022726408	MA 29 - PEDIGREE BEEF 400 G KALENG	43,667	Kaleng	Rp13.500	Rp589.505
90	9310768055947	MK 13 - SNAPPY TOM TUNA & CHUNKY SARDINES	56,5	Kaleng	Rp7.700	Rp435.050
91	9310022709203	MK 29 - WHISKAS MINCE BEEF CAN 400GR	65,417	Kaleng	Rp9.450	Rp618.191
92	8994571005699	MA 13 - SUPREME PLUS PUPPY FOR DOGS 1.2KG	52,833	Kaleng	Rp21.750	Rp1.149.118
93	9310022726606	MA 29 - PEDIGREE 5 MACAM DAGING 400g KALENG	61,583	Kaleng	Rp11.484	Rp707.219
94	8994571005668	MA 13 - SUPREME 1.2 KG BEEF KALENG	73,5	Kaleng	Rp21.000	Rp1.543.500
95	8853301400138	MK 29 - WHISKAS CHICKEN & TUNA FLAVOUR DUS 500 GR	35,417	Dus	Rp15.995	Rp566.495

Tabel L3.1 Lanjutan
 Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/ minggu)
96	8853301400114	MK 29 - WHISKAS CHICKEN & TUNA FLAVOUR 1.5 KG	44,917	Zak	Rp39.784	Rp1.786.978
97	9310768055404	MK 13 - SNAPPY TOM WHOLE FISH 400 GR	54,333	Kaleng	Rp7.700	Rp418.364
98	9556621211819	MK 17 - MACHIKO DRY CATFOOD TUNASARDIN FLAVR 1.5KG	45,25	Kaleng	Rp39.400	Rp1.782.850
99	8853301550048	MK 29 - WHISKAS TUNA KITTEN 85GR	47	Zak	Rp3.082	Rp144.854
100	8888621420016	MK 21 - SAVA ESSENTIALS 4 GROWING KITTENS 1.5KG	32,75	Zak	Rp75.000	Rp2.456.250
101	9310768055220	MK 13 - SNAPPY TOM SARDINE SMOKE SALMON JELY 400GR	56,417	Kaleng	Rp7.700	Rp434.411
102	9300605009806	MK 13 - FRISKIES 1.5 KG MACKEREL & SEAFOOD	43,833	Zak	Rp36.500	Rp1.599.905
103	8994571005606	MA 13 - SUPREME 380GR CHIC	58,083	Kaleng	Rp7.600	Rp441.431
104	9556621211833	MK 17 - MACHIKO DRY CATFOOD GOURMET FLAVOUR 1.5 KG	56,167	Kaleng	Rp39.400	Rp2.212.980
105	8853301300063	MA 29 - PEDIGREE ADULT CHICKEN LIVER 500GR	49,167	Zak	Rp12.912	Rp634.844
106	8853301140645	MK 29 - WHISKAS MACKEREL DUS 500GR	51,417	Zak	Rp15.995	Rp822.415
107	9310768055169	MK 13 - SNAPPY TOM SEAFOOD PLATER 400 GR	69,833	Kaleng	Rp7.700	Rp537.714
108	9310022807619	MK 29 - WHISKAS OCEAN FISH CAN 400GR400GR	50,917	Zak	Rp8.925	Rp454.434
109	19014015528	MA 07 - EUKA SENIOR SMALL BREED 3 KG	57,583	Zak	Rp87.000	Rp5.009.721
110	19014280148	MA 07 - IAMS DOG ADULT BEEF & RICE CAN 396GR	45,917	Zak	Rp10.513	Rp482.702
111	9556621211291	MK 17 - MACHIKO DRY CATFOOD OCEANFISH FLAVR 1.5KG	36	Kaleng	Rp39.400	Rp1.418.400
112	9300603830037	MK 13 - FRISKIES 500 GR OCEAN FISH FLAVOUR	43,583	Zak	Rp14.600	Rp636.312
113	8994571003367	MA 21 - MAINSOURCE PUPPY CHICKEN&RICE 3.16Kg	16,417	Zak	Rp44.850	Rp736.302
114	9300603830143	MK 13 - FRISKIES 500 GR KITTEN	28,833	Zak	Rp14.600	Rp420.962
115	8994571004647	MA 21 - COUNTRY BEEF KALENG 700g	30	Kaleng	Rp12.600	Rp378.000
116	8994571005651	MA 13 - SUPREME PLUS PUPPY FOR DOGS 700g KALENG	35,167	Kaleng	Rp13.500	Rp474.755
117	9556621211826	MK 17 - MACHIKO DRY CATFOOD TUNA SARDIN FLAVR 500G	48,667	Kaleng	Rp17.000	Rp827.339
118	4949784003035	MK 21 - PF 3MIX FISH.CHICKEN.LIVER 1.5Kg	61	Kaleng	Rp26.975	Rp1.645.475
119	9310768055015	MK 13 - SNAPPY TOM FISHERMAN'S BASKET 400 GR	63,833	Kaleng	Rp7.700	Rp491.514
120	9310768055282	MK 13 - SNAPPY TOM PILCHARDS IN PRAWN JELLY 400 GR	50,167	Kaleng	Rp7.700	Rp386.286

Tabel L3.1 Lanjutan
 Nilai Barang yang Disimpan

No	Kode Barang	Nama Barang	Rata - rata persediaan (unit/minggu)	Satuan	Harga Beli (Rp/unit)	Nilai Barang disimpan (Rp/ minggu)
121	9310768055961	MK 13 - SNAPPY TOM CHUNKY FISH 400 GR	62,417	Kaleng	Rp7.700	Rp480.611
122	8851012686735	MK 13 - FRISKIES 400 GR TUNA	48,667	Zak	Rp8.100	Rp394.203
123	9310768055756	MK 13 - SNAPPY TOM SARDINES&TREVALLY CUTLETS 400GR	41,667	Kaleng	Rp7.700	Rp320.836
124	9556621211369	MK 17 - MACHIKO SARDINE IN SALMON JELLY 400 G	51,5	Kaleng	Rp7.420	Rp382.130
125	19014280247	MA 07 - IAMS DOG ADULT CHICKEN & RICE CAN 396 GR	27,5	Zak	Rp10.513	Rp289.094
126	9310022807213	MK 29 - WHISKAS SARDEN. CALAMARI & PRAWNS CAN 400G	54,583	Zak	Rp8.050	Rp439.393
127	9556621211840	MK 17 - MACHIKO DRY CATFOOD GOURMET FLAVOUR 500 G	51,75	Kaleng	Rp17.000	Rp879.750
128	9556621211284	MK 17 - MACHIKO DRY CATFOOD OCEANFISH FLAVOUR 500G	45,5	Kaleng	Rp17.000	Rp773.500
129	9310022709302	MK 29 - WHISKAS CHIC LIVER CAN 400GR	40,5	Zak	Rp9.450	Rp382.725
130	9556621211390	MK 17 - MACHIKO PILCHARD PRAWN JELLY 400 G	32,25	Zak	Rp7.420	Rp239.295
131	8850124020352	MK 13 - FRISKIES 85 GR KITTEN MACKEREL	27,167	Kaleng	Rp3.700	Rp100.518
132	8994571003718	MA 21 - COUNTRY PUPPY FORMULA 1.5Kg	63,417	Kaleng	Rp16.900	Rp1.071.747
133	9310022726507	MA 29 - PEDIGREE CHICKEN ADULT 400GR KALENG	48,917	Kaleng	Rp11.484	Rp561.763
134	8853301550079	MK 29 - WHISKAS MACKEREL & SALMON 85GR	50,167	Zak	Rp2.831	Rp142.023
135	8853301550093	MK 29 - WHISKAS TUNA & FISHBALL 85GR	61,917	Zak	Rp2.916	Rp180.550
136	8994571004685	MA 21 - COUNTRY LAMB & RICE 400g	55,667	Kaleng	Rp8.050	Rp448.119
137	9310022807411	MK 29 - WHISKAS SEAFOOD PLATTER CAN 400GR	37	Kaleng	Rp8.050	Rp297.850
138	8994571004708	MA 21 - COUNTRY PUPPY LAMB & RICE KALENG 700g	74,167	Kaleng	Rp13.300	Rp986.421
139	8853301550017	MK 29 - WHISKAS TUNA 85GR	44,333	Zak	Rp2.871	Rp127.280
140	8994571004609	MA 21 - COUNTRY CHICKEN & RICE KALENG 400g	63,33	Kaleng	Rp8.050	Rp509.807
					Total	Rp550.089.775

Contoh perhitungan : 8994571004777

Nilai barang yang disimpan : Rata – rata persediaan x harga beli

$$: 345,67 \times \text{Rp. } 204.000,00 = \text{Rp}70.516.680,00$$

Perhitungan Pola Q Saat Ini

Tabel L4.1

Data – Data Pengendalian Metode Q Saat Ini

No	Kode Barang	R (unit/ minggu)	σ (unit)	C (Rp/pesan)	P (Rp/ unit)	i per minggu	H (Rp/unit/ minggu)	L (minggu)	π (Rp/unit)	μ_L (unit)	σ_L (unit)
Supplier : HMI											
1	8994571004777	31,839	2,476	Rp12.937,297	Rp204.000	0,26420%	Rp538,968	0,143	Rp116.000	4,553	0,936
2	8994571004760	23,749	3,081	Rp12.937,297	Rp216.000	0,26420%	Rp570,672	0,143	Rp124.000	3,396	1,165
Supplier : Eukanuba											
1	19014006687	5,496	1,909	Rp12.937,297	Rp387.875	0,230%	Rp892,500	0,143	Rp92.125	0,786	0,722
2	19014113644	4,164	3,067	Rp12.937,297	Rp369.750	0,230%	Rp850,795	0,143	Rp90.250	0,595	1,160
3	19014113637	7,040	2,954	Rp12.937,297	Rp199.375	0,230%	Rp458,762	0,143	Rp50.625	1,007	1,117
4	19014006632	5,954	3,169	Rp12.937,297	Rp199.375	0,230%	Rp458,762	0,143	Rp50.625	0,851	1,198
5	19014140640	6,776	2,233	Rp12.937,297	Rp369.750	0,230%	Rp850,795	0,143	Rp90.250	0,969	0,844
6	19014106080	1,481	1,486	Rp12.937,297	Rp134.125	0,230%	Rp308,622	0,143	Rp50.875	0,212	0,562
7	19014132645	3,169	2,265	Rp12.937,297	Rp340.750	0,230%	Rp784,066	0,143	Rp99.250	0,453	0,857
8	19014006588	1,625	6,183	Rp12.937,297	Rp58.000	0,230%	Rp133,458	0,143	Rp22.000	0,232	2,338
9	19014006700	2,627	1,551	Rp12.937,297	Rp387.875	0,230%	Rp892,500	0,143	Rp92.125	0,376	0,587
10	19014140633	0,393	2,008	Rp12.937,297	Rp199.375	0,230%	Rp458,762	0,143	Rp50.625	0,056	0,759
11	19014113620	10,093	3,815	Rp12.937,297	Rp94.250	0,230%	Rp216,869	0,143	Rp35.750	1,443	1,443
12	19014106202	6,071	1,217	Rp12.937,297	Rp304.500	0,230%	Rp700,655	0,143	Rp55.500	0,868	0,460
13	19014114641	3,765	1,235	Rp12.937,297	Rp340.750	0,230%	Rp784,066	0,143	Rp99.250	0,538	0,467
Supplier : Setrasari											
1	7896642901439	2,953	0,367	Rp12.937,297	Rp230.000	0,131%	Rp300,380	0,143	Rp95.000	0,422	0,139
2	7896642900500	8,408	1,122	Rp12.937,297	Rp235.000	0,131%	Rp306,910	0,143	Rp55.000	1,202	0,424
3	73893004004	2,991	0,27	Rp12.937,297	Rp174.570	0,131%	Rp227,988	0,143	Rp45.430	0,428	0,102

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit./ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan (Rp/ order)

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H = Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp.204.000 = Rp.538,968$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

μ_L = *per min taan pada saat lead time (unit)* = $R * L = 31,839 * 0,143 = 4,553$ unit

σ_L = *s tan dar deviasi pada saat lead time (unit / min ggu)* = $\sigma * \sqrt{L} = 2,476 * \sqrt{0,143} = 0,936$ unit

Tabel L4.2
Pengolahan Metode Q Saat Ini

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk = $\sigma_L * E(k)$
Supplier : HMI						
1	8994571004777	100	0,01438	2,1867	0,00508	0,00476
2	8994571004760	100	0,01901	2,0746	0,00695	0,00810
Supplier : Eukanuba						
1	19014006687	10	0,01732	2,950	0,01184	0,00855
2	19014113644	10	0,02214	4,206	0,04074	0,04725
3	19014113637	10	0,01271	4,871	0,01523	0,01702
4	19014006632	10	0,01499	5,013	0,02278	0,02729
5	19014140640	5	0,00691	4,181	0,00530	0,00448
6	19014106080	5	0,02006	2,055	0,02250	0,01264
7	19014132645	5	0,01231	3,869	0,01678	0,01437
8	19014006588	20	0,06949	0,0089	0,23138	0,54099
9	19014006700	5	0,01811	2,3133	0,01446	0,00848
10	19014140633	5	0,10339	0,0000000097	0,05555	0,04218
11	19014113620	10	0,00597	7,390	0,00861	0,01242
12	19014106202	5	0,01029	2,268	0,00322	0,00148
13	19014114641	5	0,01038	2,1385	0,00441	0,00206
Supplier : setrasari						
1	7896642901439	5	0,00533	2,5534	0,00170	0,00024
2	7896642900500	10	0,00659	2,479	0,00214	0,00091
3	73893004004	5	0,00832	2,39455	0,00277	0,00028

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.538,968 * 100}{Rp.116.000 * 31,839 + Rp.538,968 * 100} = 0,01438$$

Cari k = 2,1867 (tabel normal) → E(k) = 0,00508

$$Nk = \sigma_L * E(k) = 2,1867 * 0,00508 = 0,00476$$

Tabel L4.3

Ongkos Total Metode Q Saat Ini

No	Kode Barang	R (unit/ minggu)	Q lama (unit)	C (Rp/pesan)	B (unit)	μ_L (Unit)	H	Nk (unit/ bulan)	π (Rp/ unit)	O.pesan (Rp)	O.simpan (Rp)	O.stockout (Rp)	O.total (Rp)
Supplier : HMI													
1	8994571004777	31,839	100	Rp12.937,297	1	4,553	Rp538,968	0,00476	Rp116.000	Rp4.119,04	Rp25.036,06	Rp175,82	Rp59.812,60
2	8994571004760	23,749	100	Rp12.937,297	1	3,396	Rp570,672	0,00810	Rp124.000	Rp3.072,41	Rp27.170,87	Rp238,39	
Supplier : Eukanuba													
1	19014006687	5,496	10	Rp12.937,297	1	0,786	Rp892,500	0,00855	Rp92.125	Rp7.110,88	Rp4.661,14	Rp432,76	Rp146.310,25
2	19014113644	4,164	10	Rp12.937,297	1	0,595	Rp850,795	0,04725	Rp90.250	Rp5.387,20	Rp4.638,35	Rp1.775,67	
3	19014113637	7,040	10	Rp12.937,297	1	1,007	Rp458,762	0,01702	Rp50.625	Rp9.108,07	Rp2.298,52	Rp606,53	
4	19014006632	5,954	10	Rp12.937,297	3	0,851	Rp458,762	0,02729	Rp50.625	Rp7.702,87	Rp3.292,02	Rp822,69	
5	19014140640	6,776	5	Rp12.937,297	1	0,969	Rp850,795	0,00448	Rp90.250	Rp17.533,27	Rp2.157,17	Rp547,43	
6	19014106080	1,481	5	Rp12.937,297	2	0,212	Rp308,622	0,01264	Rp50.875	Rp3.832,89	Rp1.327,32	Rp190,56	
7	19014132645	3,169	5	Rp12.937,297	1	0,453	Rp784,066	0,01437	Rp99.250	Rp8.199,66	Rp2.400,18	Rp903,91	
8	19014006588	1,625	20	Rp12.937,297	3	0,232	Rp133,458	0,54099	Rp22.000	Rp1.050,83	Rp1.776,15	Rp966,72	
9	19014006700	2,627	5	Rp12.937,297	1	0,376	Rp892,500	0,00848	Rp92.125	Rp6.795,96	Rp2.796,11	Rp410,36	
10	19014140633	0,393	5	Rp12.937,297	1	0,056	Rp458,762	0,04218	Rp50.625	Rp1.016,70	Rp1.599,24	Rp167,81	
11	19014113620	10,093	10	Rp12.937,297	3	1,443	Rp216,869	0,01242	Rp35.750	Rp13.057,83	Rp1.424,64	Rp448,32	
12	19014106202	6,071	5	Rp12.937,297	1	0,868	Rp700,655	0,00148	Rp55.500	Rp15.707,17	Rp1.845,10	Rp99,92	
13	19014114641	3,765	5	Rp12.937,297	1	0,538	Rp784,066	0,00206	Rp99.250	Rp9.740,71	Rp2.323,75	Rp153,84	
Supplier : setrasari													
1	7896642901439	2,953	5	Rp12.937,297	1	0,422	Rp300,380	0,000236	Rp95.000	Rp7.640,12	Rp924,57	Rp13,24	Rp29.416,72
2	7896642900500	8,408	10	Rp12.937,297	1	1,202	Rp306,910	0,00091	Rp55.000	Rp10.877,57	Rp1.472,73	Rp42,05	
3	73893004004	2,991	5	Rp12.937,297	1	0,428	Rp227,988	0,000283	Rp45.430	Rp7.738,23	Rp700,52	Rp7,69	

Contoh Perhitungan : 8994571004777

B = reorder point (unit)

Nk = jumlah unit *lost sales* selama *lead time* (unit/ minggu)

π = biaya *stock out* (Rp/ unit)

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{31,839}{100} * Rp.12.937,297 = Rp.4.119,04$$

$$\begin{aligned}\text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.538,968 * \left(\frac{100}{2} + 1 - 4,533 + 0,00476 \right) \\ &= Rp.25.036,06\end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{31,839}{100} * 0,00476 * Rp.116.000 = Rp.175,82$$

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Tabel L5.1

Rata – rata Ongkos Pembelian per Minggu

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)
1	8994571004777	31,839	Rp204.000,00	Rp6.495.156,00
2	8994571004760	23,749	Rp216.000,00	Rp5.129.784,00
3	19014006687	5,496	Rp387.875,00	Rp2.131.761,00
4	19014113644	4,164	Rp369.750,00	Rp1.539.639,00
5	19014113637	7,04	Rp199.375,00	Rp1.403.600,00
6	19014006632	5,954	Rp199.375,00	Rp1.187.078,75
7	19014140640	6,776	Rp369.750,00	Rp2.505.426,00
8	19014106080	1,481	Rp134.125,00	Rp198.639,13
9	19014132645	3,169	Rp340.750,00	Rp1.079.836,75
10	19014006588	1,625	Rp58.000,00	Rp94.250,00
11	19014006700	2,627	Rp387.875,00	Rp1.018.947,63
12	19014140633	0,393	Rp199.375,00	Rp78.354,38
13	19014113620	10,093	Rp94.250,00	Rp951.265,25
14	19014106202	6,071	Rp304.500,00	Rp1.848.619,50
15	19014114641	3,765	Rp340.750,00	Rp1.282.923,75
16	7896642901439	2,953	Rp230.000,00	Rp679.190,00
17	7896642900500	8,408	Rp235.000,00	Rp1.975.880,00
18	73893004004	2,991	Rp174.570,00	Rp522.138,87

Contoh perhitungan : 8994571004777

Ongkos Pembelian = R x Harga beli

$$= 31,839 \times \text{Rp}, 204,000,00 = \text{Rp}, 6,495,156,00$$

Tabel L5.2

Biaya Pemesanan per Supplier

Jenis	Biaya	Supplier HMI		Supplier Eukanuba		Supplier Setrasari	
	(per satuan)	1 Supplier	1 Supplier	1 Supplier	1 Supplier	1 Supplier	1 Supplier
Biaya telepon	Rp.300,00	1 menit	Rp300,00	4 menit	Rp1.200,00	1,5 menit	Rp450,00
Biaya faximile	Rp. 1.200,00	1 lembar	Rp1.200,00	1 lembar	Rp1.200,00	1 lembar	Rp1.200,00
Biaya karyawan melakukan pemesanan	Rp. 303,82	5 menit	Rp 1.519,1	7 menit	Rp2.126,74	5,5 menit	Rp 1.671,01
Biaya angkut	Rp10.000,00	1 supplier	Rp20.000,00	1 supplier	Rp20.000,00	1 supplier	Rp20.000,00
Biaya pemeriksaan barang yang datang	Rp86,81	45 menit	Rp3.906,27	20 menit	Rp1.736,12	10 menit	Rp868,06
Biaya karyawan memasukkan barang ke toko	Rp138,89	40 menit	Rp5.555,56	20 menit	Rp2.777,78	10 menit	Rp1.388,89
		Total	Rp 32.480,93	Total	Rp 29.040,64	Total	Rp25.577,96

Tabel L5.3

Metode P Supplier HMI

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : HMI													
untuk t = 1													
1	8994571004777	1	Rp538,97	Rp116.000	31,839	2,476	0,143	1,143	0,00462	2,603	36,392	2,647	43,282
2	8994571004760	1	Rp570,67	Rp124.000	23,749	3,081	0,143	1,143	0,00458	2,606	27,145	3,294	35,729
Supplier : HMI													
untuk t = 2													
1	8994571004777	2	Rp538,97	Rp116.000	31,839	2,476	0,143	2,143	0,00921	2,357	68,231	3,625	76,774
2	8994571004760	2	Rp570,67	Rp124.000	23,749	3,081	0,143	2,143	0,00912	2,361	50,894	4,510	61,541

Untuk supplier HMI :

$$t = \frac{2C}{F \sum_{i=1}^n P_i \cdot R_i} = \sqrt{\frac{2 * Rp.32.480,93}{0,2642\% * Rp.11.624.940,00}} = 1,454$$

t = 1,454, sehingga terdapat dua alternatif besarnya t yaitu t = 1 dan t = 2

Tabel L5.4

Metode P Supplier Eukanuba

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : Eukanuba													
untuk t=1													
1	19014006687	1	Rp892,50	Rp92.125	5,496	1,909	0,143	1,143	0,00959	3,355	6,282	2,041	13,129
2	19014113644	1	Rp850,79	Rp90.250	4,164	3,067	0,143	1,143	0,00934	5,756	4,759	3,279	23,633
3	19014113637	1	Rp458,76	Rp50.625	7,04	2,954	0,143	1,143	0,00898	5,285	8,047	3,158	24,738
4	19014006632	1	Rp458,76	Rp50.625	5,954	3,169	0,143	1,143	0,00898	5,780	6,805	3,388	26,388
5	19014140640	1	Rp850,79	Rp90.250	6,776	2,233	0,143	1,143	0,00934	3,9480	7,745	2,387	17,170
6	19014106080	1	Rp308,62	Rp50.875	1,481	1,486	0,143	1,143	0,00603	3,373	1,693	1,589	7,051
7	19014132645	1	Rp784,07	Rp99.250	3,169	2,265	0,143	1,143	0,00784	4,467	3,622	2,422	14,439
8	19014006588	1	Rp133,46	Rp22.000	1,625	6,183	0,143	1,143	0,00603	10,8700	1,857	6,610	73,712
9	19014006700	1	Rp892,50	Rp92.125	2,627	1,551	0,143	1,143	0,00959	2,8120	3,003	1,658	7,665
10	19014140633	1	Rp458,76	Rp50.625	0,393	2,008	0,143	1,143	0,00898	1,2305	0,449	2,147	3,091
11	19014113620	1	Rp216,87	Rp35.750	10,093	3,815	0,143	1,143	0,00603	7,374	11,536	4,079	41,612
12	19014106202	1	Rp700,65	Rp55.500	6,071	1,217	0,143	1,143	0,01247	2,2050	6,939	1,301	9,808
13	19014114641	1	Rp784,07	Rp99.250	3,765	1,235	0,143	1,143	0,00784	2,2584	4,303	1,320	7,285

Lanjutan Tabel L5.4
Metode P Supplier Eukanuba

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit /minggu)	(Rp/unit)	(unit /minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : Eukanuba													
untuk t=2													
1	19014006687	2	Rp892,50	Rp92.125	5,496	1,909	0,143	2,143	0,01901	2,8834	11,778	2,795	19,836
2	19014113644	2	Rp850,79	Rp90.250	4,164	3,067	0,143	2,143	0,01851	4,5210	8,923	4,490	29,222
3	19014113637	2	Rp458,76	Rp50.625	7,04	2,954	0,143	2,143	0,01780	4,4690	15,087	4,324	34,412
4	19014006632	2	Rp458,76	Rp50.625	5,954	3,169	0,143	2,143	0,01780	4,7580	12,759	4,639	34,832
5	19014140640	2	Rp850,79	Rp90.250	6,776	2,233	0,143	2,143	0,01851	3,4165	14,521	3,269	25,689
6	19014106080	2	Rp308,62	Rp50.875	1,481	1,486	0,143	2,143	0,01199	2,6020	3,174	2,175	8,834
7	19014132645	2	Rp784,07	Rp99.250	3,169	2,265	0,143	2,143	0,01555	3,5630	6,791	3,316	18,605
8	19014006588	2	Rp133,46	Rp22.000	1,625	6,183	0,143	2,143	0,01199	4,7400	3,482	9,051	46,385
9	19014006700	2	Rp892,50	Rp92.125	2,627	1,551	0,143	2,143	0,01901	2,2760	5,630	2,271	10,797
10	19014140633	2	Rp458,76	Rp50.625	0,393	2,008	0,143	2,143	0,01780	0,5803	0,842	2,940	2,548
11	19014113620	2	Rp216,87	Rp35.750	10,093	3,815	0,143	2,143	0,01199	6,3830	21,629	5,585	57,277
12	19014106202	2	Rp700,65	Rp55.500	6,071	1,217	0,143	2,143	0,02463	1,9800	13,010	1,782	16,538
13	19014114641	2	Rp784,07	Rp99.250	3,765	1,235	0,143	2,143	0,01555	1,9654	8,068	1,808	11,622

Untuk supplier Eukanuba :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * Rp.29.040,64}{0.23010\% * Rp.15.320.341,13}} = 1,284$$

t = 1,284, sehingga terdapat dua alternatif besarnya t yaitu t = 1 dan t = 2

Tabel L5.5
Metode P Supplier Setrasari

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}^t	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : setrasari													
untuk t = 3													
1	7896642901439	3	Rp300,38	Rp95.000	2,953	0,367	0,143	3,143	0,00940	2,350	9,281	0,651	10,810
2	7896642900500	3	Rp306,91	Rp55.000	8,408	1,122	0,143	3,143	0,01646	2,133	26,426	1,989	30,669
3	73893004004	3	Rp227,99	Rp45.430	2,991	0,27	0,143	3,143	0,01483	2,175	9,401	0,479	10,442
Supplier : setrasari													
untuk t = 4													
1	7896642901439	4	Rp300,38	Rp95.000	2,953	0,367	0,143	4,143	0,01249	2,242	12,234	0,747	13,909
2	7896642900500	4	Rp306,91	Rp55.000	8,408	1,122	0,143	4,143	0,02183	2,017	34,834	2,284	39,441
3	73893004004	4	Rp227,99	Rp45.430	2,991	0,27	0,143	4,143	0,01968	2,060	12,392	0,550	13,524

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * Rp.25.577,96}{0,1306\% * Rp.3.177.208,87}} = 3,511$$

t = 3,511, sehingga terdapat dua alternatif besarnya t yaitu t = 3 dan t = 4

Tabel L5.5

Ongkos Total Metode P per Supplier

No	Kode barang	t	H (Rp/unit /minggu)	E (unit)	μ_L	R (unit /minggu)	π (Rp/unit)	σ_{L+t} (unit)	E(k)	Nk = $\sigma_{L+t} \cdot E(k)$	O. simpan (Rp/ minggu)	O. stock out (Rp/ minggu)	O. pesan	Total
Supplier : HMI														
untuk t = 1														
1	8994571004777	1	Rp538,97	43,282	4,553	31,839	Rp116.000	2,647	0,0015	0,00384	Rp12.295,90	Rp445,25	Rp32.480,93	Rp57.488,04
2	8994571004760	1	Rp570,67	35,729	3,396	23,749	Rp124.000	3,294	0,0014	0,00474	Rp11.677,79	Rp588,16		
untuk t = 2														
1	8994571004777	2	Rp538,97	76,774	4,553	31,839	Rp116.000	3,625	0,0031	0,01124	Rp21.770,78	Rp651,71	Rp16.240,47	Rp59.158,14
2	8994571004760	2	Rp570,67	61,541	3,396	23,749	Rp124.000	4,510	0,0031	0,01385	Rp19.636,71	Rp858,49		
Supplier : Eukanuba														
untuk t=1														
1	19014006687	1	Rp892,50	13,129	0,786	5,496	Rp92.125	2,041	0,00654	0,01335	Rp8.575,75	Rp1.229,72	Rp29.040,64	Rp164.328,19
2	19014113644	1	Rp850,79	23,633	0,595	4,164	Rp90.250	3,279	0,01784	0,05848	Rp17.878,78	Rp5.278,04		
3	19014113637	1	Rp458,76	24,738	1,007	7,04	Rp50.625	3,158	0,01079	0,03408	Rp9.287,60	Rp1.725,11		
4	19014006632	1	Rp458,76	26,388	0,851	5,954	Rp50.625	3,388	0,01378	0,04670	Rp10.370,97	Rp2.364,00		
5	19014140640	1	Rp850,79	17,170	0,969	6,776	Rp90.250	2,387	0,00718	0,01714	Rp10.915,95	Rp1.546,67		
6	19014106080	1	Rp308,62	7,051	0,212	1,481	Rp50.875	1,589	0,00727	0,01155	Rp1.885,90	Rp587,59		
7	19014132645	1	Rp784,07	14,439	0,453	3,169	Rp99.250	2,422	0,01086	0,02629	Rp9.744,21	Rp2.609,38		
8	19014006588	1	Rp133,46	73,712	0,232	1,625	Rp22.000	6,610	0,08185	0,54107	Rp9.770,16	Rp11.903,63		
9	19014006700	1	Rp892,50	7,665	0,376	2,627	Rp92.125	1,658	0,00778	0,01291	Rp5.345,40	Rp1.188,97		
10	19014140633	1	Rp458,76	3,091	0,056	0,393	Rp50.625	2,147	0,03835	0,08233	Rp1.339,79	Rp4.168,10		
11	19014113620	1	Rp216,87	41,612	1,443	10,093	Rp35.750	4,079	0,00871	0,03552	Rp7.624,70	Rp1.269,80		
12	19014106202	1	Rp700,65	9,808	0,868	6,071	Rp55.500	1,301	0,00393	0,00512	Rp4.140,56	Rp283,91		
13	19014114641	1	Rp784,07	7,285	0,538	3,765	Rp99.250	1,320	0,00332	0,00439	Rp3.817,44	Rp435,43		

Lanjutan Tabel L5.5

Ongkos Total Metode P per Supplier

No	Kode barang	t	H (Rp/unit/ minggu)	E (unit)	μ_L	R (unit/ minggu)	π (Rp/unit)	σ_{L+t} (unit)	E(k)	Nk = $\sigma_{L+t} \cdot E(k)$	O.simpan (Rp / minggu)	O.stock out (Rp /minggu)	O.pesan	Total
Supplier : Eukanuba														
untuk t=2														
1	19014006687	2	Rp892,50	19,836	0,786	5,496	Rp92.125	2,795	0,01305	0,03647	Rp12.129,41	Rp1.679,92		
2	19014113644	2	Rp850,79	29,222	0,595	4,164	Rp90.250	4,490	0,03436	0,15425	Rp20.943,62	Rp6.960,50		
3	19014113637	2	Rp458,76	34,412	1,007	7,04	Rp50.625	4,324	0,02131	0,09215	Rp12.137,79	Rp2.332,58		
4	19014006632	2	Rp458,76	34,832	0,851	5,954	Rp50.625	4,639	0,02695	0,12500	Rp12.914,98	Rp3.164,16		
5	19014140640	2	Rp850,79	25,689	0,969	6,776	Rp90.250	3,269	0,0143	0,04676	Rp15.306,57	Rp2.110,08		
6	19014106080	2	Rp308,62	8,834	0,212	1,481	Rp50.875	2,175	0,01394	0,03032	Rp2.213,31	Rp771,27		
7	19014132645	2	Rp784,07	18,605	0,453	3,169	Rp99.250	3,316	0,02102	0,06970	Rp11.802,26	Rp3.458,68		
8	19014006588	2	Rp133,46	46,385	0,232	1,625	Rp22.000	9,051	0,13383	1,21133	Rp6.104,29	Rp13.324,61		
9	19014006700	2	Rp892,50	10,797	0,376	2,627	Rp92.125	2,271	0,01515	0,03440	Rp6.987,45	Rp1.584,43		
10	19014140633	2	Rp458,76	2,548	0,056	0,393	Rp50.625	2,940	0,048	0,14110	Rp1.027,58	Rp3.571,50		
11	19014113620	2	Rp216,87	57,277	1,443	10,093	Rp35.750	5,585	0,01731	0,09665	Rp9.940,69	Rp1.727,63		
12	19014106202	2	Rp700,65	16,538	0,868	6,071	Rp55.500	1,782	0,00796	0,01418	Rp6.735,17	Rp393,51		
13	19014114641	2	Rp784,07	11,622	0,538	3,765	Rp99.250	1,808	0,00662	0,01197	Rp5.747,40	Rp594,21	Rp14.520,32	Rp180.183,93
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp300,38	10,810	0,422	2,953	Rp95.000	0,651	0,003	0,00206	Rp1.790,35	Rp65,31		
2	7896642900500	3	Rp306,91	30,669	1,202	8,408	Rp55.000	1,989	0,006	0,01176	Rp5.176,47	Rp215,68		
3	73893004004	3	Rp227,99	10,442	0,428	2,991	Rp45.430	0,479	0,005	0,00252	Rp1.260,76	Rp38,14	Rp8.525,99	Rp17.072,69
untuk t = 4														
1	7896642901439	4	Rp300,38	13,909	0,422	2,953	Rp95.000	0,747	0,004	0,00325	Rp2.278,02	Rp77,09		
2	7896642900500	4	Rp306,91	39,441	1,202	8,408	Rp55.000	2,284	0,008	0,01854	Rp6.580,63	Rp254,93		
3	73893004004	4	Rp227,99	13,524	0,428	2,991	Rp45.430	0,550	0,007	0,00397	Rp1.622,89	Rp45,09	Rp6.394,49	Rp17.253,14

Contoh perhitungan : 8994571004777 untuk t = 1

E(k) didapat dari tabel gamma/ normal, E(k) → 0,0015

$$N(k) = \sigma_{L+t} \cdot E(k) = 2,647 \times 0,0015 = 0,00384$$

Ongkos simpan =

$$H * \left(E - \mu_t - \frac{Rxt}{2} + Nk \right) = Rp.538,97 * \left(43,282 - 4,553 - \frac{31,839 * 1}{2} + 0,00384 \right) = Rp.12.295,90$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} \times Nk = \frac{Rp.116000}{1} \times 0,00384 = Rp.445,25$$

$$\text{Ongkos pesan} = \frac{C}{t} = \frac{Rp.32.480,93}{1} = Rp.32.480,93$$

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Tabel L6.1

Ongkos Pembelian per Minggu

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)
Suplier : HMI				
1	8994571004777	31,839	Rp204.000,00	Rp6.495.156,00
2	8994571004760	23,749	Rp216.000,00	Rp5.129.784,00
			Total	Rp11.624.940,00
Suplier : Eukanuba				
3	19014006687	5,496	Rp387.875,00	Rp2.131.761,00
4	19014113644	4,164	Rp369.750,00	Rp1.539.639,00
5	19014113637	7,04	Rp199.375,00	Rp1.403.600,00
6	19014006632	5,954	Rp199.375,00	Rp1.187.078,75
7	19014140640	6,776	Rp369.750,00	Rp2.505.426,00
8	19014106080	1,481	Rp134.125,00	Rp198.639,13
9	19014132645	3,169	Rp340.750,00	Rp1.079.836,75
10	19014006588	1,625	Rp58.000,00	Rp94.250,00
11	19014006700	2,627	Rp387.875,00	Rp1.018.947,63
12	19014140633	0,393	Rp199.375,00	Rp78.354,38
13	19014113620	10,093	Rp94.250,00	Rp951.265,25
14	19014106202	6,071	Rp304.500,00	Rp1.848.619,50
15	19014114641	3,765	Rp340.750,00	Rp1.282.923,75
			Total	Rp15.320.341,13
Suplier : Setrasari				
16	7896642901439	2,953	Rp230.000,00	Rp679.190,00
17	7896642900500	8,408	Rp235.000,00	Rp1.975.880,00
18	73893004004	2,991	Rp174.570,00	Rp522.138,87
			Total	Rp3.177.208,87

Tabel L6.2

Biaya Pemesanan per Supplier

Jenis	Biaya	Supplier HMI		Supplier Eukanuba		Supplier Setrasari	
	(per satuan)	1 Supplier	1 Supplier	1 Supplier	1 Supplier	1 Supplier	1 Supplier
Biaya telepon	Rp.300,00	1 menit	Rp300,00	4 menit	Rp1.200,00	1.5 menit	Rp450,00
Biaya faximile	Rp. 1.200,00	1 lembar	Rp1.200,00	1 lembar	Rp1.200,00	1 lembar	Rp1.200,00
Biaya karyawan melakukan pemesanan	Rp. 303,82	5 menit	Rp 1.519,1	7 menit	Rp2.126,74	5,5 menit	Rp 1.671,01
Biaya angkut	Rp10.000,00	1 supplier	Rp20.000,00	1 supplier	Rp20.000,00	1 supplier	Rp20.000,00
Biaya pemeriksaan barang yang datang	Rp86.81	45 menit	Rp3.906,27	20 menit	Rp1.736,12	10 menit	Rp868,06
Biaya karyawan memasukkan barang ke toko	Rp138.89	40 menit	Rp5.555,56	20 menit	Rp2.777,78	10 menit	Rp1.388,89
		Total	Rp 32.480,93	Total	Rp 29.040,64	Total	Rp25.577,96

Tabel L6.3

Metode Opsional Supplier HMI

No	Kode barang	t	H	R	σ	C	P	i	π	L	L+t
		(minggu)	(Rp/unit/ minggu)	(unit/ minggu)	(unit/ minggu)	(Rp/ pesan/ item)	(Rp/ unit)		(Rp/unit)	(minggu)	(minggu)
Supplier : HMI											
untuk t = 1											
1	8994571004777	1	Rp538,97	31,839	2,476	Rp16.240,47	Rp204.000	0,2642%	Rp116.000,00	0,143	1,143
2	8994571004760	1	Rp570,67	23,749	3,081	Rp16.240,47	Rp216.000	0,2642%	Rp124.000,00	0,143	1,143
Supplier : HMI											
untuk t = 2											
1	8994571004777	2	Rp538,97	31,839	2,476	Rp16.240,47	Rp204.000	0,2642%	Rp116.000,00	0,143	2,143
2	8994571004760	2	Rp570,67	23,749	3,081	Rp16.240,47	Rp216.000	0,2642%	Rp124.000,00	0,143	2,143

Untuk supplier HMI :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * Rp.32.480,93}{0,2642\% * Rp.11.624.940,00}} = 1,454$$

t = 1,454, sehingga terdapat dua alternatif besarnya t yaitu t = 1 dan t = 2

$$C = \frac{C}{\text{jumlah item tiap supplier}} = \frac{Rp.32.480,93}{2} = Rp.16.240,47 / \text{pesan/ item}$$

$$H = i * P = 0,2642\% * Rp.204.000,00 = Rp.538,968 / \text{unit/ minggu}$$

Tabel L6.4

Metode Opsional Supplier Eukanuba

No	Kode barang	t	H	R	σ	C	P	i	π	L	L+t
		(minggu)	(Rp/unit/minggu)	(unit/minggu)	(unit/minggu)	(Rp/ pesan/ item)	(Rp/ unit)		(Rp/unit)	(minggu)	(minggu)
Supplier : Eukanuba											
untuk t=1											
1	19014006687	1	Rp892,50	5,496	1,909	Rp2.233,90	Rp387.875,00	0,2301%	Rp92.125,00	0,143	1,143
2	19014113644	1	Rp850,79	4,164	3,067	Rp2.233,90	Rp369.750,00	0,2301%	Rp90.250,00	0,143	1,143
3	19014113637	1	Rp458,76	7,04	2,954	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	1,143
4	19014006632	1	Rp458,76	5,954	3,169	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	1,143
5	19014140640	1	Rp850,79	6,776	2,233	Rp2.233,90	Rp369.750,00	0,2301%	Rp90.250,00	0,143	1,143
6	19014106080	1	Rp308,62	1,481	1,486	Rp2.233,90	Rp134.125,00	0,2301%	Rp50.875,00	0,143	1,143
7	19014132645	1	Rp784,07	3,169	2,265	Rp2.233,90	Rp340.750,00	0,2301%	Rp99.250,00	0,143	1,143
8	19014006588	1	Rp133,46	1,625	6,183	Rp2.233,90	Rp58.000,00	0,2301%	Rp22.000,00	0,143	1,143
9	19014006700	1	Rp892,50	2,627	1,551	Rp2.233,90	Rp387.875,00	0,2301%	Rp92.125,00	0,143	1,143
10	19014140633	1	Rp458,76	0,393	2,008	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	1,143



Lanjutan Tabel L6.4

Metode Opsional Supplier Eukanuba

No	Kode barang	t	H	R	sigma	C	P	i	phi	L	L+t
		(minggu)	(Rp/unit/minggu)	(unit/minggu)	(unit/minggu)	(Rp/ pesan/ item)	(Rp/ unit)		(Rp/unit)	(minggu)	(minggu)
Supplier : Eukanuba											
untuk t=1											
11	19014113620	1	Rp216,87	10,093	3,815	Rp2.233,90	Rp94.250,00	0,2301%	Rp35.750,00	0,143	1,143
12	19014106202	1	Rp700,65	6,071	1,217	Rp2.233,90	Rp304.500,00	0,2301%	Rp55.500,00	0,143	1,143
13	19014114641	1	Rp784,07	3,765	1,235	Rp2.233,90	Rp340.750,00	0,2301%	Rp99.250,00	0,143	1,143
Supplier : Eukanuba											
untuk t=2											
1	19014006687	2	Rp892,50	5,496	1,909	Rp2.233,90	Rp387.875,00	0,2301%	Rp92.125,00	0,143	2,143
2	19014113644	2	Rp850,79	4,164	3,067	Rp2.233,90	Rp369.750,00	0,2301%	Rp90.250,00	0,143	2,143
3	19014113637	2	Rp458,76	7,04	2,954	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	2,143
4	19014006632	2	Rp458,76	5,954	3,169	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	2,143
5	19014140640	2	Rp850,79	6,776	2,233	Rp2.233,90	Rp369.750,00	0,2301%	Rp90.250,00	0,143	2,143
6	19014106080	2	Rp308,62	1,481	1,486	Rp2.233,90	Rp134.125,00	0,2301%	Rp50.875,00	0,143	2,143
7	19014132645	2	Rp784,07	3,169	2,265	Rp2.233,90	Rp340.750,00	0,2301%	Rp99.250,00	0,143	2,143
8	19014006588	2	Rp133,46	1,625	6,183	Rp2.233,90	Rp58.000,00	0,2301%	Rp22.000,00	0,143	2,143
9	19014006700	2	Rp892,50	2,627	1,551	Rp2.233,90	Rp387.875,00	0,2301%	Rp92.125,00	0,143	2,143
10	19014140633	2	Rp458,76	0,393	2,008	Rp2.233,90	Rp199.375,00	0,2301%	Rp50.625,00	0,143	2,143
11	19014113620	2	Rp216,87	10,093	3,815	Rp2.233,90	Rp94.250,00	0,2301%	Rp35.750,00	0,143	2,143
12	19014106202	2	Rp700,65	6,071	1,217	Rp2.233,90	Rp304.500,00	0,2301%	Rp55.500,00	0,143	2,143
13	19014114641	2	Rp784,07	3,765	1,235	Rp2.233,90	Rp340.750,00	0,2301%	Rp99.250,00	0,143	2,143



Untuk supplier Eukanuba :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * Rp.29.040,64}{0.23010\% * Rp.15.320.341,13}} = 1,284$$

t = 1,284, sehingga terdapat dua alternatif besarnya t yaitu t = 1 dan t = 2

$$C = \frac{C}{\text{jumlah item tiap supplier}} = \frac{Rp.29.040,64}{13} = Rp.2.233,90 / \text{pesan / item}$$

$$H = i * P = 0,23010\% * Rp.94.250,00 = Rp.216,87 / \text{unit / min ggu}$$

Tabel L6.5

Metode Opsional Supplier Setrasari

No	Kode barang	t	H	R	σ	C	P	i	π	L	L+t
		(minggu)	(Rp/unit/minggu)	(unit/minggu)	(unit/minggu)	(Rp/ pesan/ item)	(Rp/ unit)		(Rp/unit)	(minggu)	(minggu)
Supplier : setrasari											
untuk t = 3											
1	7896642901439	3	Rp300,38	2,953	0,367	Rp8.525,99	Rp230.000	0,1306%	Rp95.000	0,143	3,1430
2	7896642900500	3	Rp306,91	8,408	1,122	Rp8.525,99	Rp235.000	0,1306%	Rp55.000	0,143	3,1430
3	73893004004	3	Rp227,99	2,991	0,27	Rp8.525,99	Rp174.570	0,1306%	Rp45.430	0,143	3,1430
Supplier : setrasari											
untuk t =4											
1	7896642901439	4	Rp300,38	2,953	0,367	Rp8.525,99	Rp230.000	0,1306%	Rp95.000	0,143	4,1430
2	7896642900500	4	Rp306,91	8,408	1,122	Rp8.525,99	Rp235.000	0,1306%	Rp55.000	0,143	4,1430
3	73893004004	4	Rp227,99	2,991	0,27	Rp8.525,99	Rp174.570	0,1306%	Rp45.430	0,143	4,1430

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i R_i}} = \sqrt{\frac{2 * Rp.25.577,96}{0,1306\% * Rp.3.177.208,87}} = 3,511$$

t = 3,511, sehingga terdapat dua alternatif besarnya t yaitu t = 3 dan t = 4

$$C = \frac{C}{\text{jumlah item tiap supplier}} = \frac{Rp.25.577,96}{3} = Rp.8.525,99 / \text{pesan} / \text{item}$$

$$H = i * P = 0,1306\% * Rp.230.000,00 = Rp.300,38 / \text{unit} / \text{min} \text{ gg}$$

Tabel L6.6

Nilai B dan E Supplier HMI

No	Kode barang	Q (unit)	F'(k)	k	μ_{L+t} (unit)	σ_{L+t} (unit)	B (unit)	E (unit)
Supplier : HMI								
untuk t = 1								
1	8994571004777	43,804	0,0064	2,492	36,392	2,647	58,908	86,792
2	8994571004760	36,766	0,0071	2,454	27,145	3,294	47,101	71,993
Supplier : HMI								
untuk t = 2								
1	8994571004777	43,804	0,0064	2,492	68,231	3,625	109,103	121,067
2	8994571004760	36,766	0,0071	2,454	50,894	4,510	85,709	98,726

Contoh perhitungan : 8994571004777

$$Q = \sqrt{\frac{2CR}{H}} = \sqrt{\frac{2 * Rp.16.240,47 * 31,839}{Rp.538,968}} = 43,804 \text{ unit}$$

$$F'(k) = \frac{HQ}{\pi R + HQ} = \frac{Rp.538,968 * 43,804}{Rp.116.000 * 31,839 + Rp.538,968 * 43,804} = 0.0064$$

k didapat dari tabel gamma. k → 2,492

$$B = \mu_{L+t} + (k * \sigma_{L+t}) + \left(\frac{R * t}{2} \right)$$

$$= 36,392 + (2,492 * 2,647) + \left(\frac{31,839 * 1}{2} \right) = 58,908 \text{ unit}$$

$$E = Q + B - \left(\frac{R * t}{2} \right)$$

$$= 43,804 + 58,908 - \left(\frac{31,839 * 1}{2} \right)$$

$$= 86,792 \text{ unit}$$

Tabel L6.6
Nilai B dan E Supplier Eukanuba

No	Kode barang	Q (unit)	F'(k)	k	μ_{L+t} (unit)	σ_{L+t} (unit)	B (unit)	E (unit)
Supplier : Eukanuba								
untuk t=1								
1	19014006687	5,245	0,0092	3,387	6,282	2,041	15,943	18,440
2	19014113644	4,676	0,0105	5,546	4,759	3,279	25,027	27,621
3	19014113637	8,280	0,0105	5,093	8,047	3,158	27,651	32,411
4	19014006632	7,615	0,0115	5,414	6,805	3,388	28,125	32,763
5	19014140640	5,965	0,0082	4,046	7,745	2,387	20,792	23,369
6	19014106080	4,630	0,0186	2,134	1,693	1,589	5,823	9,713
7	19014132645	4,249	0,0105	4,081	3,622	2,422	15,089	17,754
8	19014006588	7,376	0,0268	1,638	1,857	6,610	13,494	20,057
9	19014006700	3,626	0,0132	3,381	3,003	1,658	9,923	12,235
10	19014140633	1,956	0,0432	0,002	0,449	2,147	0,649	2,409
11	19014113620	14,420	0,0086	6,865	11,536	4,079	44,583	53,956
12	19014106202	6,222	0,0128	2,197	6,939	1,301	12,834	16,020
13	19014114641	4,632	0,0096	2,171	4,303	1,320	9,052	11,802
Supplier : Eukanuba								
untuk t=2								
1	19014006687	5,245	0,0092	3,387	11,778	2,795	26,739	26,488
2	19014113644	4,676	0,0105	5,546	8,923	4,490	37,988	38,500
3	19014113637	8,280	0,0105	5,093	15,087	4,324	44,151	45,391
4	19014006632	7,615	0,0115	5,414	12,759	4,639	43,829	45,490
5	19014140640	5,965	0,0082	4,046	14,521	3,269	34,523	33,712
6	19014106080	4,630	0,0186	2,134	3,174	2,175	9,296	12,445
7	19014132645	4,249	0,0105	4,081	6,791	3,316	23,492	24,572
8	19014006588	7,376	0,0268	1,638	3,482	9,051	19,929	25,680
9	19014006700	3,626	0,0132	3,381	5,630	2,271	15,933	16,933
10	19014140633	1,956	0,0432	0,002	0,842	2,940	1,240	2,803
11	19014113620	14,420	0,0086	6,865	21,629	5,585	70,062	74,389
12	19014106202	6,222	0,0128	2,197	13,010	1,782	22,996	23,147
13	19014114641	4,632	0,0096	2,171	8,068	1,808	15,758	16,625

Tabel L6.7

Nilai B dan E Supplier Setrasari

No	Kode barang	Q	F'(k)	k	μ_{L+t}	σ_{L+t}	B	E
		(unit)			(unit)	(unit)	(unit)	(unit)
Supplier : setrasari								
untuk t = 3								
1	7896642901439	12,947	0,0137	2,207	9,281	0,651	15,146	23,664
2	7896642900500	21,614	0,0141	2,193	26,426	1,989	43,401	52,403
3	73893004004	14,957	0,0245	1,969	9,401	0,479	14,830	25,300
Supplier : setrasari								
untuk t = 4								
1	7896642901439	12,947	0,0137	2,207	12,234	0,747	19,789	26,830
2	7896642900500	21,614	0,0141	2,193	34,834	2,284	56,659	61,457
3	73893004004	14,957	0,0245	1,969	12,392	0,550	19,456	28,431

Tabel L6.8

Ongkos Total Metode Opsional per Supplier

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E (k)	Nk =	O.simpan	O.stockout	O.pesan	O.total
		(minggu)	(Rp/unit/ minggu)	(unit)	(unit)	(unit/minggu)	(Rp/unit)	(unit)			(Rp/minggu)	(Rp/minggu)		
Supplier : HMI														
untuk t = 1														
1	8994571004777	1	Rp538,97	86,792	4,553	31,839	Rp116.000	2,647	0,002	0,005	Rp35.747,33	Rp632,22	Rp32.480,93	Rp102.181,11
2	8994571004760	1	Rp570,67	71,993	3,396	23,749	Rp124.000	3,294	0,002	0,008	Rp32.374,01	Rp946,61		
untuk t = 2														
1	8994571004777	2	Rp538,97	121,067	4,553	31,839	Rp116.000	3,625	0,002	0,007	Rp45.641,39	Rp432,84	Rp16.240,47	Rp103.817,90
2	8994571004760	2	Rp570,67	98,726	3,396	23,749	Rp124.000	4,510	0,002	0,010	Rp40.855,12	Rp648,08		
Supplier : Eukanuba														
untuk t=1														
1	19014006687	1	Rp892,50	18,440	0,786	5,496	Rp92.125	2,041	0,006	0,013	Rp13.314,82	Rp1.173,31	Rp29.040,64	Rp216.711,38
2	19014113644	1	Rp850,79	27,621	0,595	4,164	Rp90.250	3,279	0,020	0,065	Rp21.277,18	Rp5.893,14		
3	19014113637	1	Rp458,76	32,411	1,007	7,04	Rp50.625	3,158	0,013	0,040	Rp12.810,75	Rp2.024,22		
4	19014006632	1	Rp458,76	32,763	0,851	5,954	Rp50.625	3,388	0,018	0,059	Rp13.301,25	Rp3.002,44		
5	19014140640	1	Rp850,79	23,369	0,969	6,776	Rp90.250	2,387	0,006	0,015	Rp16.188,34	Rp1.361,51		
6	19014106080	1	Rp308,62	9,713	0,212	1,481	Rp50.875	1,589	0,021	0,033	Rp2.713,94	Rp1.695,70		
7	19014132645	1	Rp784,07	17,754	0,453	3,169	Rp99.250	2,422	0,014	0,035	Rp12.349,84	Rp3.452,94		
8	19014006588	1	Rp133,46	20,057	0,232	1,625	Rp22.000	6,610	0,188	1,243	Rp2.703,34	Rp27.356,93		
9	19014006700	1	Rp892,50	12,235	0,376	2,627	Rp92.125	1,658	0,012	0,019	Rp9.429,61	Rp1.758,64		
10	19014140633	1	Rp458,76	2,409	0,056	0,393	Rp50.625	2,147	0,055	0,119	Rp1.043,90	Rp6.028,56		
11	19014113620	1	Rp216,87	53,956	1,443	10,093	Rp35.750	4,079	0,012	0,051	Rp10.304,93	Rp1.806,87		
12	19014106202	1	Rp700,65	16,020	0,868	6,071	Rp55.500	1,301	0,004	0,005	Rp8.493,14	Rp290,88		
13	19014114641	1	Rp784,07	11,802	0,538	3,765	Rp99.250	1,320	0,004	0,005	Rp7.359,45	Rp535,10		

Lanjutan Tabel L6.8

Ongkos Total Metode Opsional per Supplier

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E (k)	Nk =	O.simpan	O.stockout	O.pesan	O.total
		(minggu)	(Rp/unit/minggu)	(unit)	(unit)	(unit/minggu)	(Rp/unit)	(unit)			(Rp/minggu)	(Rp/minggu)		
Supplier : Eukanuba														
untuk t=2														
1	19014006687	2	Rp892,50	26,488	0,786	5,496	Rp92.125	2,795	0,006	0,017	Rp18.049,82	Rp803,29	Rp14.520,32	Rp228.490,88
2	19014113644	2	Rp850,79	38,500	0,595	4,164	Rp90.250	4,490	0,020	0,089	Rp28.782,27	Rp4.034,64		
3	19014113637	2	Rp458,76	45,391	1,007	7,04	Rp50.625	4,324	0,013	0,055	Rp17.157,16	Rp1.385,85		
4	19014006632	2	Rp458,76	45,490	0,851	5,954	Rp50.625	4,639	0,018	0,081	Rp17.784,38	Rp2.055,57		
5	19014140640	2	Rp850,79	33,712	0,969	6,776	Rp90.250	3,269	0,006	0,021	Rp22.110,18	Rp932,14		
6	19014106080	2	Rp308,62	12,445	0,212	1,481	Rp50.875	2,175	0,021	0,046	Rp3.332,57	Rp1.160,93		
7	19014132645	2	Rp784,07	24,572	0,453	3,169	Rp99.250	3,316	0,014	0,048	Rp16.463,48	Rp2.364,00		
8	19014006588	2	Rp133,46	25,680	0,232	1,625	Rp22.000	9,051	0,188	1,703	Rp3.406,50	Rp18.729,46		
9	19014006700	2	Rp892,50	16,933	0,376	2,627	Rp92.125	2,271	0,012	0,026	Rp12.455,88	Rp1.204,03		
10	19014140633	2	Rp458,76	2,803	0,056	0,393	Rp50.625	2,940	0,055	0,163	Rp1.154,82	Rp4.127,35		
11	19014113620	2	Rp216,87	74,389	1,443	10,093	Rp35.750	5,585	0,012	0,069	Rp13.645,72	Rp1.237,04		
12	19014106202	2	Rp700,65	23,147	0,868	6,071	Rp55.500	1,782	0,004	0,007	Rp11.361,04	Rp199,15		
13	19014114641	2	Rp784,07	16,625	0,538	3,765	Rp99.250	1,808	0,004	0,007	Rp9.666,95	Rp366,34		
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp300,38	23,664	0,422	2,953	Rp95.000	0,651	0,005	0,003	Rp5.651,87	Rp99,03	Rp8.525,99	Rp31.020,79
2	7896642900500	3	Rp306,91	52,403	1,202	8,408	Rp55.000	1,989	0,005	0,010	Rp11.846,22	Rp181,98		
3	73893004004	3	Rp227,99	25,300	0,427	2,991	Rp45.430	0,479	0,009	0,004	Rp4.648,74	Rp66,97		
untuk t = 4														
1	7896642901439	4	Rp300,38	26,830	0,422	2,953	Rp95.000	0,747	0,005	0,004	Rp6.159,39	Rp85,27	Rp6.394,49	Rp31.210,43
2	7896642900500	4	Rp306,91	61,457	1,202	8,408	Rp55.000	2,284	0,005	0,011	Rp13.335,25	Rp156,70		
3	73893004004	4	Rp227,99	28,431	0,427	2,991	Rp45.430	0,550	0,009	0,005	Rp5.021,67	Rp57,67		

Contoh Perhitungan : 8994571004777

Setelah mendapat k, E(k) didapat dari tabel gamma, E(k) → 0,002

$$Nk = \sigma_{L+t} * E(k) = 2,647 * 0,002 = 0,00545$$

Ongkos simpan =

$$H * \left(E - \mu_t - \frac{Rxt}{2} + Nk \right) = Rp.538,97 * \left(86,792 - 4,553 - \frac{31,839 * 1}{2} + 0,005 \right) = Rp.35.747,33$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} * Nk = \frac{Rp.116000}{1} * 0,00545 = Rp.632,2$$

$$\text{Ongkos pesan} = C = Rp.32.480,93 / t = Rp.32.480,93 / 1 = Rp.32.480,93$$

Perhitungan Pola Q

Tabel L7.1

Data – Data Pengendalian Metode Q Usulan

No	Kode Barang	R (unit/ minggu)	σ (unit)	C (Rp/pesan)	P (Rp/ unit)	i per minggu(%)	H (Rp/unit/ minggu)	L (minggu)	π (Rp/unit)	μ_L (unit)	σ_L (unit)
Supplier : HMI											
1	8994571004777	31,839	2,476	Rp12.937,297	Rp204.000	0,264%	Rp538,97	0,143	Rp116.000,00	4,553	0,936
2	8994571004760	23,749	3,081	Rp12.937,297	Rp216.000	0,264%	Rp570,67	0,143	Rp124.000,00	3,396	1,165
Supplier : Eukanuba											
1	19014006687	5,496	1,909	Rp12.937,297	Rp387.875	0,230%	Rp892,50	0,143	Rp92.125,00	0,786	0,722
2	19014113644	4,164	3,067	Rp12.937,297	Rp369.750	0,230%	Rp850,79	0,143	Rp90.250,00	0,595	1,160
3	19014113637	7,040	2,954	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	1,007	1,117
4	19014006632	5,954	3,169	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	0,851	1,198
5	19014140640	6,776	2,233	Rp12.937,297	Rp369.750	0,230%	Rp850,79	0,143	Rp90.250,00	0,969	0,844
6	19014106080	1,481	1,486	Rp12.937,297	Rp134.125	0,230%	Rp308,62	0,143	Rp50.875,00	0,212	0,562
7	19014132645	3,169	2,265	Rp12.937,297	Rp340.750	0,230%	Rp784,07	0,143	Rp99.250,00	0,453	0,857
8	19014006588	1,625	6,183	Rp12.937,297	Rp58.000	0,230%	Rp133,46	0,143	Rp22.000,00	0,232	2,338
9	19014006700	2,627	1,551	Rp12.937,297	Rp387.875	0,230%	Rp892,50	0,143	Rp92.125,00	0,376	0,587
10	19014140633	0,393	2,008	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	0,056	0,759
11	19014113620	10,093	3,815	Rp12.937,297	Rp94.250	0,230%	Rp216,87	0,143	Rp35.750,00	1,443	1,443
12	19014106202	6,071	1,217	Rp12.937,297	Rp304.500	0,230%	Rp700,65	0,143	Rp55.500,00	0,868	0,460
13	19014114641	3,765	1,235	Rp12.937,297	Rp340.750	0,230%	Rp784,07	0,143	Rp99.250,00	0,538	0,467
Supplier : Setrasari											
1	7896642901439	2,953	0,367	Rp12.937,297	Rp230.000	0,131%	Rp300,38	0,143	Rp95.000,00	0,422	0,139
2	7896642900500	8,408	1,122	Rp12.937,297	Rp235.000	0,131%	Rp306,91	0,143	Rp55.000,00	1,202	0,424
3	73893004004	2,991	0,27	Rp12.937,297	Rp174.570	0,131%	Rp227,99	0,143	Rp45.430,00	0,428	0,102

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit/ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H= Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp. 204.000 = Rp. 538,968$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

$\mu_L = \text{per min taan pada saat lead time (unit)} = R * L = 31,839 * 0,143 = 4,553$

$\sigma_L = \text{s tan dar deviasi pada saat lead time (unit / min ggu)} = \sigma * \sqrt{L} = 2,476 * \sqrt{0,143} = 0,936$



Tabel L7.2
Pengolahan Metode Q Usulan

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk = $\sigma_L * E(k)$	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} $ <0,1??	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	39,096	0,00567	2,532	0,00182	0,001701	39,393	0,297	-	-	-
2	8994571004760	32,814	0,00632	2,494	0,00205	0,002384	33,187	0,373	-	-	-
Supplier : Eukanuba											
1	19014006687	12,623	0,02177	2,793	0,014894149	0,010752	13,098	0,474	-	-	-
2	19014113644	11,253	0,02484	4,006	0,045432089	0,052692	13,160	1,907	-	-	-
3	19014113637	19,927	0,02501	4,066	0,029855521	0,033351	21,187	1,260	-	-	-
4	19014006632	18,325	0,02713	4,139	0,040640835	0,048703	19,995	1,670	-	-	-
5	19014140640	14,356	0,01958	3,372	0,015152264	0,012795	14,982	0,627	-	-	-
6	19014106080	11,144	0,04365	1,2975	0,045301819	0,025457	11,689	0,545	-	-	-
7	19014132645	10,226	0,02486	2,966	0,032854679	0,028141	11,276	1,050	-	-	-
8	19014006588	17,747	0,06215	0,01979	0,230665014	0,539323	24,573	6,826	-	-	-
9	19014006700	8,726	0,03118	1,898	0,024435126	0,014332	9,161	0,434	-	-	-
10	19014140633	4,708	0,09794	2,98E-08	0,055549797	0,042181	5,081	0,374	-	-	-
11	19014113620	34,702	0,02043	5,6145	0,02948	0,042529	36,684	1,982	-	-	-
12	19014106202	14,973	0,03020	1,911	0,009844935	0,004531	15,117	0,145	OK	1,748	15,117
13	19014114641	11,146	0,02286	1,7996	0,009768956	0,004562	11,339	0,193	-	-	-
Supplier : setrasari											
1	7896642901439	15,948	0,01679	2,125	0,00605	0,000839	15,997	0,049	OK	0,717	15,997
2	7896642900500	26,624	0,01736	2,112	0,00628	0,002663	26,774	0,150	-	-	-
3	73893004004	18,423	0,02999	1,881	0,01164	0,001188	18,462	0,038	OK	0,620	18,462

Lanjutan Tabel L7.2
Pengolahan Metode Q Usulan

No	Kode Barang	Q lama (unit)	F(k)	k	E (k)	Nk = $\sigma_L * E(k)$	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} $ <0,1??	B= $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	39,393	0,00572	2,5292	0,001834239	0,001717	39,396	0,003	OK	6,921	39,396
2	8994571004760	33,187	0,00639	2,49	0,002071675	0,002414	33,192	0,005	OK	6,297	33,192
Supplier : Eukanuba											
1	19014006687	13,098	0,02256	2,768	0,015448267	0,011152	13,115	0,017	OK	2,784	13,115
2	19014113644	13,160	0,02893	3,744	0,052462006	0,060845	13,431	0,271	-	-	-
3	19014113637	21,187	0,02655	3,9955	0,031672353	0,035380	21,261	0,074	OK	5,470	21,261
4	19014006632	19,995	0,02953	4,0154	0,044139866	0,052896	20,133	0,137	-	-	-
5	19014140640	14,982	0,02042	3,3399	0,015794308	0,013337	15,008	0,026	OK	3,789	15,008
6	19014106080	11,689	0,04568	1,2563	0,047141553	0,026491	11,710	0,022	OK	0,918	11,710
7	19014132645	11,276	0,02734	2,847	0,035958073	0,030799	11,370	0,094	OK	2,892	11,370
8	19014006588	24,573	0,08405	0,001796	0,231908857	0,542231	24,604	0,032	OK	0,237	24,604
9	19014006700	9,161	0,03268	1,8623	0,025574887	0,015000	9,180	0,020	OK	1,468	9,180
10	19014140633	5,081	0,10489	7,1E-09	0,055549799	0,042181	5,081	0,000	OK	0,056	5,081
11	19014113620	36,684	0,02157	5,536	0,031125509	0,044903	36,792	0,108	-	-	-
13	19014114641	11,339	0,02324	1,7924	0,009934915	0,004640	11,343	0,003	OK	1,375	11,343
Supplier : setrasari											
2	7896642900500	26,774	0,01746	2,10931	0,006314826	0,002679	26,775	0,001	OK	2,097	26,775

Lanjutan Tabel L7.2
Pengolahan Metode Q Usulan

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk = $\sigma_L * E(k)$	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1?$	B= $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
2	19014113644	13,431	0,02951	3,7106	0,053437934	0,061977	13,468	0,037	OK	4,899	13,468
4	19014006632	20,133	0,02973	4,0057	0,044427254	0,053240	20,144	0,011	OK	5,652	20,144
11	19014113620	36,792	0,02163	5,532	0,031211909	0,045028	36,797	0,006	OK	9,424	36,797

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$Q_{Lama} = \sqrt{\frac{2RC}{H}} = \sqrt{\frac{2 * 31,839 * Rp.12.937,297}{Rp.538,97}} = 39,096 \text{ unit}$$

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.538,968 * 39,096}{Rp.116.000 * 31,839 + Rp.538,968 * 39,096} = 0,00567$$

Cari k = 2,532 (tabel normal) → E(k) = 0,00182

$$Nk = \sigma_L * E(k) = 0,936 * 0,00182 = 0,00172$$

$$Q_{baru} = \sqrt{\frac{2R(C + \pi Nk)}{H}} = \sqrt{\frac{2 * 31,839 * (Rp.12.937,297 + Rp.116.000 * 0,00172)}{Rp.538,968}} = 39,393 \text{ unit}$$

$$|Q_{baru} - Q_{lama}| < 0.1 \text{ optimal ??}$$

$$0.1 = \text{toleransi} = \epsilon$$

Jika belum optimal lakukan perhitungan dari awal sampai optimal

Tabel L7.3

Ongkos Total Metode Q Usulan

No	Kode Barang	R (unit/ minggu)	Q baru (unit)	C (Rp/pesan)	B (unit)	μ_L (Unit)	H	Nk	π	O.pesan	O.simpan	O.stockout	O.total
Supplier : HMI													
1	8994571004777	31,839	39.39580	Rp12.937,297	6,92102	4,552906	Rp538,97	0,00172	Rp116.000	Rp10.455,53	Rp11.893,80	Rp161,00	Rp43.108,78
2	8994571004760	23,749	33,19158	Rp12.937,297	6,29711	3,396036	Rp570,67	0,00241	Rp124.000	Rp9.256,61	Rp11.127,69	Rp214,15	
Supplier : Eukanuba													
1	19014006687	5,496	13,11493	Rp12.937,297	2,78419	0,785988	Rp892,50	0,01115	Rp92.125	Rp5.421,97	Rp7.645,89	Rp430,57	Rp131.864,43
2	19014113644	4,164	13,46817	Rp12.937,297	4,89900	0,595464	Rp850,79	0,06198	Rp92.126	Rp3.999,95	Rp9.443,48	Rp1.765,32	
3	19014113637	7,040	21,26135	Rp12.937,297	5,46998	1,006744	Rp458,76	0,03538	Rp92.127	Rp4.283,86	Rp6.940,74	Rp1.079,29	
4	19014006632	5,954	20,14379	Rp12.937,297	5,65173	0,851422	Rp458,76	0,05324	Rp92.128	Rp3.823,94	Rp6.847,22	Rp1.449,77	
5	19014140640	6,776	15,00848	Rp12.937,297	3,78927	0,969004	Rp850,79	0,01334	Rp92.129	Rp5.841,12	Rp8.795,38	Rp554,76	
6	19014106080	1,481	11,71031	Rp12.937,297	0,91779	0,211831	Rp308,62	0,02649	Rp92.130	Rp1.636,55	Rp2.033,08	Rp308,73	
7	19014132645	3,169	11,37049	Rp12.937,297	2,89167	0,453167	Rp784,07	0,03080	Rp92.131	Rp3.605,67	Rp6.393,70	Rp790,83	
8	19014006588	1,625	24,60418	Rp12.937,297	0,23650	0,232304	Rp133,46	0,54223	Rp92.132	Rp854,19	Rp1.714,74	Rp3.298,42	
9	19014006700	2,627	9,18034	Rp12.937,297	1,46786	0,375590	Rp892,50	0,01500	Rp92.133	Rp3.701,37	Rp5.084,96	Rp395,39	
10	19014140633	0,393	5,08132	Rp12.937,297	0,05619	0,056189	Rp458,76	0,04218	Rp92.134	Rp1.000,43	Rp1.184,91	Rp300,52	
11	19014113620	10,093	36,79740	Rp12.937,297	9,42409	1,443323	Rp216,87	0,04503	Rp92.135	Rp3.548,57	Rp5.730,66	Rp1.137,94	
12	19014106202	6,071	15,11740	Rp12.937,297	1,74755	0,868082	Rp700,65	0,00453	Rp92.136	Rp5.195,06	Rp5.915,41	Rp167,63	
13	19014114641	3,765	11,34263	Rp12.937,297	1,37542	0,538335	Rp784,07	0,00464	Rp92.137	Rp4.293,85	Rp5.106,65	Rp141,88	
Supplier : setrasari													
1	7896642901439	2,953	15,99736	Rp12.937,297	0,71716	0,422243	Rp300,38	0,00084	Rp95.000	Rp2.387,93	Rp2.491,48	Rp14,71	Rp17.640,31
2	7896642900500	8,408	26,77533	Rp12.937,297	2,09729	1,202332	Rp306,91	0,00268	Rp55.000	Rp4.062,53	Rp4.384,30	Rp46,27	
3	73893004004	2,991	18,46156	Rp12.937,297	0,61970	0,427665	Rp227,99	0,00119	Rp45.430	Rp2.095,77	Rp2.148,56	Rp8,74	

Contoh Perhitungan : 8994571004777

B = reorder point (unit)

Nk = jumlah unit *lost sales* selama *lead time* (unit/ bulan)

π = biaya *stock out* (Rp/ unit)

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{31,839}{39,3958} * Rp.12.937,297 = Rp.10.455,53$$

$$\begin{aligned} \text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.538,968 * \left(\frac{39,3958}{2} + 6,921 - 4,533 + 0,00172 \right) \\ &= Rp.11.893,80 \end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{31,839}{39.3958} * 0,00172 * Rp.116.000 = Rp.161,00$$

TABEL GAMMA

- Kode : 19014006687

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.786 &= \alpha\beta & 0.722 &= \sqrt{\frac{0.786}{\beta}}\beta \\ \alpha &= 0.786 / \beta & 0.5213 &= \frac{0.786}{\beta}\beta^2 \\ \rightarrow \alpha &= 0.786 / 0.6632 & 0.5213 &= 0.786\beta \rightarrow \beta = 0.6632 \\ \alpha &= 1.185 & & \end{aligned}$$

Pola Q Saat Ini

Tabel L8.1
Tabel Gamma Pola Q Saat Ini Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.90	1.185	0.6632	0.01863	2.185	0.085	0.054	0.01274
2.91	1.185	0.6632	0.01836	2.185	0.084	0.053	0.01255
2.92	1.185	0.6632	0.01809	2.185	0.083	0.053	0.01237
2.93	1.185	0.6632	0.01783	2.185	0.082	0.052	0.01219
2.94	1.185	0.6632	0.01758	2.185	0.081	0.052	0.01201
2.95	1.185	0.6632	0.01732	2.185	0.080	0.051	0.01184
2.96	1.185	0.6632	0.01707	2.185	0.079	0.051	0.01167
2.97	1.185	0.6632	0.01682	2.185	0.078	0.050	0.01150
2.98	1.185	0.6632	0.01658	2.185	0.077	0.049	0.01133
2.99	1.185	0.6632	0.01634	2.185	0.076	0.049	0.01117
3.00	1.185	0.6632	0.01611	2.185	0.075	0.048	0.01100
3.01	1.185	0.6632	0.01587	2.185	0.075	0.048	0.01084

Pola P

Tabel L8.2
Tabel Gamma Pola P Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.350	1.185	0.6632	0.00967	2.185	0.050	0.032	0.00659
3.351	1.185	0.6632	0.00965	2.185	0.050	0.032	0.00658
3.352	1.185	0.6632	0.00964	2.185	0.049	0.032	0.00657
3.353	1.185	0.6632	0.00962	2.185	0.049	0.032	0.00656
3.354	1.185	0.6632	0.00961	2.185	0.049	0.032	0.00655
3.355	1.185	0.6632	0.00960	2.185	0.049	0.032	0.00654
3.356	1.185	0.6632	0.00958	2.185	0.049	0.032	0.00653
3.357	1.185	0.6632	0.00957	2.185	0.049	0.032	0.00652
3.358	1.185	0.6632	0.00955	2.185	0.049	0.032	0.00651
3.359	1.185	0.6632	0.00954	2.185	0.049	0.032	0.00650
3.360	1.185	0.6632	0.00953	2.185	0.049	0.032	0.00649
3.361	1.185	0.6632	0.00951	2.185	0.049	0.032	0.00648

Lanjutan Tabel L8.2
Tabel Gamma Pola P Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.8830	1.185	0.6632	0.01910	2.185	0.087	0.055	0.01306
2.8831	1.185	0.6632	0.01909	2.185	0.087	0.055	0.01306
2.8832	1.185	0.6632	0.01909	2.185	0.087	0.055	0.01305
2.8833	1.185	0.6632	0.01909	2.185	0.087	0.055	0.01305
2.8834	1.185	0.6632	0.01908	2.185	0.087	0.055	0.01305
2.8835	1.185	0.6632	0.01908	2.185	0.087	0.055	0.01305
2.8836	1.185	0.6632	0.01908	2.185	0.087	0.055	0.01305
2.8837	1.185	0.6632	0.01908	2.185	0.087	0.055	0.01304
2.8838	1.185	0.6632	0.01907	2.185	0.087	0.055	0.01304
2.8839	1.185	0.6632	0.01907	2.185	0.087	0.055	0.01304
2.8840	1.185	0.6632	0.01907	2.185	0.087	0.055	0.01304
2.8841	1.185	0.6632	0.01906	2.185	0.087	0.055	0.01304

Pola Q Usulan

Tabel L8.3
Tabel Gamma Pola Q Usulan Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.790	1.185	0.6632	0.02186	2.185	0.097	0.061	0.01496
2.791	1.185	0.6632	0.02183	2.185	0.097	0.061	0.01494
2.792	1.185	0.6632	0.02180	2.185	0.096	0.061	0.01492
2.793	1.185	0.6632	0.02176	2.185	0.096	0.061	0.01489
2.794	1.185	0.6632	0.02173	2.185	0.096	0.061	0.01487
2.795	1.185	0.6632	0.02170	2.185	0.096	0.061	0.01485
2.796	1.185	0.6632	0.02167	2.185	0.096	0.061	0.01483
2.797	1.185	0.6632	0.02164	2.185	0.096	0.061	0.01481
2.798	1.185	0.6632	0.02161	2.185	0.096	0.060	0.01479
2.799	1.185	0.6632	0.02158	2.185	0.096	0.060	0.01476
2.800	1.185	0.6632	0.02154	2.185	0.096	0.060	0.01474
2.801	1.185	0.6632	0.02151	2.185	0.095	0.060	0.01472

Lanjutan Tabel L8.3
Tabel Gamma Pola Q Usulan Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.760	1.185	0.6632	0.02283	2.185	0.100	0.063	0.01563
2.761	1.185	0.6632	0.02280	2.185	0.100	0.063	0.01561
2.762	1.185	0.6632	0.02277	2.185	0.100	0.063	0.01558
2.763	1.185	0.6632	0.02273	2.185	0.100	0.063	0.01556
2.764	1.185	0.6632	0.02270	2.185	0.100	0.063	0.01554
2.765	1.185	0.6632	0.02267	2.185	0.099	0.063	0.01552
2.766	1.185	0.6632	0.02264	2.185	0.099	0.063	0.01549
2.767	1.185	0.6632	0.02260	2.185	0.099	0.063	0.01547
2.768	1.185	0.6632	0.02257	2.185	0.099	0.062	0.01545
2.769	1.185	0.6632	0.02254	2.185	0.099	0.062	0.01543
2.770	1.185	0.6632	0.02250	2.185	0.099	0.062	0.01540
2.771	1.185	0.6632	0.02247	2.185	0.099	0.062	0.01538

Pola Optional

Tabel L8.4
Tabel Gamma Pola Optional Item 19014006687

Item : 19014006687							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.3800	1.185	0.6632	0.00925	2.185	0.048	0.031	0.00630
3.3810	1.185	0.6632	0.00924	2.185	0.048	0.031	0.00630
3.3820	1.185	0.6632	0.00922	2.185	0.048	0.031	0.00629
3.3830	1.185	0.6632	0.00921	2.185	0.048	0.031	0.00628
3.3840	1.185	0.6632	0.00920	2.185	0.048	0.031	0.00627
3.3850	1.185	0.6632	0.00918	2.185	0.048	0.031	0.00626
3.3860	1.185	0.6632	0.00917	2.185	0.047	0.031	0.00625
3.3870	1.185	0.6632	0.00916	2.185	0.047	0.031	0.00624
3.3880	1.185	0.6632	0.00914	2.185	0.047	0.031	0.00623
3.3890	1.185	0.6632	0.00913	2.185	0.047	0.031	0.00622
3.3900	1.185	0.6632	0.00912	2.185	0.047	0.031	0.00621
3.3910	1.185	0.6632	0.00910	2.185	0.047	0.031	0.00620

- Kode : 19014113644

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.595 &= \alpha\beta & 1.16 &= \sqrt{\frac{0.595}{\beta}}\beta \\ \alpha &= 0.595 / \beta & & \\ \rightarrow \alpha &= 0.595 / 2.262 & 1.3456 &= \frac{0.595}{\beta}\beta^2 \\ \alpha &= 0.263 & 1.3456 &= 0.595\beta \rightarrow \beta = 2.262 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.5
Tabel Gamma Pola Q Saat Ini Item 19014113644

Item : 19014113644							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
4.2	0.263	2.262	0.02222	1.263	0.226	0.093	0.04087
4.201	0.263	2.262	0.02220	1.263	0.225	0.093	0.04085
4.202	0.263	2.262	0.02219	1.263	0.225	0.093	0.04083
4.203	0.263	2.262	0.02218	1.263	0.225	0.093	0.04081
4.204	0.263	2.262	0.02217	1.263	0.225	0.093	0.04078
4.205	0.263	2.262	0.02215	1.263	0.225	0.093	0.04076
4.206	0.263	2.262	0.02214	1.263	0.225	0.093	0.04074
4.207	0.263	2.262	0.02213	1.263	0.225	0.093	0.04072
4.208	0.263	2.262	0.02212	1.263	0.225	0.093	0.04070
4.209	0.263	2.262	0.02210	1.263	0.225	0.093	0.04067
4.210	0.263	2.262	0.02209	1.263	0.225	0.093	0.04065
4.211	0.263	2.262	0.02208	1.263	0.225	0.093	0.04063
4.212	0.263	2.262	0.02206	1.263	0.224	0.093	0.04061

Pola P

Tabel L8.6
Tabel Gamma Pola P Item 19014113644

Item : 19014113644							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
5.750	0.263	2.262	0.00937	1.263	0.121	0.054	0.01789
5.751	0.263	2.262	0.00937	1.263	0.121	0.054	0.01788
5.752	0.263	2.262	0.00936	1.263	0.121	0.054	0.01787
5.753	0.263	2.262	0.00936	1.263	0.121	0.054	0.01786
5.754	0.263	2.262	0.00935	1.263	0.120	0.054	0.01785
5.755	0.263	2.262	0.00935	1.263	0.120	0.054	0.01784
5.756	0.263	2.262	0.00934	1.263	0.120	0.054	0.01784
5.757	0.263	2.262	0.00934	1.263	0.120	0.054	0.01783
5.758	0.263	2.262	0.00933	1.263	0.120	0.054	0.01782
5.759	0.263	2.262	0.00933	1.263	0.120	0.054	0.01781
5.760	0.263	2.262	0.00932	1.263	0.120	0.054	0.01780
5.761	0.263	2.262	0.00932	1.263	0.120	0.054	0.01779
5.762	0.263	2.262	0.00931	1.263	0.120	0.054	0.01778

Lanjutan Tabel L8.6
Tabel Gamma Pola P Item 19014113644

Item : 19014113644							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.520	0.263	2.262	0.01852	1.263	0.198	0.084	0.03437
4.521	0.263	2.262	0.01851	1.263	0.198	0.084	0.03436
4.522	0.263	2.262	0.01850	1.263	0.198	0.084	0.03434
4.523	0.263	2.262	0.01849	1.263	0.198	0.084	0.03432
4.524	0.263	2.262	0.01848	1.263	0.198	0.084	0.03430
4.525	0.263	2.262	0.01847	1.263	0.198	0.084	0.03428
4.526	0.263	2.262	0.01845	1.263	0.198	0.084	0.03426
4.527	0.263	2.262	0.01844	1.263	0.198	0.083	0.03424
4.528	0.263	2.262	0.01843	1.263	0.198	0.083	0.03423
4.529	0.263	2.262	0.01842	1.263	0.198	0.083	0.03421
4.530	0.263	2.262	0.01841	1.263	0.198	0.083	0.03419
4.531	0.263	2.262	0.01840	1.263	0.198	0.083	0.03417
4.532	0.263	2.262	0.01839	1.263	0.198	0.083	0.03415

Pola Q Usulan

Tabel L8.7
Tabel Gamma Pola Q Usulan Item 19014113644

Item : 19014113644							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.000	0.263	2.262	0.02493	1.263	0.244	0.100	0.04558
4.001	0.263	2.262	0.02491	1.263	0.244	0.100	0.04556
4.002	0.263	2.262	0.02490	1.263	0.244	0.100	0.04553
4.003	0.263	2.262	0.02489	1.263	0.244	0.100	0.04551
4.004	0.263	2.262	0.02487	1.263	0.244	0.100	0.04548
4.005	0.263	2.262	0.02486	1.263	0.244	0.100	0.04546
4.006	0.263	2.262	0.02484	1.263	0.244	0.100	0.04543
4.007	0.263	2.262	0.02483	1.263	0.244	0.099	0.04541
4.008	0.263	2.262	0.02481	1.263	0.243	0.099	0.04538
4.009	0.263	2.262	0.02480	1.263	0.243	0.099	0.04536
4.010	0.263	2.262	0.02478	1.263	0.243	0.099	0.04533
4.011	0.263	2.262	0.02477	1.263	0.243	0.099	0.04531
4.012	0.263	2.262	0.02476	1.263	0.243	0.099	0.04528

Lanjutan Tabel L8.7
Tabel Gamma Pola Q Usulan Item 19014113644

Item : 19014113644							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.740	0.263	2.262	0.02900	1.263	0.271	0.108	0.05258
3.741	0.263	2.262	0.02899	1.263	0.271	0.108	0.05255
3.742	0.263	2.262	0.02897	1.263	0.270	0.108	0.05252
3.743	0.263	2.262	0.02895	1.263	0.270	0.108	0.05249
3.744	0.263	2.262	0.02893	1.263	0.270	0.108	0.05246
3.745	0.263	2.262	0.02892	1.263	0.270	0.108	0.05243
3.746	0.263	2.262	0.02890	1.263	0.270	0.108	0.05240
3.747	0.263	2.262	0.02888	1.263	0.270	0.108	0.05238
3.748	0.263	2.262	0.02887	1.263	0.270	0.108	0.05235
3.749	0.263	2.262	0.02885	1.263	0.270	0.108	0.05232
3.750	0.263	2.262	0.02883	1.263	0.270	0.108	0.05229
3.751	0.263	2.262	0.02882	1.263	0.270	0.108	0.05226
3.752	0.263	2.262	0.02880	1.263	0.269	0.108	0.05223

Lanjutan Tabel L8.7
Tabel Gamma Pola Q Usulan Item 19014113644

Item : 19014113644							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.7100	0.263	2.262	0.02952	1.263	0.274	0.110	0.05346
3.7101	0.263	2.262	0.02952	1.263	0.274	0.110	0.05345
3.7102	0.263	2.262	0.02951	1.263	0.274	0.110	0.05345
3.7103	0.263	2.262	0.02951	1.263	0.274	0.109	0.05345
3.7104	0.263	2.262	0.02951	1.263	0.274	0.109	0.05344
3.7105	0.263	2.262	0.02951	1.263	0.274	0.109	0.05344
3.7106	0.263	2.262	0.02951	1.263	0.274	0.109	0.05344
3.7107	0.263	2.262	0.02950	1.263	0.274	0.109	0.05343
3.7108	0.263	2.262	0.02950	1.263	0.274	0.109	0.05343
3.7109	0.263	2.262	0.02950	1.263	0.274	0.109	0.05343
3.7110	0.263	2.262	0.02950	1.263	0.274	0.109	0.05343
3.7111	0.263	2.262	0.02950	1.263	0.274	0.109	0.05342
3.7112	0.263	2.262	0.02950	1.263	0.274	0.109	0.05342

Pola Optional

Tabel L8.8
Tabel Gamma Pola Optional Item 19014113644

Item : 19014113644							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
5.5400	0.263	2.262	0.01051	1.263	0.131	0.058	0.01998
5.5410	0.263	2.262	0.01050	1.263	0.131	0.058	0.01997
5.5420	0.263	2.262	0.01050	1.263	0.131	0.058	0.01996
5.5430	0.263	2.262	0.01049	1.263	0.131	0.058	0.01995
5.5440	0.263	2.262	0.01049	1.263	0.131	0.058	0.01994
5.5450	0.263	2.262	0.01048	1.263	0.131	0.058	0.01992
5.5460	0.263	2.262	0.01048	1.263	0.131	0.058	0.01991
5.5470	0.263	2.262	0.01047	1.263	0.131	0.058	0.01990
5.5480	0.263	2.262	0.01046	1.263	0.131	0.058	0.01989
5.5490	0.263	2.262	0.01046	1.263	0.131	0.058	0.01988
5.5500	0.263	2.262	0.01045	1.263	0.131	0.058	0.01987
5.5510	0.263	2.262	0.01045	1.263	0.131	0.058	0.01986
5.5520	0.263	2.262	0.01044	1.263	0.131	0.058	0.01985

• Kode : 19014113637

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 1.007 &= \alpha\beta & 1.117 &= \sqrt{\frac{1.007}{\beta}}\beta \\ \alpha &= 1.007 / \beta & & \\ \rightarrow \alpha &= 1.007 / 1.239 & 1.248 &= \frac{1.007}{\beta}\beta^2 \\ \alpha &= 0.813 & & \\ & & 1.248 &= 1.007\beta \rightarrow \beta = 1.239 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.9
Tabel Gamma Pola Q Saat Ini Item 19014113637

Item : 19014113637							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
4.870	0.813	1.239	0.01272	1.813	0.077	0.062	0.01525
4.871	0.813	1.239	0.01271	1.813	0.077	0.062	0.01523
4.872	0.813	1.239	0.01269	1.813	0.077	0.062	0.01522
4.873	0.813	1.239	0.01268	1.813	0.076	0.062	0.01521
4.874	0.813	1.239	0.01267	1.813	0.076	0.062	0.01520
4.875	0.813	1.239	0.01266	1.813	0.076	0.062	0.01518
4.876	0.813	1.239	0.01265	1.813	0.076	0.062	0.01517
4.877	0.813	1.239	0.01264	1.813	0.076	0.062	0.01516
4.878	0.813	1.239	0.01263	1.813	0.076	0.062	0.01515
4.879	0.813	1.239	0.01262	1.813	0.076	0.062	0.01513
4.880	0.813	1.239	0.01261	1.813	0.076	0.062	0.01512
4.881	0.813	1.239	0.01260	1.813	0.076	0.061	0.01511

Pola P

Tabel L8.10
Tabel Gamma Pola P Item 19014113637

Item : 19014113637							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.280	0.813	1.239	0.00902	1.813	0.058	0.048	0.01083
5.281	0.813	1.239	0.00901	1.813	0.058	0.048	0.01083
5.282	0.813	1.239	0.00900	1.813	0.058	0.048	0.01082
5.283	0.813	1.239	0.00900	1.813	0.058	0.048	0.01081
5.284	0.813	1.239	0.00899	1.813	0.058	0.047	0.01080
5.285	0.813	1.239	0.00898	1.813	0.058	0.047	0.01079
5.286	0.813	1.239	0.00897	1.813	0.058	0.047	0.01078
5.287	0.813	1.239	0.00897	1.813	0.058	0.047	0.01077
5.288	0.813	1.239	0.00896	1.813	0.058	0.047	0.01076
5.289	0.813	1.239	0.00895	1.813	0.058	0.047	0.01075
5.290	0.813	1.239	0.00894	1.813	0.058	0.047	0.01075
5.291	0.813	1.239	0.00894	1.813	0.058	0.047	0.01074

Lanjutan Tabel L8.10
Tabel Gamma Pola P Item 19014113637

Item : 19014113637							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.460	0.813	1.239	0.01795	1.813	0.101	0.080	0.02147
4.461	0.813	1.239	0.01793	1.813	0.101	0.080	0.02145
4.462	0.813	1.239	0.01791	1.813	0.101	0.080	0.02143
4.463	0.813	1.239	0.01790	1.813	0.101	0.080	0.02142
4.464	0.813	1.239	0.01788	1.813	0.101	0.080	0.02140
4.465	0.813	1.239	0.01787	1.813	0.100	0.080	0.02138
4.466	0.813	1.239	0.01785	1.813	0.100	0.080	0.02136
4.467	0.813	1.239	0.01784	1.813	0.100	0.080	0.02135
4.468	0.813	1.239	0.01782	1.813	0.100	0.080	0.02133
4.469	0.813	1.239	0.01781	1.813	0.100	0.080	0.02131
4.470	0.813	1.239	0.01779	1.813	0.100	0.080	0.02129
4.471	0.813	1.239	0.01778	1.813	0.100	0.079	0.02127

Pola Q Usulan

Tabel L8.11
Tabel Gamma Pola Q Usulan Item 19014113637

Item : 19014113637							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.060	0.813	1.239	0.02514	1.813	0.131	0.102	0.03001
4.061	0.813	1.239	0.02512	1.813	0.131	0.102	0.02998
4.062	0.813	1.239	0.02510	1.813	0.131	0.102	0.02996
4.063	0.813	1.239	0.02507	1.813	0.131	0.102	0.02993
4.064	0.813	1.239	0.02505	1.813	0.131	0.102	0.02991
4.065	0.813	1.239	0.02503	1.813	0.131	0.102	0.02988
4.066	0.813	1.239	0.02501	1.813	0.131	0.102	0.02986
4.067	0.813	1.239	0.02499	1.813	0.131	0.102	0.02983
4.068	0.813	1.239	0.02497	1.813	0.130	0.102	0.02981
4.069	0.813	1.239	0.02495	1.813	0.130	0.102	0.02978
4.070	0.813	1.239	0.02493	1.813	0.130	0.101	0.02976
4.071	0.813	1.239	0.02491	1.813	0.130	0.101	0.02973

Lanjutan Tabel L8.11
Tabel Gamma Pola Q Usulan Item 19014113637

Item : 19014113637							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.9950	0.813	1.239	0.02656	1.813	0.137	0.106	0.03169
3.9951	0.813	1.239	0.02655	1.813	0.137	0.106	0.03168
3.9952	0.813	1.239	0.02655	1.813	0.137	0.106	0.03168
3.9953	0.813	1.239	0.02655	1.813	0.137	0.106	0.03168
3.9954	0.813	1.239	0.02655	1.813	0.137	0.106	0.03168
3.9955	0.813	1.239	0.02655	1.813	0.137	0.106	0.03167
3.9956	0.813	1.239	0.02654	1.813	0.137	0.106	0.03167
3.9957	0.813	1.239	0.02654	1.813	0.137	0.106	0.03167
3.9958	0.813	1.239	0.02654	1.813	0.137	0.106	0.03166
3.9959	0.813	1.239	0.02654	1.813	0.137	0.106	0.03166
3.9960	0.813	1.239	0.02653	1.813	0.137	0.106	0.03166
3.9961	0.813	1.239	0.02653	1.813	0.137	0.106	0.03166

Pola Optional

Lanjutan Tabel L8.12
Tabel Gamma Pola Optional Item 19014113637

Item : 19014113637							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.090	0.813	1.239	0.01057	1.813	0.066	0.054	0.01269
5.091	0.813	1.239	0.01057	1.813	0.066	0.054	0.01268
5.092	0.813	1.239	0.01056	1.813	0.066	0.054	0.01267
5.093	0.813	1.239	0.01055	1.813	0.066	0.054	0.01266
5.094	0.813	1.239	0.01054	1.813	0.066	0.054	0.01265
5.095	0.813	1.239	0.01053	1.813	0.066	0.054	0.01264
5.096	0.813	1.239	0.01052	1.813	0.066	0.054	0.01263
5.097	0.813	1.239	0.01051	1.813	0.066	0.054	0.01262
5.098	0.813	1.239	0.01050	1.813	0.066	0.054	0.01261
5.099	0.813	1.239	0.01050	1.813	0.066	0.054	0.01260
5.100	0.813	1.239	0.01049	1.813	0.066	0.053	0.01259
5.101	0.813	1.239	0.01048	1.813	0.066	0.053	0.01258

- Kode : 19014006632

$$\begin{aligned} \mu_1 &= \alpha\beta & \sigma_1 &= \sqrt{\alpha\beta} \\ 0.851 &= \alpha\beta & 1.198 &= \sqrt{\frac{0.851}{\beta}}\beta \\ \alpha &= 0.851/\beta & & \\ \rightarrow \alpha &= 0.851/1.686 & 1.435 &= \frac{0.851}{\beta}\beta^2 \\ \alpha &= 0.505 & & \\ & & 1.435 &= 0.851\beta \rightarrow \beta = 1.686 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.13
Tabel Gamma Pola Q Saat Ini Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.01	0.505	1.686	0.01502	1.505	0.115	0.075	0.02282
5.011	0.505	1.686	0.01501	1.505	0.115	0.075	0.02281
5.012	0.505	1.686	0.01500	1.505	0.115	0.075	0.02279
5.013	0.505	1.686	0.01499	1.505	0.115	0.075	0.02278
5.014	0.505	1.686	0.01498	1.505	0.115	0.075	0.02276
5.015	0.505	1.686	0.01497	1.505	0.115	0.075	0.02275
5.016	0.505	1.686	0.01496	1.505	0.115	0.075	0.02273
5.017	0.505	1.686	0.01495	1.505	0.115	0.075	0.02272
5.018	0.505	1.686	0.01494	1.505	0.115	0.075	0.02270
5.019	0.505	1.686	0.01493	1.505	0.115	0.075	0.02269
5.020	0.505	1.686	0.01492	1.505	0.115	0.075	0.02267
5.021	0.505	1.686	0.01491	1.505	0.115	0.075	0.02266

Pola P

Tabel L8.14
Tabel Gamma Pola P Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.700	0.505	1.686	0.00947	1.505	0.080	0.054	0.01452
5.710	0.505	1.686	0.00941	1.505	0.080	0.054	0.01443
5.720	0.505	1.686	0.00935	1.505	0.080	0.053	0.01433
5.730	0.505	1.686	0.00929	1.505	0.079	0.053	0.01424
5.740	0.505	1.686	0.00923	1.505	0.079	0.053	0.01415
5.750	0.505	1.686	0.00916	1.505	0.078	0.053	0.01405
5.760	0.505	1.686	0.00910	1.505	0.078	0.052	0.01396
5.770	0.505	1.686	0.00904	1.505	0.078	0.052	0.01387
5.780	0.505	1.686	0.00898	1.505	0.077	0.052	0.01378
5.790	0.505	1.686	0.00892	1.505	0.077	0.052	0.01369
5.800	0.505	1.686	0.00887	1.505	0.076	0.051	0.01360
5.810	0.505	1.686	0.00881	1.505	0.076	0.051	0.01352

Lanjutan Tabel L8.14
Tabel Gamma Pola P Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.750	0.505	1.686	0.01790	1.505	0.132	0.085	0.02709
4.751	0.505	1.686	0.01788	1.505	0.132	0.085	0.02707
4.752	0.505	1.686	0.01787	1.505	0.132	0.085	0.02705
4.753	0.505	1.686	0.01786	1.505	0.131	0.085	0.02703
4.754	0.505	1.686	0.01785	1.505	0.131	0.085	0.02702
4.755	0.505	1.686	0.01784	1.505	0.131	0.085	0.02700
4.756	0.505	1.686	0.01782	1.505	0.131	0.085	0.02698
4.757	0.505	1.686	0.01781	1.505	0.131	0.085	0.02696
4.758	0.505	1.686	0.01780	1.505	0.131	0.085	0.02695
4.759	0.505	1.686	0.01779	1.505	0.131	0.085	0.02693
4.760	0.505	1.686	0.01778	1.505	0.131	0.085	0.02691
4.761	0.505	1.686	0.01776	1.505	0.131	0.085	0.02689

Pola Q Usulan

Tabel L8.15
Tabel Gamma Pola Q Usulan Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.130	0.505	1.686	0.02729	1.505	0.180	0.113	0.04089
4.131	0.505	1.686	0.02727	1.505	0.180	0.113	0.04086
4.132	0.505	1.686	0.02726	1.505	0.180	0.113	0.04083
4.133	0.505	1.686	0.02724	1.505	0.180	0.113	0.04080
4.134	0.505	1.686	0.02722	1.505	0.180	0.113	0.04078
4.135	0.505	1.686	0.02720	1.505	0.180	0.112	0.04075
4.136	0.505	1.686	0.02718	1.505	0.180	0.112	0.04072
4.137	0.505	1.686	0.02716	1.505	0.180	0.112	0.04070
4.138	0.505	1.686	0.02714	1.505	0.180	0.112	0.04067
4.139	0.505	1.686	0.02713	1.505	0.180	0.112	0.04064
4.140	0.505	1.686	0.02711	1.505	0.180	0.112	0.04061
4.141	0.505	1.686	0.02709	1.505	0.179	0.112	0.04059

Lanjutan Tabel L8.15
Tabel Gamma Pola Q Usulan Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.0150	0.505	1.686	0.02954	1.505	0.191	0.119	0.04415
4.0151	0.505	1.686	0.02953	1.505	0.191	0.119	0.04415
4.0152	0.505	1.686	0.02953	1.505	0.191	0.119	0.04415
4.0153	0.505	1.686	0.02953	1.505	0.191	0.119	0.04414
4.0154	0.505	1.686	0.02953	1.505	0.191	0.119	0.04414
4.0155	0.505	1.686	0.02953	1.505	0.191	0.119	0.04414
4.0156	0.505	1.686	0.02952	1.505	0.191	0.119	0.04413
4.0157	0.505	1.686	0.02952	1.505	0.191	0.119	0.04413
4.0158	0.505	1.686	0.02952	1.505	0.191	0.119	0.04413
4.0159	0.505	1.686	0.02952	1.505	0.191	0.119	0.04413
4.0160	0.505	1.686	0.02952	1.505	0.191	0.119	0.04412
4.0161	0.505	1.686	0.02951	1.505	0.191	0.119	0.04412

Lanjutan Tabel L8.15
Tabel Gamma Pola Q Usulan Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.0051	0.505	1.686	0.02974	1.505	0.192	0.119	0.04445
4.0052	0.505	1.686	0.02974	1.505	0.192	0.119	0.04444
4.0053	0.505	1.686	0.02973	1.505	0.192	0.119	0.04444
4.0054	0.505	1.686	0.02973	1.505	0.192	0.119	0.04444
4.0055	0.505	1.686	0.02973	1.505	0.192	0.119	0.04443
4.0056	0.505	1.686	0.02973	1.505	0.192	0.119	0.04443
4.0057	0.505	1.686	0.02973	1.505	0.192	0.119	0.04443
4.0058	0.505	1.686	0.02972	1.505	0.192	0.119	0.04442
4.0059	0.505	1.686	0.02972	1.505	0.192	0.119	0.04442
4.0060	0.505	1.686	0.02972	1.505	0.192	0.119	0.04442
4.0061	0.505	1.686	0.02972	1.505	0.192	0.119	0.04442
4.0062	0.505	1.686	0.02972	1.505	0.192	0.119	0.04441

Pola Optional

Lanjutan Tabel L8.16
Tabel Gamma Pola Optional Item 19014006632

Item 19014006632							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.4100	0.505	1.686	0.01149	1.505	0.094	0.062	0.01755
5.4110	0.505	1.686	0.01148	1.505	0.094	0.062	0.01754
5.4120	0.505	1.686	0.01148	1.505	0.094	0.062	0.01753
5.4130	0.505	1.686	0.01147	1.505	0.093	0.062	0.01752
5.4140	0.505	1.686	0.01146	1.505	0.093	0.062	0.01751
5.4150	0.505	1.686	0.01145	1.505	0.093	0.062	0.01749
5.4160	0.505	1.686	0.01144	1.505	0.093	0.062	0.01748
5.4170	0.505	1.686	0.01144	1.505	0.093	0.062	0.01747
5.4180	0.505	1.686	0.01143	1.505	0.093	0.062	0.01746
5.4190	0.505	1.686	0.01142	1.505	0.093	0.062	0.01745
5.4200	0.505	1.686	0.01141	1.505	0.093	0.062	0.01744
5.4210	0.505	1.686	0.01141	1.505	0.093	0.062	0.01743

- Kode : 19014140640

$$\mu_i = \alpha\beta$$

$$0.969 = \alpha\beta$$

$$\alpha = 0.969 / \beta$$

$$\rightarrow \alpha = 0.969 / 0.735$$

$$\alpha = 1.318$$

$$\sigma_i = \sqrt{\alpha}\beta$$

$$0.844 = \sqrt{\frac{0.969}{\beta}}\beta$$

$$0.712 = \frac{0.969}{\beta}\beta^2$$

$$0.712 = 0.969\beta \rightarrow \beta = 0.735$$

Pola Q Saat Ini

Tabel L8.17
Tabel Gamma Pola Q Saat Ini Item 19014140640

Item 19014140640							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.18	1.318	0.735	0.00692	2.318	0.035	0.029	0.00531
4.181	1.318	0.735	0.00691	2.318	0.035	0.029	0.00530
4.182	1.318	0.735	0.00690	2.318	0.035	0.029	0.00529
4.183	1.318	0.735	0.00689	2.318	0.035	0.029	0.00529
4.184	1.318	0.735	0.00688	2.318	0.035	0.029	0.00528
4.185	1.318	0.735	0.00687	2.318	0.035	0.029	0.00527
4.186	1.318	0.735	0.00686	2.318	0.035	0.029	0.00527
4.187	1.318	0.735	0.00685	2.318	0.035	0.029	0.00526
4.188	1.318	0.735	0.00684	2.318	0.035	0.029	0.00525
4.189	1.318	0.735	0.00684	2.318	0.035	0.029	0.00525
4.190	1.318	0.735	0.00683	2.318	0.035	0.029	0.00524
4.191	1.318	0.735	0.00682	2.318	0.035	0.029	0.00523

Pola P

Tabel L8.18
Tabel Gamma Pola P Item 19014140640

Item 19014140640							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.9400	1.318	0.735	0.00943	2.318	0.046	0.037	0.00725
3.9410	1.318	0.735	0.00942	2.318	0.046	0.037	0.00724
3.9420	1.318	0.735	0.00941	2.318	0.046	0.037	0.00723
3.9430	1.318	0.735	0.00940	2.318	0.046	0.037	0.00723
3.9440	1.318	0.735	0.00938	2.318	0.046	0.037	0.00722
3.9450	1.318	0.735	0.00937	2.318	0.046	0.037	0.00721
3.9460	1.318	0.735	0.00936	2.318	0.046	0.037	0.00720
3.9470	1.318	0.735	0.00935	2.318	0.046	0.037	0.00719
3.9480	1.318	0.735	0.00934	2.318	0.045	0.037	0.00718
3.9490	1.318	0.735	0.00932	2.318	0.045	0.037	0.00717
3.9500	1.318	0.735	0.00931	2.318	0.045	0.037	0.00716
3.9510	1.318	0.735	0.00930	2.318	0.045	0.037	0.00715

Lanjutan Tabel L8.18
Tabel Gamma Pola P Item 19014140640

Item 19014140640							
k	alpha	beta	F(k)	alpha+1	G(k)	k*F(k)	E(k)
3.4160	1.318	0.735	0.01852	2.318	0.080	0.063	0.01431
3.4161	1.318	0.735	0.01852	2.318	0.080	0.063	0.01431
3.4162	1.318	0.735	0.01851	2.318	0.080	0.063	0.01431
3.4163	1.318	0.735	0.01851	2.318	0.080	0.063	0.01431
3.4164	1.318	0.735	0.01851	2.318	0.080	0.063	0.01431
3.4165	1.318	0.735	0.01851	2.318	0.080	0.063	0.01430
3.4166	1.318	0.735	0.01850	2.318	0.080	0.063	0.01430
3.4167	1.318	0.735	0.01850	2.318	0.080	0.063	0.01430
3.4168	1.318	0.735	0.01850	2.318	0.080	0.063	0.01430
3.4169	1.318	0.735	0.01850	2.318	0.080	0.063	0.01430
3.4170	1.318	0.735	0.01849	2.318	0.080	0.063	0.01430
3.4171	1.318	0.735	0.01849	2.318	0.080	0.063	0.01429

Pola Q Usulan

Tabel L8.19
Tabel Gamma Pola Q Usulan Item 19014140640

Item 19014140640							
k	alpha	beta	F(k)	alpha+1	G(k)	k*F(k)	E(k)
3.370	1.318	0.735	0.01964	2.318	0.084	0.066	0.01519
3.371	1.318	0.735	0.01962	2.318	0.084	0.066	0.01517
3.372	1.318	0.735	0.01959	2.318	0.084	0.066	0.01515
3.373	1.318	0.735	0.01957	2.318	0.084	0.066	0.01513
3.374	1.318	0.735	0.01954	2.318	0.084	0.066	0.01511
3.375	1.318	0.735	0.01952	2.318	0.084	0.066	0.01509
3.376	1.318	0.735	0.01949	2.318	0.083	0.066	0.01507
3.377	1.318	0.735	0.01947	2.318	0.083	0.066	0.01505
3.378	1.318	0.735	0.01944	2.318	0.083	0.066	0.01504
3.379	1.318	0.735	0.01942	2.318	0.083	0.066	0.01502
3.380	1.318	0.735	0.01939	2.318	0.083	0.066	0.01500
3.381	1.318	0.735	0.01937	2.318	0.083	0.065	0.01498

Lanjutan Tabel L8.19
Tabel Gamma Pola Q Usulan Item 19014140640

Item 19014140640							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
3.3390	1.318	0.735	0.02044	2.318	0.087	0.068	0.01581
3.3391	1.318	0.735	0.02044	2.318	0.087	0.068	0.01581
3.3392	1.318	0.735	0.02043	2.318	0.087	0.068	0.01581
3.3393	1.318	0.735	0.02043	2.318	0.087	0.068	0.01581
3.3394	1.318	0.735	0.02043	2.318	0.087	0.068	0.01580
3.3395	1.318	0.735	0.02043	2.318	0.087	0.068	0.01580
3.3396	1.318	0.735	0.02042	2.318	0.087	0.068	0.01580
3.3397	1.318	0.735	0.02042	2.318	0.087	0.068	0.01580
3.3398	1.318	0.735	0.02042	2.318	0.087	0.068	0.01580
3.3399	1.318	0.735	0.02042	2.318	0.087	0.068	0.01579
3.3400	1.318	0.735	0.02041	2.318	0.087	0.068	0.01579
3.3401	1.318	0.735	0.02041	2.318	0.087	0.068	0.01579

Pola Optional

Tabel L8.20
Tabel Gamma Pola Optional Item 19014140640

Item 19014140640							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
4.04	1.318	0.735	0.00829	2.318	0.041	0.033	0.00637
4.041	1.318	0.735	0.00828	2.318	0.041	0.033	0.00636
4.04	1.318	0.735	0.00827	2.318	0.041	0.033	0.00635
4.043	1.318	0.735	0.00826	2.318	0.041	0.033	0.00634
4.04	1.318	0.735	0.00825	2.318	0.041	0.033	0.00634
4.045	1.318	0.735	0.00824	2.318	0.041	0.033	0.00633
4.05	1.318	0.735	0.00823	2.318	0.041	0.033	0.00632
4.047	1.318	0.735	0.00821	2.318	0.041	0.033	0.00631
4.05	1.318	0.735	0.00820	2.318	0.041	0.033	0.00630
4.049	1.318	0.735	0.00819	2.318	0.041	0.033	0.00629
4.05	1.318	0.735	0.00818	2.318	0.041	0.033	0.00629
4.051	1.318	0.735	0.00817	2.318	0.041	0.033	0.00628

- Kode : 19014106080

$$\begin{aligned} \mu_1 &= \alpha\beta & \sigma_1 &= \sqrt{\alpha\beta} \\ 0.212 &= \alpha\beta & 0.562 &= \sqrt{\frac{0.212}{\beta}}\beta \\ \alpha &= 0.212 / \beta & 0.316 &= \frac{0.212}{\beta} \beta^2 \\ \rightarrow \alpha &= 0.212 / 1.489 & 0.316 &= 0.212\beta \rightarrow \beta = 1.489 \\ \alpha &= 0.142 & & \end{aligned}$$

Pola Q Saat Ini

Tabel L8.21
Tabel Gamma Pola Q Saat Ini Item 19014106080

Item 19014106080							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.050	0.142	1.489	0.02017	1.142	0.302	0.041	0.02260
2.051	0.142	1.489	0.02015	1.142	0.302	0.041	0.02258
2.052	0.142	1.489	0.02013	1.142	0.302	0.041	0.02256
2.053	0.142	1.489	0.02011	1.142	0.302	0.041	0.02254
2.054	0.142	1.489	0.02009	1.142	0.302	0.041	0.02252
2.055	0.142	1.489	0.02007	1.142	0.301	0.041	0.02250
2.056	0.142	1.489	0.02005	1.142	0.301	0.041	0.02248
2.057	0.142	1.489	0.02003	1.142	0.301	0.041	0.02246
2.058	0.142	1.489	0.02001	1.142	0.301	0.041	0.02244
2.059	0.142	1.489	0.01999	1.142	0.301	0.041	0.02242
2.060	0.142	1.489	0.01997	1.142	0.301	0.041	0.02240
2.061	0.142	1.489	0.01995	1.142	0.300	0.041	0.02238
2.062	0.142	1.489	0.01994	1.142	0.300	0.041	0.02236

Pola P

Tabel L8.22
Tabel Gamma Pola P Item 19014106080

Item 19014106080							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.370	0.142	1.489	0.00605	1.142	0.131	0.020	0.00729
3.371	0.142	1.489	0.00604	1.142	0.131	0.020	0.00728
3.372	0.142	1.489	0.00604	1.142	0.131	0.020	0.00728
3.373	0.142	1.489	0.00603	1.142	0.131	0.020	0.00727
3.374	0.142	1.489	0.00603	1.142	0.131	0.020	0.00726
3.375	0.142	1.489	0.00602	1.142	0.130	0.020	0.00726
3.376	0.142	1.489	0.00602	1.142	0.130	0.020	0.00725
3.377	0.142	1.489	0.00601	1.142	0.130	0.020	0.00725
3.378	0.142	1.489	0.00601	1.142	0.130	0.020	0.00724
3.379	0.142	1.489	0.00600	1.142	0.130	0.020	0.00723
3.380	0.142	1.489	0.00600	1.142	0.130	0.020	0.00723
3.381	0.142	1.489	0.00599	1.142	0.130	0.020	0.00722
3.382	0.142	1.489	0.00599	1.142	0.130	0.020	0.00722

Lanjutan Tabel L8.22
Tabel Gamma Pola P Item 19014106080

Item 19014106080							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.600	0.142	1.489	0.01202	1.142	0.214	0.031	0.01396
2.601	0.142	1.489	0.01201	1.142	0.214	0.031	0.01395
2.602	0.142	1.489	0.01199	1.142	0.214	0.031	0.01394
2.603	0.142	1.489	0.01198	1.142	0.213	0.031	0.01393
2.604	0.142	1.489	0.01197	1.142	0.213	0.031	0.01391
2.605	0.142	1.489	0.01196	1.142	0.213	0.031	0.01390
2.606	0.142	1.489	0.01195	1.142	0.213	0.031	0.01389
2.607	0.142	1.489	0.01194	1.142	0.213	0.031	0.01388
2.608	0.142	1.489	0.01193	1.142	0.213	0.031	0.01387
2.609	0.142	1.489	0.01192	1.142	0.213	0.031	0.01385
2.610	0.142	1.489	0.01191	1.142	0.212	0.031	0.01384
2.611	0.142	1.489	0.01190	1.142	0.212	0.031	0.01383
2.612	0.142	1.489	0.01189	1.142	0.212	0.031	0.01382

Pola Q Usulan

Tabel L8.23
Tabel Gamma Pola Q Usulan Item 19014106080

Item 19014106080							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.2970	0.142	1.489	0.04367	1.142	0.482	0.057	0.04532
1.2971	0.142	1.489	0.04367	1.142	0.482	0.057	0.04532
1.2972	0.142	1.489	0.04366	1.142	0.482	0.057	0.04531
1.2973	0.142	1.489	0.04366	1.142	0.482	0.057	0.04531
1.2974	0.142	1.489	0.04365	1.142	0.482	0.057	0.04531
1.2975	0.142	1.489	0.04365	1.142	0.482	0.057	0.04530
1.2976	0.142	1.489	0.04364	1.142	0.482	0.057	0.04530
1.2977	0.142	1.489	0.04364	1.142	0.482	0.057	0.04529
1.2978	0.142	1.489	0.04363	1.142	0.482	0.057	0.04529
1.2979	0.142	1.489	0.04363	1.142	0.482	0.057	0.04528
1.2980	0.142	1.489	0.04362	1.142	0.482	0.057	0.04528
1.2981	0.142	1.489	0.04362	1.142	0.482	0.057	0.04528
1.2982	0.142	1.489	0.04361	1.142	0.482	0.057	0.04527

Lanjutan Tabel L8.23
Tabel Gamma Pola Q Usulan Item 19014106080

Item 19014106080							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
1.2560	0.142	1.489	0.04569	1.142	0.494	0.057	0.04716
1.2561	0.142	1.489	0.04569	1.142	0.494	0.057	0.04715
1.2562	0.142	1.489	0.04568	1.142	0.494	0.057	0.04715
1.2563	0.142	1.489	0.04568	1.142	0.494	0.057	0.04714
1.2564	0.142	1.489	0.04567	1.142	0.494	0.057	0.04714
1.2565	0.142	1.489	0.04567	1.142	0.494	0.057	0.04713
1.2566	0.142	1.489	0.04566	1.142	0.494	0.057	0.04713
1.2567	0.142	1.489	0.04566	1.142	0.494	0.057	0.04712
1.2568	0.142	1.489	0.04565	1.142	0.494	0.057	0.04712
1.2569	0.142	1.489	0.04565	1.142	0.494	0.057	0.04711
1.2570	0.142	1.489	0.04564	1.142	0.494	0.057	0.04711
1.2571	0.142	1.489	0.04564	1.142	0.494	0.057	0.04711
1.2572	0.142	1.489	0.04563	1.142	0.494	0.057	0.04710

Pola Optional

Tabel L8.24
Tabel Gamma Pola Optional Item 19014106080

Item 19014106080							
k	alpha	beta	F'(k)	alpha+1	G(k)	k*F'(k)	E(k)
2.1330	0.142	1.489	0.01862	1.142	0.287	0.040	0.02099
2.1331	0.142	1.489	0.01861	1.142	0.287	0.040	0.02099
2.1332	0.142	1.489	0.01861	1.142	0.287	0.040	0.02099
2.1333	0.142	1.489	0.01861	1.142	0.287	0.040	0.02099
2.1334	0.142	1.489	0.01861	1.142	0.287	0.040	0.02098
2.1335	0.142	1.489	0.01861	1.142	0.287	0.040	0.02098
2.1336	0.142	1.489	0.01861	1.142	0.287	0.040	0.02098
2.1337	0.142	1.489	0.01860	1.142	0.287	0.040	0.02098
2.1338	0.142	1.489	0.01860	1.142	0.287	0.040	0.02098
2.1339	0.142	1.489	0.01860	1.142	0.287	0.040	0.02097
2.1340	0.142	1.489	0.01860	1.142	0.287	0.040	0.02097
2.1341	0.142	1.489	0.01860	1.142	0.287	0.040	0.02097
2.1342	0.142	1.489	0.01859	1.142	0.287	0.040	0.02097

- Kode : 19014132645

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.453 &= \alpha\beta & 0.857 &= \sqrt{\frac{0.453}{\beta}}\beta \\ \alpha &= 0.453 / \beta & & \\ \rightarrow \alpha &= 0.453 / 1.621 & 0.734 &= \frac{0.453}{\beta}\beta^2 \\ \alpha &= 0.279 & & \\ & & 0.734 &= 0.453\beta \rightarrow \beta = 1.621 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.25
Tabel Gamma Pola Q Saat Ini Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
3.860	0.279	1.621	0.01239	1.279	0.143	0.048	0.01689
3.861	0.279	1.621	0.01238	1.279	0.143	0.048	0.01688
3.862	0.279	1.621	0.01237	1.279	0.143	0.048	0.01686
3.863	0.279	1.621	0.01236	1.279	0.143	0.048	0.01685
3.864	0.279	1.621	0.01235	1.279	0.143	0.048	0.01684
3.865	0.279	1.621	0.01234	1.279	0.143	0.048	0.01683
3.866	0.279	1.621	0.01233	1.279	0.143	0.048	0.01681
3.867	0.279	1.621	0.01232	1.279	0.143	0.048	0.01680
3.868	0.279	1.621	0.01232	1.279	0.142	0.048	0.01679
3.869	0.279	1.621	0.01231	1.279	0.142	0.048	0.01678
3.870	0.279	1.621	0.01230	1.279	0.142	0.048	0.01676
3.871	0.279	1.621	0.01229	1.279	0.142	0.048	0.01675

Pola P

Tabel L8.26
Tabel Gamma Pola P Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.460	0.279	1.621	0.00788	1.279	0.102	0.035	0.01091
4.461	0.279	1.621	0.00788	1.279	0.102	0.035	0.01090
4.462	0.279	1.621	0.00787	1.279	0.102	0.035	0.01090
4.463	0.279	1.621	0.00787	1.279	0.102	0.035	0.01089
4.464	0.279	1.621	0.00786	1.279	0.102	0.035	0.01088
4.465	0.279	1.621	0.00785	1.279	0.102	0.035	0.01087
4.466	0.279	1.621	0.00785	1.279	0.102	0.035	0.01086
4.467	0.279	1.621	0.00784	1.279	0.101	0.035	0.01086
4.468	0.279	1.621	0.00784	1.279	0.101	0.035	0.01085
4.469	0.279	1.621	0.00783	1.279	0.101	0.035	0.01084
4.470	0.279	1.621	0.00782	1.279	0.101	0.035	0.01083
4.471	0.279	1.621	0.00782	1.279	0.101	0.035	0.01083

Lanjutan Tabel L8.26
Tabel Gamma Pola P Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+ 1	G(k)	k*F'(k)	E(k)
3.561	0.279	1.621	0.01559	1.279	0.169	0.056	0.02105
3.562	0.279	1.621	0.01557	1.279	0.169	0.055	0.02104
3.563	0.279	1.621	0.01556	1.279	0.169	0.055	0.02102
3.564	0.279	1.621	0.01555	1.279	0.169	0.055	0.02100
3.565	0.279	1.621	0.01554	1.279	0.169	0.055	0.02099
3.566	0.279	1.621	0.01553	1.279	0.169	0.055	0.02097
3.567	0.279	1.621	0.01551	1.279	0.169	0.055	0.02096
3.568	0.279	1.621	0.01550	1.279	0.169	0.055	0.02094
3.569	0.279	1.621	0.01549	1.279	0.169	0.055	0.02093
3.570	0.279	1.621	0.01548	1.279	0.168	0.055	0.02091
3.571	0.279	1.621	0.01547	1.279	0.168	0.055	0.02090
3.572	0.279	1.621	0.01545	1.279	0.168	0.055	0.02088

Pola Q Usulan

Tabel L8.27
Tabel Gamma Pola Q Usulan Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.960	0.279	1.621	0.02498	1.279	0.236	0.074	0.03300
2.961	0.279	1.621	0.02496	1.279	0.236	0.074	0.03298
2.962	0.279	1.621	0.02494	1.279	0.236	0.074	0.03295
2.963	0.279	1.621	0.02492	1.279	0.236	0.074	0.03293
2.964	0.279	1.621	0.02490	1.279	0.236	0.074	0.03290
2.965	0.279	1.621	0.02488	1.279	0.236	0.074	0.03288
2.966	0.279	1.621	0.02486	1.279	0.236	0.074	0.03285
2.967	0.279	1.621	0.02484	1.279	0.236	0.074	0.03283
2.968	0.279	1.621	0.02482	1.279	0.235	0.074	0.03281
2.969	0.279	1.621	0.02480	1.279	0.235	0.074	0.03278
2.970	0.279	1.621	0.02478	1.279	0.235	0.074	0.03276
2.971	0.279	1.621	0.02476	1.279	0.235	0.074	0.03273

Lanjutan Tabel L8.27
Tabel Gamma Pola Q Usulan Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.840	0.279	1.621	0.02750	1.279	0.253	0.078	0.03615
2.841	0.279	1.621	0.02748	1.279	0.252	0.078	0.03612
2.842	0.279	1.621	0.02745	1.279	0.252	0.078	0.03610
2.843	0.279	1.621	0.02743	1.279	0.252	0.078	0.03607
2.844	0.279	1.621	0.02741	1.279	0.252	0.078	0.03604
2.845	0.279	1.621	0.02739	1.279	0.252	0.078	0.03601
2.846	0.279	1.621	0.02736	1.279	0.252	0.078	0.03599
2.847	0.279	1.621	0.02734	1.279	0.252	0.078	0.03596
2.848	0.279	1.621	0.02732	1.279	0.251	0.078	0.03593
2.849	0.279	1.621	0.02730	1.279	0.251	0.078	0.03590
2.850	0.279	1.621	0.02728	1.279	0.251	0.078	0.03588
2.851	0.279	1.621	0.02726	1.279	0.251	0.078	0.03585

Pola Optional

Tabel L8.28
Tabel Gamma Pola Optional Item 19014132645

Item 19014132645							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.0800	0.279	1.621	0.01049	1.279	0.126	0.043	0.01438
4.0810	0.279	1.621	0.01048	1.279	0.126	0.043	0.01437
4.0820	0.279	1.621	0.01047	1.279	0.126	0.043	0.01436
4.0830	0.279	1.621	0.01046	1.279	0.126	0.043	0.01435
4.0840	0.279	1.621	0.01045	1.279	0.126	0.043	0.01434
4.0850	0.279	1.621	0.01045	1.279	0.126	0.043	0.01433
4.0860	0.279	1.621	0.01044	1.279	0.126	0.043	0.01431
4.0870	0.279	1.621	0.01043	1.279	0.126	0.043	0.01430
4.0880	0.279	1.621	0.01042	1.279	0.126	0.043	0.01429
4.0890	0.279	1.621	0.01041	1.279	0.126	0.043	0.01428
4.0900	0.279	1.621	0.01041	1.279	0.126	0.043	0.01427
4.0910	0.279	1.621	0.01040	1.279	0.126	0.043	0.01426

- Kode : 19014006588

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.232 &= \alpha\beta & 2.338 &= \sqrt{\frac{0.232}{\beta}}\beta \\ \alpha &= 0.232 / \beta & & \\ \rightarrow \alpha &= 0.232 / 23.561 & 5.466 &= \frac{0.232}{\beta} \beta^2 \\ \alpha &= 0.00985 & 5.466 &= 0.232\beta \rightarrow \beta = 23.561 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.29
Tabel Gamma Pola Q Saat Ini Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.008	0.00985	23.561	0.07047	1.010	1.000	0.001	0.23144
0.0081	0.00985	23.561	0.07036	1.010	1.000	0.001	0.23143
0.0082	0.00985	23.561	0.07025	1.010	1.000	0.001	0.23143
0.0083	0.00985	23.561	0.07013	1.010	1.000	0.001	0.23142
0.0084	0.00985	23.561	0.07003	1.010	1.000	0.001	0.23141
0.0085	0.00985	23.561	0.06992	1.010	1.000	0.001	0.23140
0.0086	0.00985	23.561	0.06981	1.010	1.000	0.001	0.23140
0.0087	0.00985	23.561	0.06970	1.010	1.000	0.001	0.23139
0.0088	0.00985	23.561	0.06960	1.010	1.000	0.001	0.23138
0.0089	0.00985	23.561	0.06950	1.010	1.000	0.001	0.23138
0.0090	0.00985	23.561	0.06939	1.010	1.000	0.001	0.23137
0.0091	0.00985	23.561	0.06929	1.010	1.000	0.001	0.23136
0.0092	0.00985	23.561	0.06919	1.010	1.000	0.001	0.23136

Pola P

Tabel L8.30
Tabel Gamma Pola P Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
10.800	0.00985	23.561	0.00607	1.010	0.637	0.066	0.08228
10.8100	0.00985	23.561	0.00607	1.010	0.637	0.066	0.08222
10.820	0.00985	23.561	0.00606	1.010	0.637	0.066	0.08216
10.8300	0.00985	23.561	0.00605	1.010	0.636	0.066	0.08209
10.840	0.00985	23.561	0.00605	1.010	0.636	0.066	0.08203
10.8500	0.00985	23.561	0.00604	1.010	0.636	0.066	0.08197
10.860	0.00985	23.561	0.00604	1.010	0.635	0.066	0.08191
10.8700	0.00985	23.561	0.00603	1.010	0.635	0.066	0.08185
10.880	0.00985	23.561	0.00603	1.010	0.635	0.066	0.08179
10.8900	0.00985	23.561	0.00602	1.010	0.635	0.066	0.08173
10.900	0.00985	23.561	0.00601	1.010	0.634	0.066	0.08167
10.9100	0.00985	23.561	0.00601	1.010	0.634	0.066	0.08161
10.920	0.00985	23.561	0.00600	1.010	0.634	0.066	0.08155

Lanjutan Tabel L8.30
Tabel Gamma Pola P Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
4.700	0.00985	23.561	0.01205	1.010	0.823	0.057	0.13431
4.7100	0.00985	23.561	0.01204	1.010	0.822	0.057	0.13419
4.720	0.00985	23.561	0.01202	1.010	0.822	0.057	0.13407
4.7300	0.00985	23.561	0.01200	1.010	0.822	0.057	0.13395
4.740	0.00985	23.561	0.01199	1.010	0.821	0.057	0.13383
4.7500	0.00985	23.561	0.01197	1.010	0.821	0.057	0.13371
4.760	0.00985	23.561	0.01195	1.010	0.821	0.057	0.13359
4.7700	0.00985	23.561	0.01194	1.010	0.820	0.057	0.13347
4.780	0.00985	23.561	0.01192	1.010	0.820	0.057	0.13335
4.7900	0.00985	23.561	0.01190	1.010	0.820	0.057	0.13323
4.800	0.00985	23.561	0.01189	1.010	0.819	0.057	0.13311
4.8100	0.00985	23.561	0.01187	1.010	0.819	0.057	0.13299
4.820	0.00985	23.561	0.01185	1.010	0.819	0.057	0.13288

Pola Q Usulan

Tabel L8.31
Tabel Gamma Pola Q Usulan Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.01970	0.00985	23.561	0.06219	1.010	0.999	0.001	0.23067
0.01971	0.00985	23.561	0.06218	1.010	0.999	0.001	0.23067
0.01972	0.00985	23.561	0.06218	1.010	0.999	0.001	0.23067
0.01973	0.00985	23.561	0.06217	1.010	0.999	0.001	0.23067
0.01974	0.00985	23.561	0.06217	1.010	0.999	0.001	0.23067
0.01975	0.00985	23.561	0.06217	1.010	0.999	0.001	0.23067
0.01976	0.00985	23.561	0.06216	1.010	0.999	0.001	0.23067
0.01977	0.00985	23.561	0.06216	1.010	0.999	0.001	0.23067
0.01978	0.00985	23.561	0.06215	1.010	0.999	0.001	0.23067
0.01979	0.00985	23.561	0.06215	1.010	0.999	0.001	0.23067
0.01980	0.00985	23.561	0.06214	1.010	0.999	0.001	0.23066
0.01981	0.00985	23.561	0.06214	1.010	0.999	0.001	0.23066
0.01982	0.00985	23.561	0.06213	1.010	0.999	0.001	0.23066

Lanjutan Tabel L8.31
Tabel Gamma Pola Q Usulan Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.001790	0.00985	23.561	0.08408	1.010	1.000	0.000	0.23191
0.001791	0.00985	23.561	0.08407	1.010	1.000	0.000	0.23191
0.001792	0.00985	23.561	0.08407	1.010	1.000	0.000	0.23191
0.001793	0.00985	23.561	0.08406	1.010	1.000	0.000	0.23191
0.001794	0.00985	23.561	0.08406	1.010	1.000	0.000	0.23191
0.001795	0.00985	23.561	0.08405	1.010	1.000	0.000	0.23191
0.001796	0.00985	23.561	0.08405	1.010	1.000	0.000	0.23191
0.001797	0.00985	23.561	0.08404	1.010	1.000	0.000	0.23191
0.001798	0.00985	23.561	0.08404	1.010	1.000	0.000	0.23191
0.001799	0.00985	23.561	0.08403	1.010	1.000	0.000	0.23191
0.001800	0.00985	23.561	0.08403	1.010	1.000	0.000	0.23191
0.001801	0.00985	23.561	0.08402	1.010	1.000	0.000	0.23191
0.001802	0.00985	23.561	0.08402	1.010	1.000	0.000	0.23191

Pola Optional

Tabel L8.32
Tabel Gamma Pola Optional Item 19014006588

Item 19014006588							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.200000	0.00985	23.561	0.04060	1.010	0.992	0.008	0.22209
0.210000	0.00985	23.561	0.04015	1.010	0.992	0.008	0.22169
0.220000	0.00985	23.561	0.03971	1.010	0.991	0.009	0.22129
0.230000	0.00985	23.561	0.03929	1.010	0.991	0.009	0.22089
2.820000	0.00985	23.561	0.01630	1.010	0.890	0.046	0.16058
2.830000	0.00985	23.561	0.01627	1.010	0.890	0.046	0.16041
2.840000	0.00985	23.561	0.01624	1.010	0.889	0.046	0.16025
2.850000	0.00985	23.561	0.01621	1.010	0.889	0.046	0.16009
2.860000	0.00985	23.561	0.01618	1.010	0.889	0.046	0.15993
2.870000	0.00985	23.561	0.01615	1.010	0.888	0.046	0.15977
2.880000	0.00985	23.561	0.01612	1.010	0.888	0.046	0.15960
2.890000	0.00985	23.561	0.01609	1.010	0.887	0.047	0.15944
2.900000	0.00985	23.561	0.01606	1.010	0.887	0.047	0.15928

- Kode : 19014006700

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.376 &= \alpha\beta & 0.587 &= \sqrt{\frac{0.376}{\beta}}\beta \\ \alpha &= 0.376 / \beta & 0.345 &= \frac{0.376}{\beta}\beta^2 \\ \rightarrow \alpha &= 0.376 / 0.916 & 0.345 &= 0.376\beta \rightarrow \beta = 0.916 \\ \alpha &= 0.410 & & \end{aligned}$$

Pola Q Saat Ini

Tabel L8.33
Tabel Gamma Pola Q Saat Ini Item 19014006700

Item 19014006700							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.3130	0.41	0.916	0.01812	1.410	0.150	0.042	0.01446
2.3131	0.41	0.916	0.01811	1.410	0.150	0.042	0.01446
2.3132	0.41	0.916	0.01811	1.410	0.150	0.042	0.01446
2.3133	0.41	0.916	0.01811	1.410	0.150	0.042	0.01446
2.3134	0.41	0.916	0.01811	1.410	0.150	0.042	0.01446
2.3135	0.41	0.916	0.01811	1.410	0.150	0.042	0.01445
2.3136	0.41	0.916	0.01810	1.410	0.150	0.042	0.01445
2.3137	0.41	0.916	0.01810	1.410	0.150	0.042	0.01445
2.3138	0.41	0.916	0.01810	1.410	0.150	0.042	0.01445
2.3139	0.41	0.916	0.01810	1.410	0.150	0.042	0.01445
2.3140	0.41	0.916	0.01809	1.410	0.150	0.042	0.01444
2.3141	0.41	0.916	0.01809	1.410	0.150	0.042	0.01444

Pola P

Tabel L8.34
Tabel Gamma Pola P Item 19014006700

Item 19014006700							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.8100	0.41	0.916	0.00961	1.410	0.093	0.027	0.00780
2.8110	0.41	0.916	0.00960	1.410	0.093	0.027	0.00779
2.8120	0.41	0.916	0.00959	1.410	0.093	0.027	0.00778
2.8130	0.41	0.916	0.00958	1.410	0.092	0.027	0.00777
2.8140	0.41	0.916	0.00956	1.410	0.092	0.027	0.00776
2.8150	0.41	0.916	0.00955	1.410	0.092	0.027	0.00775
2.8160	0.41	0.916	0.00954	1.410	0.092	0.027	0.00774
2.8170	0.41	0.916	0.00953	1.410	0.092	0.027	0.00774
2.8180	0.41	0.916	0.00952	1.410	0.092	0.027	0.00773
2.8190	0.41	0.916	0.00950	1.410	0.092	0.027	0.00772
2.8200	0.41	0.916	0.00949	1.410	0.092	0.027	0.00771
2.8210	0.41	0.916	0.00948	1.410	0.092	0.027	0.00770

Lanjutan Tabel L8.34
Tabel Gamma Pola P Item 19014006700

Item 19014006700							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.2700	0.41	0.916	0.01915	1.410	0.156	0.043	0.01526
2.2710	0.41	0.916	0.01913	1.410	0.156	0.043	0.01524
2.2720	0.41	0.916	0.01910	1.410	0.156	0.043	0.01523
2.2730	0.41	0.916	0.01908	1.410	0.156	0.043	0.01521
2.2740	0.41	0.916	0.01905	1.410	0.156	0.043	0.01519
2.2750	0.41	0.916	0.01903	1.410	0.156	0.043	0.01517
2.2760	0.41	0.916	0.01900	1.410	0.156	0.043	0.01515
2.2770	0.41	0.916	0.01898	1.410	0.155	0.043	0.01513
2.2780	0.41	0.916	0.01896	1.410	0.155	0.043	0.01511
2.2790	0.41	0.916	0.01893	1.410	0.155	0.043	0.01509
2.2800	0.41	0.916	0.01891	1.410	0.155	0.043	0.01507
2.2810	0.41	0.916	0.01888	1.410	0.155	0.043	0.01505

Pola Q Usulan

Tabel L8.35
Tabel Gamma Pola Q Usulan Item 19014006700

Item 19014006700							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.8900	0.41	0.916	0.03151	1.410	0.224	0.060	0.02469
1.8910	0.41	0.916	0.03147	1.410	0.224	0.060	0.02465
1.8920	0.41	0.916	0.03142	1.410	0.224	0.059	0.02462
1.8930	0.41	0.916	0.03138	1.410	0.224	0.059	0.02459
1.8940	0.41	0.916	0.03134	1.410	0.223	0.059	0.02456
1.8950	0.41	0.916	0.03130	1.410	0.223	0.059	0.02453
1.8960	0.41	0.916	0.03126	1.410	0.223	0.059	0.02450
1.8970	0.41	0.916	0.03122	1.410	0.223	0.059	0.02447
1.8980	0.41	0.916	0.03118	1.410	0.223	0.059	0.02444
1.8990	0.41	0.916	0.03113	1.410	0.222	0.059	0.02440
1.9000	0.41	0.916	0.03109	1.410	0.222	0.059	0.02437
1.9010	0.41	0.916	0.03105	1.410	0.222	0.059	0.02434

Lanjutan Tabel L8.35
Tabel Gamma Pola Q Usulan Item 19014006700

Item 19014006700							
k	alpa	beta	F(k)	alpa+1	G(k)	k*F(k)	E(k)
1.8620	0.41	0.916	0.03270	1.410	0.230	0.061	0.02558
1.8621	0.41	0.916	0.03270	1.410	0.230	0.061	0.02558
1.8622	0.41	0.916	0.03269	1.410	0.230	0.061	0.02558
1.8623	0.41	0.916	0.03269	1.410	0.230	0.061	0.02557
1.8624	0.41	0.916	0.03268	1.410	0.230	0.061	0.02557
1.8625	0.41	0.916	0.03268	1.410	0.230	0.061	0.02557
1.8626	0.41	0.916	0.03268	1.410	0.230	0.061	0.02557
1.8627	0.41	0.916	0.03267	1.410	0.230	0.061	0.02556
1.8628	0.41	0.916	0.03267	1.410	0.230	0.061	0.02556
1.8629	0.41	0.916	0.03266	1.410	0.230	0.061	0.02556
1.8630	0.41	0.916	0.03266	1.410	0.230	0.061	0.02555
1.8631	0.41	0.916	0.03265	1.410	0.230	0.061	0.02555

Pola Optional

Tabel L8.36
Tabel Gamma Pola Optional Item 19014006700

Item 19014006700							
k	alpa	beta	F(k)	alpa+1	G(k)	k*F(k)	E(k)
3.3800	0.73	0.916	0.01322	1.730	0.084	0.045	0.01152
3.3810	0.7301	0.916	0.01320	1.730	0.084	0.045	0.01151
3.3820	0.7302	0.916	0.01319	1.730	0.084	0.045	0.01150
3.3830	0.7303	0.916	0.01318	1.730	0.084	0.045	0.01149
3.3840	0.7304	0.916	0.01317	1.730	0.084	0.045	0.01148
3.3850	0.7305	0.916	0.01316	1.731	0.084	0.045	0.01147
3.3860	0.7306	0.916	0.01314	1.731	0.084	0.045	0.01146
3.3870	0.7307	0.916	0.01313	1.731	0.084	0.044	0.01145
3.3880	0.7308	0.916	0.01312	1.731	0.084	0.044	0.01144
3.3890	0.7309	0.916	0.01311	1.731	0.083	0.044	0.01143
3.3900	0.731	0.916	0.01310	1.731	0.083	0.044	0.01142
3.3910	0.7311	0.916	0.01309	1.731	0.083	0.044	0.01141

- Kode : 19014140633

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.056 &= \alpha\beta & 0.759 &= \sqrt{\frac{0.056}{\beta}}\beta \\ \alpha &= 0.056 / \beta & & \\ \rightarrow \alpha &= 0.056 / 10.287 & 0.576 &= \frac{0.056}{\beta}\beta^2 \\ \alpha &= 0.0054 & & \\ & & 0.576 &= 0.056\beta \rightarrow \beta = 10.287 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.37
Tabel Gamma Pola Q Saat Ini Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.0000000090	0.0054	10.287	0.10375	1.005	1.000	0.000	0.05555
0.0000000091	0.0054	10.287	0.10370	1.005	1.000	0.000	0.05555
0.0000000092	0.0054	10.287	0.10364	1.005	1.000	0.000	0.05555
0.0000000093	0.0054	10.287	0.10359	1.005	1.000	0.000	0.05555
0.0000000094	0.0054	10.287	0.10354	1.005	1.000	0.000	0.05555
0.0000000095	0.0054	10.287	0.10349	1.005	1.000	0.000	0.05555
0.0000000096	0.0054	10.287	0.10344	1.005	1.000	0.000	0.05555
0.0000000097	0.0054	10.287	0.10339	1.005	1.000	0.000	0.05555
0.0000000098	0.0054	10.287	0.10334	1.005	1.000	0.000	0.05555
0.0000000099	0.0054	10.287	0.10375	1.005	1.000	0.000	0.05555
0.0000000100	0.0054	10.287	0.10324	1.005	1.000	0.000	0.05555
0.0000000101	0.0054	10.287	0.10319	1.005	1.000	0.000	0.05555

Pola P

Tabel L8.38
Tabel Gamma Pola P Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.00	0.0054	10.287	1.00000	1.005	1.000	0.000	0.05555
1.50	0.0054	10.287	0.00803	1.005	0.866	0.012	0.03607
1.51	0.0054	10.287	0.00800	1.005	0.865	0.012	0.03599
1.52	0.0054	10.287	0.00797	1.005	0.864	0.012	0.03591
1.53	0.0054	10.287	0.00794	1.005	0.864	0.012	0.03583
1.54	0.0054	10.287	0.00791	1.005	0.863	0.012	0.03575
1.55	0.0054	10.287	0.00788	1.005	0.862	0.012	0.03567
1.56	0.0054	10.287	0.00785	1.005	0.861	0.012	0.03559
1.57	0.0054	10.287	0.00782	1.005	0.860	0.012	0.03551
1.58	0.0054	10.287	1.00000	1.005	1.000	0.000	0.05555
1.59	0.0054	10.287	0.00776	1.005	0.859	0.012	0.03536
1.60	0.0054	10.287	0.00773	1.005	0.858	0.012	0.03528

Lanjutan Tabel L8.38
Tabel Gamma Pola P Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.0000	0.0054	10.287	1.00000	1.005	1.000	0.000	0.05555
0.0001	0.0054	10.287	0.05751	1.005	1.000	0.000	0.05554
0.0002	0.0054	10.287	0.05398	1.005	1.000	0.000	0.05554
0.0003	0.0054	10.287	0.05190	1.005	1.000	0.000	0.05553
0.0004	0.0054	10.287	0.05043	1.005	1.000	0.000	0.05553
0.0005	0.0054	10.287	0.04928	1.005	1.000	0.000	0.05552
0.0006	0.0054	10.287	0.04835	1.005	1.000	0.000	0.05552
0.0007	0.0054	10.287	0.04755	1.005	1.000	0.000	0.05551
0.0008	0.0054	10.287	0.04687	1.005	1.000	0.000	0.05551
0.0009	0.0054	10.287	1.00000	1.005	1.000	0.000	0.05555
0.0010	0.0054	10.287	0.04572	1.005	1.000	0.000	0.05550
0.0011	0.0054	10.287	0.04523	1.005	1.000	0.000	0.05549

Pola Q Usulan

Tabel L8.39
Tabel Gamma Pola Q Usulan Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.0000000290	0.0054	10.287	0.09807	1.005	1.000	0.000	0.05555
0.0000000291	0.0054	10.287	0.09805	1.005	1.000	0.000	0.05555
0.0000000292	0.0054	10.287	0.09803	1.005	1.000	0.000	0.05555
0.0000000293	0.0054	10.287	0.09802	1.005	1.000	0.000	0.05555
0.0000000294	0.0054	10.287	0.09800	1.005	1.000	0.000	0.05555
0.0000000295	0.0054	10.287	0.09798	1.005	1.000	0.000	0.05555
0.0000000296	0.0054	10.287	0.09797	1.005	1.000	0.000	0.05555
0.0000000297	0.0054	10.287	0.09795	1.005	1.000	0.000	0.05555
0.0000000298	0.0054	10.287	0.09794	1.005	1.000	0.000	0.05555
0.0000000299	0.0054	10.287	0.09807	1.005	1.000	0.000	0.05555
0.0000000300	0.0054	10.287	0.09790	1.005	1.000	0.000	0.05555
0.0000000301	0.0054	10.287	0.09789	1.005	1.000	0.000	0.05555

Lanjutan Tabel L8.39
Tabel Gamma Pola Q Usulan Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.00000000710	0.0054	10.287	0.10490	1.005	1.000	0.000	0.05555
0.00000000711	0.0054	10.287	0.10489	1.005	1.000	0.000	0.05555
0.00000000712	0.0054	10.287	0.10488	1.005	1.000	0.000	0.05555
0.00000000713	0.0054	10.287	0.10488	1.005	1.000	0.000	0.05555
0.00000000714	0.0054	10.287	0.10487	1.005	1.000	0.000	0.05555
0.00000000715	0.0054	10.287	0.10486	1.005	1.000	0.000	0.05555
0.00000000716	0.0054	10.287	0.10485	1.005	1.000	0.000	0.05555
0.00000000717	0.0054	10.287	0.10485	1.005	1.000	0.000	0.05555
0.00000000718	0.0054	10.287	0.10484	1.005	1.000	0.000	0.05555
0.00000000719	0.0054	10.287	0.10490	1.005	1.000	0.000	0.05555
0.00000000720	0.0054	10.287	0.10483	1.005	1.000	0.000	0.05555
0.00000000721	0.0054	10.287	0.10482	1.005	1.000	0.000	0.05555

Pola Optional

Tabel L8.40
Tabel Gamma Pola Optional Item 19014140633

Item 19014140633							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
0.001640	0.0054	10.287	0.04317	1.005	1.000	0.000	0.05547
0.001641	0.0054	10.287	0.04316	1.005	1.000	0.000	0.05547
0.001642	0.0054	10.287	0.04316	1.005	1.000	0.000	0.05547
0.001643	0.0054	10.287	0.04316	1.005	1.000	0.000	0.05547
0.001644	0.0054	10.287	0.04315	1.005	1.000	0.000	0.05547
0.001645	0.0054	10.287	0.04315	1.005	1.000	0.000	0.05547
0.001646	0.0054	10.287	0.04315	1.005	1.000	0.000	0.05547
0.001647	0.0054	10.287	0.04314	1.005	1.000	0.000	0.05547
0.001648	0.0054	10.287	0.04314	1.005	1.000	0.000	0.05547
0.001649	0.0054	10.287	0.04317	1.005	1.000	0.000	0.05547
0.001650	0.0054	10.287	0.04313	1.005	1.000	0.000	0.05547
0.001651	0.0054	10.287	0.04313	1.005	1.000	0.000	0.05547

- Kode : 19014113620

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 1.443 &= \alpha\beta & 1.443 &= \sqrt{\frac{1.443}{\beta}}\beta \\ \alpha &= 1.443/\beta & & \\ \rightarrow \alpha &= 1.443/1.443 & 2.082 &= \frac{1.443}{\beta}\beta^2 \\ \alpha &= 1 & 2.082 &= 1.443\beta \rightarrow \beta = 1.443 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.41
Tabel Gamma Pola Q Saat Ini Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
7.30	1	1.443	0.00635	2.000	0.038	0.046	0.00917
7.31	1	1.443	0.00631	2.000	0.038	0.046	0.00910
7.32	1	1.443	0.00627	2.000	0.038	0.046	0.00904
7.33	1	1.443	0.00622	2.000	0.038	0.046	0.00898
7.34	1	1.443	0.00618	2.000	0.038	0.045	0.00892
7.35	1	1.443	0.00614	2.000	0.037	0.045	0.00885
7.36	1	1.443	0.00609	2.000	0.037	0.045	0.00879
7.37	1	1.443	0.00605	2.000	0.037	0.045	0.00873
7.38	1	1.443	0.00601	2.000	0.037	0.044	0.00867
7.39	1	1.443	0.00597	2.000	0.037	0.044	0.00861
7.40	1	1.443	0.00593	2.000	0.036	0.044	0.00855
7.41	1	1.443	0.00589	2.000	0.036	0.044	0.00849

Pola P

Tabel L8.42
Tabel Gamma Pola P Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
7.370	1	1.443	0.00605	2.000	0.037	0.045	0.00873
7.371	1	1.443	0.00605	2.000	0.037	0.045	0.00873
7.372	1	1.443	0.00604	2.000	0.037	0.045	0.00872
7.373	1	1.443	0.00604	2.000	0.037	0.045	0.00871
7.374	1	1.443	0.00603	2.000	0.037	0.045	0.00871
7.375	1	1.443	0.00603	2.000	0.037	0.044	0.00870
7.376	1	1.443	0.00603	2.000	0.037	0.044	0.00870
7.377	1	1.443	0.00602	2.000	0.037	0.044	0.00869
7.378	1	1.443	0.00602	2.000	0.037	0.044	0.00868
7.379	1	1.443	0.00601	2.000	0.037	0.044	0.00868
7.380	1	1.443	0.00601	2.000	0.037	0.044	0.00867
7.381	1	1.443	0.00601	2.000	0.037	0.044	0.00867

Lanjutan Tabel L8.42
Tabel Gamma Pola P Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
6.380	1	1.443	0.01202	2.000	0.065	0.077	0.01734
6.381	1	1.443	0.01201	2.000	0.065	0.077	0.01733
6.382	1	1.443	0.01200	2.000	0.065	0.077	0.01732
6.383	1	1.443	0.01199	2.000	0.065	0.077	0.01731
6.384	1	1.443	0.01198	2.000	0.065	0.077	0.01729
6.385	1	1.443	0.01198	2.000	0.065	0.076	0.01728
6.386	1	1.443	0.01197	2.000	0.065	0.076	0.01727
6.387	1	1.443	0.01196	2.000	0.065	0.076	0.01726
6.388	1	1.443	0.01195	2.000	0.065	0.076	0.01725
6.389	1	1.443	0.01194	2.000	0.065	0.076	0.01723
6.390	1	1.443	0.01194	2.000	0.065	0.076	0.01722
6.391	1	1.443	0.01193	2.000	0.065	0.076	0.01721

Pola Q Usulan

Tabel L8.43
Tabel Gamma Pola Q Usulan Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.610	1	1.443	0.02049	2.000	0.100	0.115	0.02957
5.611	1	1.443	0.02048	2.000	0.100	0.115	0.02955
5.612	1	1.443	0.02046	2.000	0.100	0.115	0.02953
5.613	1	1.443	0.02045	2.000	0.100	0.115	0.02951
5.614	1	1.443	0.02044	2.000	0.100	0.115	0.02949
5.615	1	1.443	0.02042	2.000	0.100	0.115	0.02947
5.616	1	1.443	0.02041	2.000	0.100	0.115	0.02945
5.617	1	1.443	0.02039	2.000	0.100	0.115	0.02943
5.618	1	1.443	0.02038	2.000	0.100	0.114	0.02941
5.619	1	1.443	0.02036	2.000	0.100	0.114	0.02939
5.620	1	1.443	0.02035	2.000	0.100	0.114	0.02937
5.621	1	1.443	0.02034	2.000	0.100	0.114	0.02935

Lanjutan Tabel L8.43
Tabel Gamma Pola Q Usulan Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.530	1	1.443	0.02166	2.000	0.105	0.120	0.03126
5.531	1	1.443	0.02164	2.000	0.105	0.120	0.03123
5.532	1	1.443	0.02163	2.000	0.105	0.120	0.03121
5.533	1	1.443	0.02161	2.000	0.104	0.120	0.03119
5.534	1	1.443	0.02160	2.000	0.104	0.120	0.03117
5.535	1	1.443	0.02158	2.000	0.104	0.119	0.03115
5.536	1	1.443	0.02157	2.000	0.104	0.119	0.03113
5.537	1	1.443	0.02156	2.000	0.104	0.119	0.03110
5.538	1	1.443	0.02154	2.000	0.104	0.119	0.03108
5.539	1	1.443	0.02153	2.000	0.104	0.119	0.03106
5.540	1	1.443	0.02151	2.000	0.104	0.119	0.03104
5.541	1	1.443	0.02150	2.000	0.104	0.119	0.03102

Lanjutan Tabel L8.43
Tabel Gamma Pola Q Usulan Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
5.530	1	1.443	0.02166	2.000	0.105	0.120	0.03126
5.531	1	1.443	0.02164	2.000	0.105	0.120	0.03123
5.532	1	1.443	0.02163	2.000	0.105	0.120	0.03121
5.533	1	1.443	0.02161	2.000	0.104	0.120	0.03119
5.534	1	1.443	0.02160	2.000	0.104	0.120	0.03117
5.535	1	1.443	0.02158	2.000	0.104	0.119	0.03115
5.536	1	1.443	0.02157	2.000	0.104	0.119	0.03113
5.537	1	1.443	0.02156	2.000	0.104	0.119	0.03110
5.538	1	1.443	0.02154	2.000	0.104	0.119	0.03108
5.539	1	1.443	0.02153	2.000	0.104	0.119	0.03106
5.540	1	1.443	0.02151	2.000	0.104	0.119	0.03104
5.541	1	1.443	0.02150	2.000	0.104	0.119	0.03102

Pola Optional

Tabel L8.44
Tabel Gamma Pola Optional Item 19014113620

Item 19014113620							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
6.8600	1	1.443	0.00862	2.000	0.050	0.059	0.01243
6.8610	1	1.443	0.00861	2.000	0.050	0.059	0.01243
6.8620	1	1.443	0.00861	2.000	0.050	0.059	0.01242
6.8630	1	1.443	0.00860	2.000	0.049	0.059	0.01241
6.8640	1	1.443	0.00859	2.000	0.049	0.059	0.01240
6.8650	1	1.443	0.00859	2.000	0.049	0.059	0.01239
6.8660	1	1.443	0.00858	2.000	0.049	0.059	0.01238
6.8670	1	1.443	0.00858	2.000	0.049	0.059	0.01237
6.8680	1	1.443	0.00857	2.000	0.049	0.059	0.01237
6.8690	1	1.443	0.00856	2.000	0.049	0.059	0.01236
6.8700	1	1.443	0.00856	2.000	0.049	0.059	0.01235
6.8710	1	1.443	0.00855	2.000	0.049	0.059	0.01234

• Kode : 19014106202

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.868 &= \alpha\beta & 0.460 &= \sqrt{\frac{0.868}{\beta}}\beta \\ \alpha &= 0.868 / \beta & & \\ \rightarrow \alpha &= 0.868 / 0.244 & 0.2116 &= \frac{0.868}{\beta} \beta^2 \\ \alpha &= 3.557 & & \\ & & 0.2116 &= 0.868\beta \rightarrow \beta = 0.244 \end{aligned}$$

Pola Q Saat Ini

Tabel L8.45
Tabel Gamma Pola Q Saat Ini Item 19014106202

Item 19014106202							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.2670	3.557	0.244	0.01031	4.557	0.031	0.023	0.00323
2.2671	3.557	0.244	0.01030	4.557	0.031	0.023	0.00323
2.2672	3.557	0.244	0.01030	4.557	0.031	0.023	0.00323
2.2673	3.557	0.244	0.01030	4.557	0.031	0.023	0.00322
2.2674	3.557	0.244	0.010293	4.557	0.031	0.023	0.00322
2.2675	3.557	0.244	0.010290	4.557	0.031	0.023	0.00322
2.2676	3.557	0.244	0.01029	4.557	0.031	0.023	0.00322
2.2677	3.557	0.244	0.01028	4.557	0.031	0.023	0.00322
2.2678	3.557	0.244	0.01028	4.557	0.031	0.023	0.00322
2.2679	3.557	0.244	0.01028	4.557	0.031	0.023	0.00322
2.2680	3.557	0.244	0.01027	4.557	0.031	0.023	0.00322
2.2681	3.557	0.244	0.01027	4.557	0.031	0.023	0.00322
2.2682	3.557	0.244	0.01027	4.557	0.031	0.023	0.00322

Pola P

Tabel L8.46
Tabel Gamma Pola P Item 19014106202

Item 19014106202							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.2000	3.557	0.244	0.01267	4.557	0.037	0.028	0.00399
2.2010	3.557	0.244	0.01263	4.557	0.037	0.028	0.00398
2.2020	3.557	0.244	0.01259	4.557	0.037	0.028	0.00397
2.2030	3.557	0.244	0.01255	4.557	0.036	0.028	0.00396
2.2040	3.557	0.244	0.012515	4.557	0.036	0.028	0.00394
2.2050	3.557	0.244	0.012477	4.557	0.036	0.028	0.00393
2.2060	3.557	0.244	0.01244	4.557	0.036	0.027	0.00392
2.2070	3.557	0.244	0.01240	4.557	0.036	0.027	0.00391
2.2080	3.557	0.244	0.01236	4.557	0.036	0.027	0.00389
2.2090	3.557	0.244	0.01232	4.557	0.036	0.027	0.00388
2.2100	3.557	0.244	0.01229	4.557	0.036	0.027	0.00387
2.2110	3.557	0.244	0.01225	4.557	0.036	0.027	0.00386
2.2120	3.557	0.244	0.01221	4.557	0.036	0.027	0.00385

Lanjutan Tabel L8.46
Tabel Gamma Pola P Item 19014106202

Item 19014106202							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.9000	3.557	0.244	0.03119	4.557	0.080	0.059	0.01018
1.9100	3.557	0.244	0.03028	4.557	0.078	0.058	0.00988
1.9200	3.557	0.244	0.02941	4.557	0.076	0.056	0.00958
1.9300	3.557	0.244	0.02855	4.557	0.074	0.055	0.00929
1.9400	3.557	0.244	0.027725	4.557	0.072	0.054	0.00901
1.9500	3.557	0.244	0.026918	4.557	0.071	0.052	0.00873
1.9600	3.557	0.244	0.02613	4.557	0.069	0.051	0.00847
1.9700	3.557	0.244	0.02537	4.557	0.067	0.050	0.00821
1.9800	3.557	0.244	0.02463	4.557	0.065	0.049	0.00796
1.9900	3.557	0.244	0.02391	4.557	0.064	0.048	0.00772
2.0000	3.557	0.244	0.02321	4.557	0.062	0.046	0.00748
2.0100	3.557	0.244	0.02252	4.557	0.061	0.045	0.00725
2.0200	3.557	0.244	0.02186	4.557	0.059	0.044	0.00703

Pola Q Usulan

Tabel L8.47
Tabel Gamma Pola Q Usulan Item 19014106202

Item 19014106202							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.91000	3.557	0.244	0.03028	4.557	0.078	0.058	0.00988
1.91100	3.557	0.244	0.03020	4.557	0.078	0.058	0.00984
1.91200	3.557	0.244	0.03011	4.557	0.078	0.058	0.00981
1.91300	3.557	0.244	0.03002	4.557	0.077	0.057	0.00978
1.91400	3.557	0.244	0.029931	4.557	0.077	0.057	0.00975
1.91500	3.557	0.244	0.029843	4.557	0.077	0.057	0.00972
1.91600	3.557	0.244	0.02976	4.557	0.077	0.057	0.00970
1.91700	3.557	0.244	0.02967	4.557	0.077	0.057	0.00967
1.91800	3.557	0.244	0.02958	4.557	0.076	0.057	0.00964
1.91900	3.557	0.244	0.02949	4.557	0.076	0.057	0.00961
1.92000	3.557	0.244	0.02941	4.557	0.076	0.056	0.00958
1.92100	3.557	0.244	0.02932	4.557	0.076	0.056	0.00955
1.92200	3.557	0.244	0.02924	4.557	0.076	0.056	0.00952

Pola Optional

Tabel L8.48
Tabel Gamma Pola Optional Item 19014106202

Item 19014106202							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.19730	3.557	0.244	0.01278	4.557	0.037	0.028	0.00403
2.19731	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19732	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19733	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19734	3.557	0.244	0.012773	4.557	0.037	0.028	0.00403
2.19735	3.557	0.244	0.012773	4.557	0.037	0.028	0.00403
2.19736	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19737	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19738	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19739	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19740	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19741	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403
2.19742	3.557	0.244	0.01277	4.557	0.037	0.028	0.00403

- Kode : 19014114641

$$\begin{aligned} \mu_i &= \alpha\beta & \sigma_i &= \sqrt{\alpha\beta} \\ 0.538 &= \alpha\beta & 0.467 &= \sqrt{\frac{0.538}{\beta}}\beta \\ \alpha &= 0.538/\beta & 0.218 &= \frac{0.538}{\beta}\beta^2 \\ \rightarrow \alpha &= 0.538/0.405 & 0.218 &= 0.538\beta \rightarrow \beta = 0.405 \\ \alpha &= 1.328 & & \end{aligned}$$

Pola Q Saat Ini

Tabel L8.49
Tabel Gamma Pola Q Saat Ini Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.1380	1.328	0.405	0.01040	2.328	0.050	0.022	0.00441
2.1381	1.328	0.405	0.01039	2.328	0.050	0.022	0.00441
2.1382	1.328	0.405	0.01039	2.328	0.050	0.022	0.00441
2.1383	1.328	0.405	0.01039	2.328	0.050	0.022	0.00441
2.1384	1.328	0.405	0.01039	2.328	0.049	0.022	0.00441
2.1385	1.328	0.405	0.010383	2.328	0.049	0.022	0.00441
2.1386	1.328	0.405	0.010381	2.328	0.049	0.022	0.00441
2.1387	1.328	0.405	0.010378	2.328	0.049	0.022	0.00441
2.1388	1.328	0.405	0.010376	2.328	0.049	0.022	0.00441
2.1389	1.328	0.405	0.01037	2.328	0.049	0.022	0.00440
2.1390	1.328	0.405	0.01037	2.328	0.049	0.022	0.00440
2.1391	1.328	0.405	0.01037	2.328	0.049	0.022	0.00440
2.1392	1.328	0.405	0.01037	2.328	0.049	0.022	0.00440

Pola P

Tabel L8.50
Tabel Gamma Pola P Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.2580	1.328	0.405	0.00785	2.328	0.039	0.018	0.00333
2.2581	1.328	0.405	0.00785	2.328	0.039	0.018	0.00333
2.2582	1.328	0.405	0.00785	2.328	0.039	0.018	0.00332
2.2583	1.328	0.405	0.00784	2.328	0.039	0.018	0.00332
2.2584	1.328	0.405	0.00784	2.328	0.039	0.018	0.00332
2.2585	1.328	0.405	0.007840	2.328	0.039	0.018	0.00332
2.2586	1.328	0.405	0.007838	2.328	0.039	0.018	0.00332
2.2587	1.328	0.405	0.007836	2.328	0.039	0.018	0.00332
2.2588	1.328	0.405	0.007834	2.328	0.039	0.018	0.00332
2.2589	1.328	0.405	0.00783	2.328	0.039	0.018	0.00332
2.2590	1.328	0.405	0.00783	2.328	0.039	0.018	0.00332
2.2591	1.328	0.405	0.00783	2.328	0.039	0.018	0.00332
2.2592	1.328	0.405	0.00783	2.328	0.039	0.018	0.00332

Lanjutan Tabel L8.50
Tabel Gamma Pola P Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.9650	1.328	0.405	0.01557	2.328	0.069	0.031	0.00663
1.9651	1.328	0.405	0.01556	2.328	0.069	0.031	0.00663
1.9652	1.328	0.405	0.01556	2.328	0.069	0.031	0.00663
1.9653	1.328	0.405	0.01555	2.328	0.069	0.031	0.00662
1.9654	1.328	0.405	0.01555	2.328	0.069	0.031	0.00662
1.9655	1.328	0.405	0.015547	2.328	0.069	0.031	0.00662
1.9656	1.328	0.405	0.015544	2.328	0.069	0.031	0.00662
1.9657	1.328	0.405	0.015540	2.328	0.069	0.031	0.00662
1.9658	1.328	0.405	0.015537	2.328	0.069	0.031	0.00662
1.9659	1.328	0.405	0.01553	2.328	0.069	0.031	0.00662
1.9660	1.328	0.405	0.01553	2.328	0.069	0.031	0.00661
1.9661	1.328	0.405	0.01553	2.328	0.069	0.031	0.00661
1.9662	1.328	0.405	0.01552	2.328	0.069	0.031	0.00661

Pola Q Usulan

Tabel L8.51
Tabel Gamma Pola Q Usulan Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.7990	1.328	0.405	0.02289	2.328	0.095	0.041	0.00978
1.7991	1.328	0.405	0.02288	2.328	0.095	0.041	0.00978
1.7992	1.328	0.405	0.02288	2.328	0.095	0.041	0.00978
1.7993	1.328	0.405	0.02287	2.328	0.095	0.041	0.00978
1.7994	1.328	0.405	0.02287	2.328	0.095	0.041	0.00977
1.7995	1.328	0.405	0.022863	2.328	0.095	0.041	0.00977
1.7996	1.328	0.405	0.022858	2.328	0.095	0.041	0.00977
1.7997	1.328	0.405	0.022853	2.328	0.095	0.041	0.00977
1.7998	1.328	0.405	0.022848	2.328	0.095	0.041	0.00976
1.7999	1.328	0.405	0.02284	2.328	0.095	0.041	0.00976
1.8000	1.328	0.405	0.02284	2.328	0.095	0.041	0.00976
1.8001	1.328	0.405	0.02283	2.328	0.095	0.041	0.00976
1.8002	1.328	0.405	0.02283	2.328	0.095	0.041	0.00976

Lanjutan Tabel L8.51
Tabel Gamma Pola Q Usulan Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
1.7920	1.328	0.405	0.02326	2.328	0.096	0.042	0.00994
1.7921	1.328	0.405	0.02326	2.328	0.096	0.042	0.00994
1.7922	1.328	0.405	0.02325	2.328	0.096	0.042	0.00994
1.7923	1.328	0.405	0.02325	2.328	0.096	0.042	0.00994
1.7924	1.328	0.405	0.02324	2.328	0.096	0.042	0.00993
1.7925	1.328	0.405	0.023237	2.328	0.096	0.042	0.00993
1.7926	1.328	0.405	0.023232	2.328	0.096	0.042	0.00993
1.7927	1.328	0.405	0.023227	2.328	0.096	0.042	0.00993
1.7928	1.328	0.405	0.023221	2.328	0.096	0.042	0.00993
1.7929	1.328	0.405	0.02322	2.328	0.096	0.042	0.00992
1.7930	1.328	0.405	0.02321	2.328	0.096	0.042	0.00992
1.7931	1.328	0.405	0.02321	2.328	0.096	0.042	0.00992
1.7932	1.328	0.405	0.02320	2.328	0.096	0.042	0.00992

Pola Optional

Tabel L8.52
Tabel Gamma Pola Optional Item 19014114641

Item 19014114641							
k	alpa	beta	F'(k)	alpa+1	G(k)	k*F'(k)	E(k)
2.1700	1.328	0.405	0.00965	2.328	0.047	0.021	0.00409
2.1710	1.328	0.405	0.00962	2.328	0.046	0.021	0.00408
2.1720	1.328	0.405	0.00960	2.328	0.046	0.021	0.00407
2.1730	1.328	0.405	0.00958	2.328	0.046	0.021	0.00406
2.1740	1.328	0.405	0.00956	2.328	0.046	0.021	0.00405
2.1750	1.328	0.405	0.009533	2.328	0.046	0.021	0.00404
2.1760	1.328	0.405	0.009511	2.328	0.046	0.021	0.00404
2.1770	1.328	0.405	0.009489	2.328	0.046	0.021	0.00403
2.1780	1.328	0.405	0.009467	2.328	0.046	0.021	0.00402
2.1790	1.328	0.405	0.00944	2.328	0.046	0.021	0.00401
2.1800	1.328	0.405	0.00942	2.328	0.046	0.021	0.00400
2.1810	1.328	0.405	0.00940	2.328	0.046	0.021	0.00399
2.1820	1.328	0.405	0.00938	2.328	0.045	0.020	0.00398

TABEL NORMAL

Tabel 8.53

Tabel Distribusi Normal

k	F'(k)	f(k)	E(k)
0	0.50000	0.39904	0.39904
0.01	0.49601	0.39902	0.39406
0.02	0.49202	0.39896	0.38912
0.03	0.48803	0.39886	0.38422
0.04	0.48405	0.39872	0.37936
0.05	0.48006	0.39854	0.37454
0.06	0.47608	0.39833	0.36976
0.07	0.47210	0.39807	0.36502
0.08	0.46812	0.39777	0.36032
0.09	0.46414	0.39743	0.35566
0.1	0.46017	0.39705	0.35104
0.11	0.45620	0.39664	0.34645
0.12	0.45224	0.39618	0.34191
0.13	0.44828	0.39569	0.33741
0.14	0.44433	0.39515	0.33295
0.15	0.44038	0.39458	0.32852
0.16	0.43644	0.39397	0.32414
0.17	0.43251	0.39332	0.31979
0.18	0.42858	0.39263	0.31549
0.19	0.42465	0.39191	0.31122
0.2	0.42074	0.39114	0.30699
0.21	0.41683	0.39034	0.30281
0.22	0.41294	0.38950	0.29866
0.23	0.40905	0.38863	0.29455
0.24	0.40517	0.38771	0.29048
0.25	0.40129	0.38677	0.28644
0.26	0.39743	0.38578	0.28245
0.27	0.39358	0.38476	0.27849
0.28	0.38974	0.38370	0.27458
0.29	0.38591	0.38261	0.27070
0.3	0.38209	0.38148	0.26686
0.31	0.37828	0.38032	0.26306
0.32	0.37448	0.37913	0.25929
0.33	0.37070	0.37790	0.25557
0.34	0.36693	0.37663	0.25188
0.35	0.36317	0.37534	0.24823
0.36	0.35942	0.37401	0.24461
0.37	0.35569	0.37264	0.24104
0.38	0.35197	0.37125	0.23750
0.39	0.34827	0.36982	0.23400
0.4	0.34458	0.36836	0.23053
0.41	0.34090	0.36687	0.22710
0.42	0.33724	0.36536	0.22371
0.43	0.33360	0.36381	0.22036
0.44	0.32997	0.36223	0.21704
0.45	0.32636	0.36062	0.21376

k	F'(k)	f(k)	E(k)
0.46	0.32276	0.35898	0.21051
0.47	0.31918	0.35732	0.20730
0.48	0.31561	0.35562	0.20413
0.49	0.31207	0.35390	0.20099
0.5	0.30854	0.35215	0.19789
0.51	0.30503	0.35038	0.19482
0.52	0.30153	0.34858	0.19178
0.53	0.29806	0.34676	0.18879
0.54	0.29460	0.34491	0.18582
0.55	0.29116	0.34303	0.18289
0.56	0.28774	0.34113	0.18000
0.57	0.28434	0.33921	0.17714
0.58	0.28096	0.33727	0.17431
0.59	0.27760	0.33530	0.17152
0.6	0.27425	0.33331	0.16876
0.61	0.27093	0.33130	0.16603
0.62	0.26763	0.32927	0.16334
0.63	0.26435	0.32722	0.16068
0.64	0.26109	0.32514	0.15805
0.65	0.25785	0.32305	0.15545
0.66	0.25463	0.32095	0.15289
0.67	0.25143	0.31882	0.15036
0.68	0.24825	0.31667	0.14786
0.69	0.24510	0.31451	0.14539
0.7	0.24196	0.31233	0.14296
0.71	0.23885	0.31014	0.14055
0.72	0.23576	0.30793	0.13818
0.73	0.23270	0.30570	0.13584
0.74	0.22965	0.30347	0.13353
0.75	0.22663	0.30121	0.13124
0.76	0.22363	0.29895	0.12899
0.77	0.22065	0.29667	0.12677
0.78	0.21770	0.29438	0.12458
0.79	0.21476	0.29208	0.12241
0.8	0.21186	0.28977	0.12028
0.81	0.20897	0.28744	0.11818
0.82	0.20611	0.28511	0.11610
0.83	0.20327	0.28277	0.11405
0.84	0.20045	0.28041	0.11203
0.85	0.19766	0.27806	0.11004
0.86	0.19489	0.27569	0.10808
0.87	0.19215	0.27331	0.10614
0.88	0.18943	0.27093	0.10423
0.89	0.18673	0.26855	0.10235
0.9	0.18406	0.26615	0.10050
0.91	0.18141	0.26375	0.09867

Lanjutan Tabel 8.53
Tabel Distribusi Normal

k	F'(k)	f(k)	E(k)
0.92	0.17879	0.26135	0.09687
0.93	0.17619	0.25895	0.09509
0.94	0.17361	0.25654	0.09334
0.95	0.17106	0.25412	0.09162
0.96	0.16853	0.25171	0.08992
0.97	0.16602	0.24929	0.08825
0.98	0.16354	0.24687	0.08660
0.99	0.16109	0.24445	0.08498
1	0.15866	0.24203	0.08338
1.01	0.15625	0.23961	0.08180
1.02	0.15386	0.23719	0.08025
1.03	0.15151	0.23477	0.07872
1.04	0.14917	0.23236	0.07722
1.05	0.14686	0.22994	0.07574
1.06	0.14457	0.22753	0.07428
1.07	0.14231	0.22512	0.07285
1.08	0.14007	0.22271	0.07143
1.09	0.13786	0.22031	0.07004
1.1	0.13567	0.21791	0.06867
1.11	0.13350	0.21551	0.06733
1.12	0.13136	0.21312	0.06600
1.13	0.12924	0.21074	0.06470
1.14	0.12714	0.20836	0.06342
1.15	0.12507	0.20599	0.06216
1.16	0.12302	0.20362	0.06091
1.17	0.12100	0.20126	0.05969
1.18	0.11900	0.19891	0.05849
1.19	0.11702	0.19657	0.05731
1.2	0.11507	0.19424	0.05615
1.21	0.11314	0.19191	0.05501
1.22	0.11123	0.18959	0.05389
1.23	0.10935	0.18728	0.05278
1.24	0.10749	0.18498	0.05170
1.25	0.10565	0.18270	0.05063
1.26	0.10383	0.18042	0.04959
1.27	0.10204	0.17815	0.04856
1.28	0.10027	0.17589	0.04754
1.29	0.09853	0.17365	0.04655
1.3	0.09680	0.17141	0.04557
1.31	0.09510	0.16919	0.04461
1.32	0.09342	0.16698	0.04367
1.33	0.09176	0.16478	0.04274
1.34	0.09012	0.16260	0.04183
1.35	0.08851	0.16042	0.04094
1.36	0.08691	0.15826	0.04006
1.37	0.08534	0.15612	0.03920

k	F'(k)	f(k)	E(k)
1.38	0.08379	0.15399	0.03835
1.39	0.08226	0.15187	0.03752
1.4	0.08076	0.14977	0.03671
1.41	0.07927	0.14768	0.03591
1.42	0.07780	0.14560	0.03512
1.43	0.07636	0.14354	0.03435
1.44	0.07493	0.14150	0.03359
1.45	0.07353	0.13947	0.03285
1.46	0.07215	0.13745	0.03212
1.47	0.07078	0.13545	0.03140
1.48	0.06944	0.13347	0.03070
1.49	0.06811	0.13150	0.03001
1.5	0.06681	0.12955	0.02934
1.51	0.06552	0.12762	0.02868
1.52	0.06426	0.12570	0.02803
1.53	0.06301	0.12379	0.02739
1.54	0.06178	0.12191	0.02677
1.55	0.06057	0.12004	0.02615
1.56	0.05938	0.11819	0.02555
1.57	0.05821	0.11635	0.02497
1.58	0.05705	0.11453	0.02439
1.59	0.05592	0.11273	0.02382
1.6	0.05480	0.11095	0.02327
1.61	0.05370	0.10918	0.02273
1.62	0.05262	0.10743	0.02220
1.63	0.05155	0.10570	0.02167
1.64	0.05050	0.10399	0.02116
1.65	0.04947	0.10229	0.02066
1.66	0.04846	0.10061	0.02017
1.67	0.04746	0.09895	0.01969
1.68	0.04648	0.09731	0.01922
1.69	0.04551	0.09568	0.01876
1.7	0.04457	0.09407	0.01831
1.71	0.04363	0.09248	0.01787
1.72	0.04272	0.09091	0.01744
1.73	0.04182	0.08936	0.01702
1.74	0.04093	0.08782	0.01660
1.75	0.04006	0.08630	0.01620
1.76	0.03920	0.08480	0.01580
1.77	0.03836	0.08331	0.01541
1.78	0.03754	0.08185	0.01503
1.79	0.03673	0.08040	0.01466
1.8	0.03593	0.07897	0.01430
1.81	0.03515	0.07756	0.01394
1.82	0.03438	0.07616	0.01359
1.83	0.03362	0.07479	0.01325

Lanjutan Tabel 8.53
Tabel Distribusi Normal

k	F'(k)	f(k)	E(k)
1.84	0.03288	0.07343	0.01292
1.85	0.03216	0.07208	0.01259
1.86	0.03144	0.07076	0.01227
1.87	0.03074	0.06945	0.01196
1.88	0.03005	0.06816	0.01166
1.89	0.02938	0.06689	0.01136
1.9	0.02872	0.06563	0.01107
1.91	0.02807	0.06439	0.01079
1.92	0.02743	0.06317	0.01051
1.93	0.02680	0.06197	0.01024
1.94	0.02619	0.06078	0.00997
1.95	0.02559	0.05961	0.00971
1.96	0.02500	0.05846	0.00946
1.97	0.02442	0.05732	0.00921
1.98	0.02385	0.05620	0.00897
1.99	0.02330	0.05509	0.00873
2	0.02275	0.05400	0.00850
2.01	0.02222	0.05293	0.00828
2.02	0.02169	0.05188	0.00806
2.03	0.02118	0.05084	0.00784
2.04	0.02068	0.04981	0.00764
2.05	0.02018	0.04880	0.00743
2.06	0.01970	0.04781	0.00723
2.07	0.01923	0.04683	0.00704
2.08	0.01876	0.04587	0.00685
2.09	0.01831	0.04493	0.00666
2.1	0.01786	0.04399	0.00648
2.11	0.01743	0.04308	0.00630
2.12	0.01700	0.04218	0.00613
2.13	0.01659	0.04129	0.00596
2.14	0.01618	0.04042	0.00580
2.15	0.01578	0.03956	0.00564
2.16	0.01539	0.03872	0.00548
2.17	0.01500	0.03789	0.00533
2.18	0.01463	0.03707	0.00518
2.19	0.01426	0.03627	0.00504
2.2	0.01390	0.03548	0.00490
2.21	0.01355	0.03471	0.00476
2.22	0.01321	0.03395	0.00462
2.23	0.01287	0.03320	0.00449
2.24	0.01255	0.03247	0.00437
2.25	0.01222	0.03175	0.00424
2.26	0.01191	0.03104	0.00412
2.27	0.01160	0.03034	0.00400
2.28	0.01130	0.02966	0.00389
2.29	0.01101	0.02899	0.00378

k	F'(k)	f(k)	E(k)
2.3	0.01072	0.02833	0.00367
2.31	0.01044	0.02769	0.00356
2.32	0.01017	0.02705	0.00346
2.33	0.00990	0.02643	0.00336
2.34	0.00964	0.02582	0.00326
2.35	0.00939	0.02522	0.00317
2.36	0.00914	0.02464	0.00307
2.37	0.00889	0.02406	0.00298
2.38	0.00866	0.02350	0.00289
2.39	0.00842	0.02294	0.00281
2.4	0.00820	0.02240	0.00273
2.41	0.00798	0.02187	0.00265
2.42	0.00776	0.02135	0.00257
2.43	0.00755	0.02083	0.00249
2.44	0.00734	0.02033	0.00242
2.45	0.00714	0.01984	0.00234
2.46	0.00695	0.01936	0.00227
2.47	0.00676	0.01889	0.00220
2.48	0.00657	0.01843	0.00214
2.49	0.00639	0.01798	0.00207
2.5	0.00621	0.01753	0.00201
2.51	0.00604	0.01710	0.00195
2.52	0.00587	0.01667	0.00189
2.53	0.00570	0.01626	0.00183
2.54	0.00554	0.01585	0.00177
2.55	0.00539	0.01545	0.00172
2.56	0.00523	0.01506	0.00167
2.57	0.00508	0.01468	0.00161
2.58	0.00494	0.01431	0.00156
2.59	0.00480	0.01394	0.00151
2.6	0.00466	0.01359	0.00147
2.61	0.00453	0.01324	0.00142
2.62	0.00440	0.01290	0.00138
2.63	0.00427	0.01256	0.00133
2.64	0.00415	0.01223	0.00129
2.65	0.00402	0.01192	0.00125
2.66	0.00391	0.01160	0.00121
2.67	0.00379	0.01130	0.00117
2.68	0.00368	0.01100	0.00113
2.69	0.00357	0.01071	0.00110
2.7	0.00347	0.01042	0.00106
2.71	0.00336	0.01015	0.00103
2.72	0.00326	0.00987	0.00100
2.73	0.00317	0.00961	0.00096
2.74	0.00307	0.00935	0.00093
2.75	0.00298	0.00910	0.00090
2.76	0.00289	0.00885	0.00087
2.77	0.00280	0.00861	0.00084
2.78	0.00272	0.00837	0.00082
2.79	0.00264	0.00814	0.00079

Lanjutan Tabel 8.53
Tabel Distribusi Normal

k	F'(k)	f(k)	E(k)
2.78	0.00272	0.00837	0.00082
2.79	0.00264	0.00814	0.00079
2.8	0.00256	0.00792	0.00076
2.81	0.00248	0.00770	0.00074
2.82	0.00240	0.00748	0.00071
2.83	0.00233	0.00728	0.00069
2.84	0.00226	0.00707	0.00067
2.85	0.00219	0.00687	0.00064
2.86	0.00212	0.00668	0.00062
2.87	0.00205	0.00649	0.00060
2.88	0.00199	0.00631	0.00058
2.89	0.00193	0.00613	0.00056
2.9	0.00187	0.00595	0.00054
2.91	0.00181	0.00578	0.00052
2.92	0.00175	0.00562	0.00051
2.93	0.00169	0.00546	0.00049
2.94	0.00164	0.00530	0.00047
2.95	0.00159	0.00514	0.00046
2.96	0.00154	0.00499	0.00044
2.97	0.00149	0.00485	0.00043
2.98	0.00144	0.00471	0.00041
2.99	0.00139	0.00457	0.00040
3	0.00135	0.00443	0.00038
3.01	0.00131	0.00430	0.00037
3.02	0.00126	0.00417	0.00036
3.03	0.00122	0.00405	0.00034
3.04	0.00118	0.00393	0.00033
3.05	0.00114	0.00381	0.00032
3.06	0.00111	0.00370	0.00031
3.07	0.00107	0.00358	0.00030
3.08	0.00104	0.00348	0.00029
3.09	0.00100	0.00337	0.00028
3.1	0.00097	0.00327	0.00027
3.11	0.00094	0.00317	0.00026
3.12	0.00090	0.00307	0.00025
3.13	0.00087	0.00298	0.00024
3.14	0.00084	0.00288	0.00023
3.15	0.00082	0.00279	0.00022
3.16	0.00079	0.00271	0.00022
3.17	0.00076	0.00262	0.00021
3.18	0.00074	0.00254	0.00020
3.19	0.00071	0.00246	0.00019
3.2	0.00069	0.00238	0.00019
3.21	0.00066	0.00231	0.00018
3.22	0.00064	0.00224	0.00017
3.23	0.00062	0.00217	0.00017
3.24	0.00060	0.00210	0.00016
3.25	0.00058	0.00203	0.00015
3.26	0.00056	0.00196	0.00015
3.27	0.00054	0.00190	0.00014

k	F'(k)	f(k)	E(k)
3.28	0.00052	0.00184	0.00014
3.29	0.00050	0.00178	0.00013
3.3	0.00048	0.00172	0.00013
3.31	0.00047	0.00167	0.00012
3.32	0.00045	0.00161	0.00012
3.33	0.00043	0.00156	0.00011
3.34	0.00042	0.00151	0.00011
3.35	0.00040	0.00146	0.00011
3.36	0.00039	0.00141	0.00010
3.37	0.00038	0.00136	0.00010
3.38	0.00036	0.00132	0.00009
3.39	0.00035	0.00128	0.00009
3.4	0.00034	0.00123	0.00009
3.41	0.00032	0.00119	0.00008
3.42	0.00031	0.00115	0.00008
3.43	0.00030	0.00111	0.00008
3.44	0.00029	0.00107	0.00007
3.45	0.00028	0.00104	0.00007
3.46	0.00027	0.00100	0.00007
3.47	0.00026	0.00097	0.00007
3.48	0.00025	0.00094	0.00006
3.49	0.00024	0.00090	0.00006
3.5	0.00023	0.00087	0.00006
3.51	0.00022	0.00084	0.00006
3.52	0.00022	0.00081	0.00005
3.53	0.00021	0.00079	0.00005
3.54	0.00020	0.00076	0.00005
3.55	0.00019	0.00073	0.00005
3.56	0.00019	0.00071	0.00005
3.57	0.00018	0.00068	0.00004
3.58	0.00017	0.00066	0.00004
3.59	0.00017	0.00063	0.00004
3.6	0.00016	0.00061	0.00004
3.61	0.00015	0.00059	0.00004
3.62	0.00015	0.00057	0.00004
3.63	0.00014	0.00055	0.00003
3.64	0.00014	0.00053	0.00003
3.65	0.00013	0.00051	0.00003
3.66	0.00013	0.00049	0.00003
3.67	0.00012	0.00047	0.00003
3.68	0.00012	0.00046	0.00003
3.69	0.00011	0.00044	0.00003
3.7	0.00011	0.00042	0.00003
3.71	0.00010	0.00041	0.00002
3.72	0.00010	0.00039	0.00002
3.73	0.00010	0.00038	0.00002
3.74	0.00009	0.00037	0.00002
3.75	0.00009	0.00035	0.00002
3.76	0.00008	0.00034	0.00002
3.77	0.00008	0.00033	0.00002

Lanjutan Tabel 8.53
Tabel Distribusi Normal

k	F(k)	f(k)	E(k)
3.78	0.00008	0.00032	0.00002
3.79	0.00008	0.00030	0.00002
3.8	0.00007	0.00029	0.00002
3.81	0.00007	0.00028	0.00002
3.82	0.00007	0.00027	0.00002
3.83	0.00006	0.00026	0.00002
3.84	0.00006	0.00025	0.00001
3.85	0.00006	0.00024	0.00001
3.86	0.00006	0.00023	0.00001
3.87	0.00005	0.00022	0.00001
3.88	0.00005	0.00021	0.00001
3.89	0.00005	0.00021	0.00001
3.9	0.00005	0.00020	0.00001
3.91	0.00005	0.00019	0.00001
3.92	0.00004	0.00018	0.00001
3.93	0.00004	0.00018	0.00001
3.94	0.00004	0.00017	0.00001
3.95	0.00004	0.00016	0.00001
3.96	0.00004	0.00016	0.00001
3.97	0.00004	0.00015	0.00001
3.98	0.00003	0.00014	0.00001
3.99	0.00003	0.00014	0.00001
4	0.00003	0.00013	0.00001

Analisis Sensitivitas

Batas Maximum dan minimum persentase yang dipakai untuk melakukan analisis sensitivitas diambil dari rata – rata baru dibandingkan dengan rata – rata saat ini.

a. Harga Beli

Tabel L9.1

Harga Beli Baru

No	Kode Barang	Harga Saat Ini	Harga Baru	% Perubahan
Suplier : HMI				
1	8994571004777	Rp204.000,00	Rp212.000,00	3,922%
2	8994571004760	Rp216.000,00	Rp226.500,00	4,861%
Suplier : Eukanuba				
1	19014006687	Rp387.875,00	Rp387.875,00	0,000%
2	19014113644	Rp369.750,00	Rp369.750,00	0,000%
3	19014113637	Rp199.375,00	Rp205.000,00	2,821%
4	19014006632	Rp199.375,00	Rp205.000,00	2,821%
5	19014140640	Rp369.750,00	Rp369.750,00	0,000%
6	19014106080	Rp134.125,00	Rp137.500,00	2,516%
7	19014132645	Rp340.750,00	Rp340.750,00	0,000%
8	19014006588	Rp58.000,00	Rp60.000,00	3,448%
9	19014006700	Rp387.875,00	Rp387.875,00	0,000%
10	19014140633	Rp199.375,00	Rp205.000,00	2,821%
11	19014113620	Rp94.250,00	Rp95.000,00	0,796%
12	19014106202	Rp304.500,00	Rp304.500,00	0,000%
13	19014114641	Rp340.750,00	Rp340.750,00	0,000%
Suplier : Setrasari				
1	7896642901439	Rp230.000,00	Rp220.000,00	-4,348%
2	7896642900500	Rp235.000,00	Rp225.000,00	-4,255%
3	73893004004	Rp174.570,00	Rp170.000,00	-2,618%

Contoh perhitungan : 8994571004777

$$\begin{aligned}\% \text{ perubahan} &= ((\text{Harga Baru} - \text{Harga Saat Ini}) / \text{Harga Saat Ini}) \times 100\% \\ &= ((\text{Rp. } 212.000,00 - \text{Rp. } 204.000,00) / \text{Rp. } 204.000,00) \times 100\% \\ &= 3,922\%\end{aligned}$$

b. Permintaan

Tabel L9.2
Permintaan Baru

No	Kode Barang	1-Jan-08	8-Jan-08	15-Jan-08	22-Jan-08	29-Jan-08	5-Feb-08	12-Feb-08	19-Feb-08	26-Feb-08	4-Mar-08	11-Mar-08	18-Mar-08	Rata - rata Permintaan Baru	Rata - rata Permintaan Saat Ini	% Perubahan
Suplier : HMI																
1	8994571004777	20	28	34	33	38	36	31	33	49	38	50	49	36,583	31,839	14,903%
2	8994571004760	20	19	22	22	22	23	26	35	29	24	40	35	26,417	23,749	11,235%
Suplier : Eukanuba																
1	19014006687	4	9	5	7	7	5	3	7	9	7	10	8	6,750	6,000	12,500%
2	19014113644	5	2	6	4	0	0	6	4	5	4	9	9	4,500	5,000	-10,000%
3	19014113637	3	9	6	4	8	5	10	9	8	10	9	8	7,417	8,000	-7,292%
4	19014006632	0	10	5	6	9	12	5	0	10	8	2	10	6,417	6,000	6,944%
5	19014140640	8	8	2	10	5	0	8	3	7	6	9	10	6,333	7,000	-9,524%
6	19014106080	2	0	0	1	4	1	1	0	1	2	7	8	2,250	2,000	12,500%
7	19014132645	1	2	2	5	4	5	3	9	4	2	8	5	4,167	4,000	4,167%
8	19014006588	2	3	3	1	0	4	2	0	0	3	2	2	1,833	2,000	-8,333%
9	19014006700	2	0	6	5	1	4	4	0	2	2	4	3	2,750	3,000	-8,333%
10	19014140633	2	1	2	0	2	1	1	2	0	1	1	0	1,083	1,000	8,333%
11	19014113620	6	5	15	9	5	12	18	9	5	13	16	12	10,417	11,000	-5,303%
12	19014106202	9	4	5	6	6	8	5	6	5	3	9	10	6,333	7,000	-9,524%
13	19014114641	5	5	5	3	3	0	5	5	5	5	5	5	4,250	4,000	6,250%
Suplier : Setrasari																
1	7896642901439	2	4	1	5	3	5	3	2	0	1	4	3	2,750	3,000	-8,333%
2	7896642900500	5	6	10	7	6	9	9	10	9	9	8	10	8,167	9,000	-9,259%
3	73893004004	5	5	2	3	4	1	1	4	1	1	2	4	2,750	3,000	-8,333%

Contoh perhitungan :

$$\begin{aligned} \% \text{ perubahan} &= ((\text{Rata - rata Permintaan Baru} - \text{Rata - rata Permintaan Saat Ini}) / \text{Rata - rata Permintaan Saat Ini}) \times 100\% \\ &= ((36,583 - 31,839) / 31,839) \times 100\% \\ &= 14,903\% \end{aligned}$$

Permintaan Turun 10 %

- Suplier HMI & Eukanuba

Tabel L9.3
Penurunan Permintaan 10 % Suplier HMI dan Eukanuba

No	Kode Barang	Nama Barang	Jumlah												Total	R	σ	
			Data ke 1	Data ke 2	Data ke 3	Data ke 4	Data ke 5	Data ke 6	Data ke 7	Data ke 8	Data ke 9	Data ke 10	Data ke 11	Data ke 12				
Suplier HMI																		
1	8994571004777	MA 21 - OPTIMA L&R ADULT 18,14 KG	20	19	25	18	20	27	23	25	27	25	24	25	278	23,17	3,12856	
2	8994571004760	MA 21 - OPTIMA L&R PUPPY 18,14 KG	22	18	26	18	23	27	23	23	20	24	21	19	264	22	2,92326	
Suplier Eukanuba																		
1	19014006687	MA 07 - EUKA NATURAL L&R PUPPY 15,87KG	6	4	8	7	6	8	3	8	7	2	6	7	72	6	2	
2	19014113644	MA 07 - EUKA PUPPY SMALL BREED 15KG	2	3	10	3	0	8	8	3	3	7	3	3	53	4,417	3,0289	
3	19014113637	MA 07 - EUKA PUPPY SMALL BREED 7,5KG	6	4	6	8	13	9	9	6	6	5	8	6	86	7,167	2,4058	
4	19014006632	MA 07 - EUKA NATURAL L&R PUPPY 6,8 KG	6	6	12	5	4	10	6	1	4	6	7	9	76	6,333	2,93361	
5	19014140640	MA 07 - EUKA PUPPY LARGE BREED 15 KG	0	0	1	3	4	5	4	2	5	9	1	2	36	3	2,5937	
6	19014132645	MA 07 - EUKA ADULT LARGE BREED 15 KG	0	1	2	7	4	6	3	1	1	4	5	0	34	2,833	2,36771	
7	19014006588	MA 07 - EUKA NATURAL L&R PUPPY 1,81 KG	20	13	27	15	20	25	15	10	13	19	6	0	183	15,25	7,67671	
8	19014006700	MA 07 - EUKA NATURAL L&R LARGE BREED ADULT 15,8KG	1	2	3	4	1	2	4	2	2	6	2	0	29	2,417	1,62135	
9	19014113620	MA 07 - EUKA PUPPY SMALL BREED 3KG	7	13	3	6	10	13	10	9	10	7	9	9	106	8,833	2,82307	
10	19014106202	MK 07 - IAMS KITTEN 9,07 KG	0	0	0	0	4	0	3	3	4	3	4	2	23	1,917	1,78164	
11	19014114641	MA 07 - EUKA ADULT MEDIUM BREED 15 KG	0	0	1	2	1	2	1	4	4	3	2	0	20	1,667	1,43548	
12	19014106080	MK 07 - IAMS KITTEN 3,63 KG	7	5	5	3	7	1	4	4	4	2	4	4	50	4,167	1,74946	
13	19014140633	MA 07 - EUKA PUPPY LARGE BREED 7,5 KG	3	3	9	1	2	2	0	3	3	2	3	1	32	2,667	2,22928	

Tabel L9.4
Data – Data Pengendalian Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	R	σ	C	P	i	H	L	π	μ_L	σ_L
		(unit/ minggu)	(unit)	(Rp/pesan)	(Rp/ unit)	per minggu(%)	(Rp/unit/minggu)	(minggu)	(Rp/unit)	(unit)	(unit)
Supplier : HMI											
1	8994571004777	23,167	3,129	Rp12.937,297	Rp204.000	0,264%	Rp538,97	0,143	Rp116.000,00	3,313	1,183
2	8994571004760	22,000	2,923	Rp12.937,297	Rp216.000	0,264%	Rp570,67	0,143	Rp124.000,00	3,146	1,105
Supplier : Eukanuba											
1	19014006687	6,000	2,000	Rp12.937,297	Rp387.875	0,230%	Rp892,50	0,143	Rp92.125,00	0,858	0,756
2	19014113644	4,417	3,029	Rp12.937,297	Rp369.750	0,230%	Rp850,79	0,143	Rp90.250,00	0,632	1,145
3	19014113637	7,167	2,406	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	1,025	0,910
4	19014006632	6,333	2,934	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	0,906	1,109
5	19014140640	3,000	2,594	Rp12.937,297	Rp369.750	0,230%	Rp850,79	0,143	Rp90.250,00	0,429	0,981
6	19014106080	2,833	2,368	Rp12.937,297	Rp134.125	0,230%	Rp308,62	0,143	Rp50.875,00	0,405	0,895
7	19014132645	15,250	7,677	Rp12.937,297	Rp340.750	0,230%	Rp784,07	0,143	Rp99.250,00	2,181	2,903
8	19014006588	2,417	1,621	Rp12.937,297	Rp58.000	0,230%	Rp133,46	0,143	Rp22.000,00	0,346	0,613
9	19014006700	8,833	2,823	Rp12.937,297	Rp387.875	0,230%	Rp892,50	0,143	Rp92.125,00	1,263	1,068
10	19014140633	1,917	1,782	Rp12.937,297	Rp199.375	0,230%	Rp458,76	0,143	Rp50.625,00	0,274	0,674
11	19014113620	1,667	1,435	Rp12.937,297	Rp94.250	0,230%	Rp216,87	0,143	Rp35.750,00	0,238	0,543
12	19014106202	4,167	1,749	Rp12.937,297	Rp304.500	0,230%	Rp700,65	0,143	Rp55.500,00	0,596	0,662
13	19014114641	2,667	2,229	Rp12.937,297	Rp340.750	0,230%	Rp784,07	0,143	Rp99.250,00	0,381	0,843

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit/ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H= Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp.204.000 = Rp.538,968$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

μ_L = per min taan pada saat lead time (unit) = $R * L = 23,167 * 0,143 = 3,313$

σ_L = s tan dar deviasi pada saat lead time (unit / min ggu) = $\sigma * \sqrt{L} = 3,129 * \sqrt{0,143} = 1,183$

Tabel L9.5

Pengolahan Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1?$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	33,349	0,00664	2,476	0,00216	0,002559	33,730	0,380	-	-	-
2	8994571004760	31,583	0,00656	2,4805	0,00213	0,002358	31,938	0,355	-	-	-
Supplier : Eukanuba											
1	19014006687	13,189	0,02085	2,972	0,01455	0,011008	13,696	0,507	-	-	-
2	19014113644	11,590	0,02414	4,034	0,04142	0,047442	13,371	1,781	-	-	-
3	19014113637	20,105	0,02479	3,428	0,02096	0,019066	20,841	0,737	-	-	-
4	19014006632	18,900	0,02633	3,929	0,0332694	0,036908	20,219	1,319	-	-	-
5	19014140640	9,552	0,02914	3,058	0,0499018	0,048944	11,063	1,511	-	-	-
6	19014106080	15,412	0,03194	2,6840	0,0484181	0,043352	16,675	1,262	-	-	-
7	19014132645	22,433	0,01149	13,060	0,0407854	0,118399	30,990	8,556	-	-	-
8	19014006588	21,646	0,05153	1,52780	0,0446875	0,027399	22,144	0,499	-	-	-
9	19014006700	16,003	0,01725	4,4100	0,016549	0,017667	16,980	0,977	-	-	-
10	19014140633	10,397	0,04685	1,546	0,0552955	0,037254	11,129	0,732	-	-	-
11	19014113620	14,101	0,04882	1,2584	0,0441175	0,023948	14,561	0,459	-	-	-
12	19014106202	12,404	0,03622	2,14950	0,0255637	0,016912	12,847	0,442	-	-	-
13	19014114641	9,381	0,02704	2,7470	0,0391032	0,032964	10,500	1,119	-	-	-

Lanjutan Tabel L9.5

Pengolahan Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	33,730	0,00672	2,472	0,00219	0,002591	33,734	0,005	OK	6,237	33,734
2	8994571004760	31,938	0,00664	2,476	0,00216	0,002391	31,943	0,005	OK	5,883	31,943
Supplier : Eukanuba											
1	19014006687	13,696	0,02164	2,9457	0,01511	0,011430	13,715	0,019	OK	3,086	13,715
2	19014113644	13,371	0,02775	3,808	0,04727	0,054146	13,604	0,233	-	-	-
3	19014113637	20,841	0,02568	3,398	0,02171	0,019755	20,868	0,026	OK	4,116	20,868
4	19014006632	20,219	0,02812	3,847	0,0355012	0,039383	20,304	0,085	OK	5,173	20,304
5	19014140640	11,063	0,03360	2,835	0,0568851	0,055794	11,258	0,195	-	-	-
6	19014106080	16,675	0,03447	2,5780	0,0519367	0,046502	16,763	0,088	OK	2,713	16,763
7	19014132645	30,990	0,01580	11,947	0,055839	0,162099	33,602	2,612	-	-	-
8	19014006588	22,144	0,05266	1,5102	0,0456043	0,027961	22,154	0,010	OK	1,272	22,154
9	19014006700	16,980	0,01828	4,3530	0,0175611	0,018747	17,037	0,058	OK	5,910	17,037
10	19014140633	11,129	0,04999	1,4786	0,0585577	0,039452	11,171	0,042	OK	1,270	11,171
11	19014113620	14,561	0,05033	1,2337	0,0453419	0,024613	14,573	0,013	OK	0,908	14,573
12	19014106202	12,847	0,03747	2,1256	0,0264442	0,017495	12,862	0,015	OK	2,002	12,862
13	19014114641	10,500	0,03017	2,6010	0,04328	0,036482	10,613	0,112	-	-	-

Lanjutan Tabel L9.5

Pengolahan Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
2	19014113644	13,604	0,02822	3,7808	0,04803	0,055018	13,634	0,030	OK	4,962	13,634
5	19014140640	11,258	0,03417	2,809	0,0577662	0,056658	11,283	0,024	OK	3,184	11,283
7	19014132645	33,602	0,01711	11,672	0,0603619	0,175229	34,348	0,746	-	-	-
13	19014114641	10,613	0,03048	2,5874	0,04369	0,036829	10,624	0,011	OK	2,563	10,624

Lanjutan Tabel L9.5

Pengolahan Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
7	19014132645	34,348	0,01748	11,597	0,061659	0,178994	34,559	0,211	-	-	-

Lanjutan Tabel L9.5

Pengolahan Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
7	19014132645	34,559	0,01759	11,575	0,0620449	0,180115	34,621	0,063	OK	35,783	34,621

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$Q \text{ Lama} = \sqrt{\frac{2RC}{H}} = \sqrt{\frac{2 * 23,167 * Rp.12.937,297}{Rp.538,97}} = 33,3495 \text{ unit}$$

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.538,968 * 33,349}{Rp.116.000 * 23,167 + Rp.538,968 * 33,349} = 0,00664$$

Cari $k = 2,476$ (tabel normal) $\rightarrow E(k) = 0,00216$

$$Nk = \sigma_L * E(k) = 1,183 * 0,00216 = 0,002559$$

$$Q \text{ baru} = \sqrt{\frac{2R(C + \pi Nk)}{H}} = \sqrt{\frac{2 * 23,167 * (Rp.12.937,297 + Rp.116.000 * 0,002559)}{Rp.538,968}} = 33,730 \text{ unit}$$

$$|Q \text{ baru} - Q \text{ lama}| < 0.1 \text{ optimal ??}$$

$$0.1 = \text{toleransi} = \varepsilon$$

Jika belum optimal lakukan perhitungan dari awal sampai optimal

Tabel L9.6

Ongkos Total Metode Q Usulan Penurunan Permintaan 10 %

No	Kode Barang	R (unit/ minggu)	Q (unit)	C (Rp/pesan)	B (unit)	μ_L (Unit)	H	Nk	π	O.pesan	O.simpan	O.stockout	O.total
Supplier : HMI													
1	8994571004777	23,167	33,73444	Rp12.937,297	6,237	3,313	Rp538,968	0,00259	Rp116.000	Rp8.884,5124	Rp10.668,53	Rp206,38	Rp39.551,72
2	8994571004760	22,000	31,94297	Rp12.937,297	5,883	3,146	Rp570,672	0,00239	Rp124.000	Rp8.910,27	Rp10.677,81	Rp204,21	
Supplier : Eukanuba													
1	19014006687	6,000	13,71513	Rp12.937,297	3,086	0,858	Rp892,500	0,01143	Rp92.125	Rp5.659,72	Rp8.118,94	Rp460,66	Rp174.828,25
2	19014113644	4,417	13,63354	Rp12.937,297	4,962	0,632	Rp850,795	0,05502	Rp90.250	Rp4.191,11	Rp9.530,84	Rp1.608,56	
3	19014113637	7,167	20,86750	Rp12.937,297	4,116	1,025	Rp458,762	0,01975	Rp50.625	Rp4.443,14	Rp6.213,87	Rp343,46	
4	19014006632	6,333	20,30407	Rp12.937,297	5,173	0,906	Rp458,762	0,03938	Rp50.625	Rp4.035,46	Rp6.633,29	Rp621,91	
5	19014140640	3,000	11,28262	Rp12.937,297	3,184	0,429	Rp850,795	0,05666	Rp90.250	Rp3.439,97	Rp7.191,84	Rp1.359,63	
6	19014106080	2,833	16,76255	Rp12.937,297	2,713	0,405	Rp308,622	0,04650	Rp50.875	Rp2.186,76	Rp3.313,37	Rp399,88	
7	19014132645	15,250	34,62146	Rp12.937,297	35,783	2,181	Rp784,066	0,18011	Rp99.250	Rp5.698,60	Rp40.060,08	Rp7.874,15	
8	19014006588	2,417	22,15439	Rp12.937,297	1,272	0,346	Rp133,458	0,02796	Rp22.000	Rp1.411,24	Rp1.605,65	Rp67,10	
9	19014006700	8,833	17,03748	Rp12.937,297	5,910	1,263	Rp892,500	0,01875	Rp92.125	Rp6.707,53	Rp11.767,21	Rp895,44	
10	19014140633	1,917	11,17097	Rp12.937,297	1,270	0,274	Rp458,762	0,03945	Rp50.625	Rp2.219,73	Rp3.037,52	Rp342,68	
11	19014113620	1,667	14,57306	Rp12.937,297	0,908	0,238	Rp216,869	0,02461	Rp35.750	Rp1.479,59	Rp1.730,80	Rp100,63	
12	19014106202	4,167	12,86156	Rp12.937,297	2,002	0,596	Rp700,655	0,01749	Rp55.500	Rp4.191,20	Rp5.503,29	Rp314,55	
13	19014114641	2,667	10,62381	Rp12.937,297	2,563	0,381	Rp784,066	0,03683	Rp99.250	Rp3.247,37	Rp5.903,97	Rp917,51	

Contoh Perhitungan : 8994571004777

B = *reorder point* (unit)

Nk = jumlah unit *lost sales* selama *lead time* (unit/ bulan)

π = biaya *stock out* (Rp/ unit)

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{23,167}{33,734} * Rp.12.937,297 = Rp.8.884,5124$$

$$\begin{aligned}\text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.538,968 * \left(\frac{33,734}{2} + 6,237 - 3,313 + 0,00259 \right) \\ &= Rp.10.668,53\end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{23,167}{33,734} * 0,00259 * Rp.116.000 = Rp.206,38$$

➤ Suplier Setrasari

Tabel L9.7
Penurunan Permintaan 10 % Suplier Setrasari

No	Kode Barang	Nama Barang	Jumlah													R	σ
			Data ke 1	Data ke 2	Data ke 3	Data ke 4	Data ke 5	Data ke 6	Data ke 7	Data ke 8	Data ke 9	Data ke 10	Data ke 11	Data ke 12	Total		
1	7896642900500	MA 13 - DOG FOOD CROC ORIGINAL 25 KG	11	9	10	9	9	9	8	9	8	10	9	9	110	9,167	0,835
2	73893004004	MA 13 - DOG FOOD SUPREME ADULT 18 KG	5	5	5	5	4	4	4	4	4	4	4	4	52	4,333	0,492
3	7896642901439	MA 13 - CICLOS CROISSANCE PUP 15 KG	4	4	4	4	4	4	4	3	4	3	3	4	38	3,750	0,452

Tabel L9.8

Rata – rata Ongkos Pembelian per Minggu Penurunan Permintaan 10 % Suplier Setrasari

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)	i
Suplier Setrasari					
1	7896642901439	9,167	Rp230.000,00	Rp2.108.333,33	0,001306
2	7896642900500	4,333	Rp235.000,00	Rp1.018.333,33	0,001306
3	73893004004	3,750	Rp174.570,00	Rp654.637,50	0,001306

Contoh perhitungan : 7896642901439

Ongkos Pembelian = R x Harga beli

$$= 9,167 \times \text{Rp}, 230,000,00 = \text{Rp}, 2,108,333,33$$

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * Rp.25.577,96}{0,1306\% * Rp.3.781.304,17}} = 3,2185$$

t = 3,2185, sehingga terdapat dua alternatif besarnya t yaitu t = 3 dan t = 4

Tabel L9.9

Metode P Penurunan Permintaan 10 % Suplier Setrasari

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : setrasari													
untuk t = 3													
1	7896642901439	3	Rp300,38	Rp95.000	9,167	0,835	0,143	3,143	0,00940	2,3494	28,811	1,480	32,288
2	7896642900500	3	Rp306,91	Rp55.000	4,333	0,492	0,143	3,143	0,01646	2,133	13,620	0,873	15,482
3	73893004004	3	Rp227,99	Rp45.430	3,750	0,452	0,143	3,143	0,01483	2,1746	11,786	0,802	13,530
Supplier : setrasari													
untuk t = 4													
1	7896642901439	4	Rp300,38	Rp95.000	9,167	0,835	0,143	4,143	0,01249	2,2417	37,978	1,699	41,787
2	7896642900500	4	Rp306,91	Rp55.000	4,333	0,492	0,143	4,143	0,02183	2,0173	17,953	1,002	19,975
3	73893004004	4	Rp227,99	Rp45.430	3,750	0,452	0,143	4,143	0,01968	2,0604	15,536	0,921	17,433

Tabel L9.10

Ongkos Total Metode P Penurunan Permintaan 10 % Suplier Setrasari

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E(k)	Nk	O.simpan (Rp/ minggu)	O.stock out (Rp/minggu)	O.pesan	Total
		(minggu)	(Rp/unit/minggu)	(unit)		(unit/minggu)	(Rp/unit)	(unit)						
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp300,38	32,288	1,311	9,167	Rp95.000	1,480	0,003	0,00469	Rp5.176,13	Rp148,64	Rp8.525,99	Rp18.258,11
2	7896642900500	3	Rp306,91	15,482	0,620	4,333	Rp55.000	0,873	0,006	0,00516	Rp2.567,93	Rp94,62		
3	73893004004	3	Rp227,99	13,530	0,536	3,75	Rp45.430	0,802	0,005	0,00422	Rp1.680,92	Rp63,88		
Supplier : setrasari														
untuk t = 4														
1	7896642901439	4	Rp300,38	41,787	1,311	9,167	Rp95.000	1,699	0,004	0,00738	Rp6.653,41	Rp175,37	Rp6.394,49	Rp18.837,39
2	7896642900500	4	Rp306,91	19,975	0,620	4,333	Rp55.000	1,002	0,008	0,00814	Rp3.282,86	Rp111,87		
3	73893004004	4	Rp227,99	17,433	0,536	3,750	Rp45.430	0,921	0,007	0,00665	Rp2.143,86	Rp75,52		

Contoh perhitungan : 7896642901439 untuk t = 3

E(k) didapat dari tabel normal, E(k) \rightarrow 0,003

$$N(k) = \sigma_{L+t} \cdot E(k) = 1,480 \times 0,003 = 0,00469$$

$$\text{Ongkos simpan} = H * \left(E - \mu_l - \frac{Rxt}{2} + Nk \right) = Rp.300,38 * \left(32,288 - 1,311 - \frac{9,167 * 3}{2} + 0,00469 \right) = Rp.5.176,13$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} \times Nk = \frac{Rp.95000}{3} \times 0,00469 = Rp.148,64$$

$$\text{Ongkos pesan} = \frac{C}{t} = \frac{Rp.25.577,96}{3} = Rp.8.525,99$$

Permintaan Naik 15 %

- Suplier HMI& Eukanuba

Tabel L9.11
Kenaikan Permintaan 15 % Suplier HMI dan Eukanuba

No	Kode Barang	Nama Barang	Jumlah												Total	R	σ
			Data ke 1	Data ke 2	Data ke 3	Data ke 4	Data ke 5	Data ke 6	Data ke 7	Data ke 8	Data ke 9	Data ke 10	Data ke 11	Data ke 12			
Suplier HMI																	
1	8994571004777	MA 21 - OPTIMA L&R ADULT 18,14 KG	26	25	32	22	26	34	29	32	34	32	30	32	354	29,500	3,896
2	8994571004760	MA 21 - OPTIMA L&R PUPPY 18,14 KG	28	22	33	23	29	35	29	29	26	30	27	25	336	28,000	3,766
Suplier Eukanuba																	
1	19014006687	MA 07 - EUKA NATURAL L&R PUPPY 15,87KG	7	5	10	9	7	10	4	10	9	3	7	9	90	7,500	2,431
2	19014113644	MA 07 - EUKA PUPPY SMALL BREED 15KG	3	4	13	4	0	10	10	4	4	9	4	4	69	5,75	3,793
3	19014113637	MA 07 - EUKA PUPPY SMALL BREED 7,5KG	7	5	7	10	17	11	11	7	7	6	10	7	105	8,75	3,279
4	19014006632	MA 07 - EUKA NATURAL L&R PUPPY 6,8 KG	7	7	15	6	5	13	7	2	5	7	9	12	95	7,917	3,728
5	19014140640	MA 07 - EUKA PUPPY LARGE BREED 15 KG	0	0	2	4	5	6	5	3	6	11	2	3	47	3,917	3,029
6	19014132645	MA 07 - EUKA ADULT LARGE BREED 15 KG	0	2	3	9	5	7	4	2	2	5	6	0	45	3,750	2,768
7	19014006588	MA 07 - EUKA NATURAL L&R PUPPY 1,81 KG	26	17	34	19	26	32	19	13	17	25	7	0	235	19,583	9,876
8	19014006700	MA 07 - EUKA NATURAL L&R LARGE BREED ADULT 15 ,8KG	2	3	4	5	2	3	5	3	3	7	3	0	40	3,333	1,775
9	19014113620	MA 07 - EUKA PUPPY SMALL BREED 3KG	9	17	4	7	13	17	13	12	13	9	12	12	138	11,500	3,778
10	19014106202	MK 07 - IAMS KITTEN 9,07 KG	0	0	0	0	5	0	4	4	5	4	5	3	30	2,500	2,276
11	19014114641	MA 07 - EUKA ADULT MEDIUM BREED 15 KG	0	0	2	3	2	3	2	5	5	4	3	0	29	2,417	1,782
12	19014106080	MK 07 - IAMS KITTEN 3,63 KG	9	6	6	4	9	2	5	5	5	3	5	5	64	5,333	2,060
13	19014140633	MA 07 - EUKA PUPPY LARGE BREED 7,5 KG	4	4	11	2	3	3	0	4	4	3	4	2	44	3,667	2,605

Tabel L9.12
Data – Data Pengendalian Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	R	σ	C	P	i	H	L	π	μ_L	σ_L
		(unit/minggu)	(unit)	(Rp/pesan)	(Rp/ unit)	per minggu(%)	(Rp/unit/minggu)	(minggu)	(Rp/unit)	(unit)	(unit)
Supplier : HMI											
1	8994571004777	29,500	3,896	Rp12.937,30	Rp204.000,00	0,264%	Rp538,968	0,143	Rp116.000	4,2185	1,473431
2	8994571004760	28	3,765875	Rp12.937,30	Rp216.000,00	0,264%	Rp570,672	0,143	Rp124.000	4,004	1,424079
Supplier : Eukanuba											
1	19014006687	7,5	2,430862	Rp12.937,30	Rp387.875,00	0,230%	Rp892,500	0,143	Rp92.125	1,0725	0,919239
2	19014113644	5,75	3,792936	Rp12.937,30	Rp369.750,00	0,230%	Rp850,795	0,143	Rp90.250	0,82225	1,434312
3	19014113637	8,75	3,278719	Rp12.937,30	Rp199.375,00	0,230%	Rp458,762	0,143	Rp50.625	1,25125	1,239859
4	19014006632	7,916666667	3,728474	Rp12.937,30	Rp199.375,00	0,230%	Rp458,762	0,143	Rp50.625	1,132083	1,409935
5	19014140640	3,916666667	3,028901	Rp12.937,30	Rp369.750,00	0,230%	Rp850,795	0,143	Rp90.250	0,560083	1,145389
6	19014106080	3,75	2,767506	Rp12.937,30	Rp134.125,00	0,230%	Rp308,622	0,143	Rp50.875	0,53625	1,046542
7	19014132645	19,583333333	9,876127	Rp12.937,30	Rp340.750,00	0,230%	Rp784,066	0,143	Rp99.250	2,800417	3,734691
8	19014006588	3,333333333	1,775251	Rp12.937,30	Rp58.000,00	0,230%	Rp133,458	0,143	Rp22.000	0,476667	0,671317
9	19014006700	11,5	3,777926	Rp12.937,30	Rp387.875,00	0,230%	Rp892,500	0,143	Rp92.125	1,6445	1,428636
10	19014140633	2,5	2,276361	Rp12.937,30	Rp199.375,00	0,230%	Rp458,762	0,143	Rp50.625	0,3575	0,860814
11	19014113620	2,416666667	1,78164	Rp12.937,30	Rp94.250,00	0,230%	Rp216,869	0,143	Rp35.750	0,345583	0,673733
12	19014106202	5,333333333	2,059715	Rp12.937,30	Rp304.500,00	0,230%	Rp700,655	0,143	Rp55.500	0,762667	0,778888
13	19014114641	3,666666667	2,605356	Rp12.937,30	Rp340.750,00	0,230%	Rp784,066	0,143	Rp99.250	0,524333	0,985224

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit/ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H= Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp.204.000 = Rp.538,968$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

μ_L = per min taan pada saat lead time (unit) = $R * L = 29,50 * 0,143 = 4,2185$

σ_L = s tan dar deviasi pada saat lead time (unit / min ggu) = $\sigma * \sqrt{L} = 3,896 * \sqrt{0,143} = 1,4734$

Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama (unit)	F(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	37,63278	0,005892	2,5186	0,00190	0,002793	38,10115	0,468375	-	-	-
2	8994571004760	35,63055	0,005822	2,5228	0,001871	0,002665	36,0827	0,452151	-	-	-
Supplier : Eukanuba											
1	19014006687	14,74563	0,018691	3,721	0,015592	0,014333	15,47985	0,734228	-	-	-
2	19014113644	13,22386	0,02122	5,328	0,044627	0,06401	15,90456	2,680701	-	-	-
3	19014113637	22,21504	0,02249	4,710	0,027725	0,034375	23,66202	1,446974	-	-	-
4	19014006632	21,13072	0,023616	5,159	0,038456	0,054221	23,26463	2,133913	-	-	-
5	19014140640	10,91397	0,025597	3,880	0,047726	0,054665	12,82722	1,913256	-	-	-
6	19014106080	17,73124	0,027884	3,4380	0,045736	0,047865	19,32808	1,596838	-	-	-
7	19014132645	25,42166	0,010151	17,387	0,046335	0,173047	38,78407	13,36241	-	-	-
8	19014006588	25,42166	0,044219	1,92300	0,036598	0,024569	25,94728	0,525625	-	-	-
9	19014006700	18,25919	0,015149	6,0500	0,019756	0,028224	20,01011	1,750924	-	-	-
10	19014140633	11,87444	0,041266	2,166	0,062238	0,053575	13,05997	1,185528	-	-	-
11	19014113620	16,98033	0,040881	1,8378	0,042093	0,028359	17,63312	0,652789	-	-	-
12	19014106202	14,03409	0,032152	2,66680	0,025365	0,019757	14,61672	0,58263	-	-	-
13	19014114641	11,00009	0,023151	3,5180	0,035146	0,034627	12,3752	1,375108	-	-	-

Lanjutan Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama	F(k)	k	E (k)	Nk	Q baru	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$	Q
		(unit)					(unit)			(unit)	(unit)
Supplier : HMI											
1	8994571004777	38,10115	0,005965	2,5142	0,001922	0,002832	38,10757	0,006415	OK	7,923001	38,10757
2	8994571004760	36,0827	0,005896	2,5183	0,001898	0,002702	36,08904	0,006341	OK	7,590257	36,08904
Supplier : Eukanuba											
1	19014006687	15,47985	0,019604	3,681	0,016359	0,015037	15,51503	0,035177	OK	4,456218	15,51503
2	19014113644	15,90456	0,025413	4,966	0,053045	0,076082	16,36101	0,456445	-	-	-
3	19014113637	23,66202	0,023919	4,634	0,029488	0,036561	23,75105	0,089037	OK	6,996756	23,75105
4	19014006632	23,26463	0,02594	5,009	0,042171	0,059458	23,46048	0,195852	-	-	-
5	19014140640	12,82722	0,029949	3,607	0,055289	0,063327	13,1048	0,277581	-	-	-
6	19014106080	19,32808	0,030319	3,3088	0,049493	0,051797	19,45342	0,125341	-	-	-
7	19014132645	38,78407	0,015404	15,491	0,070155	0,262007	44,10505	5,320981	-	-	-
8	19014006588	25,94728	0,045092	1,90760	0,037286	0,025031	25,95706	0,009774	OK	1,757271	25,95706
9	19014006700	20,01011	0,016578	5,9310	0,021643	0,030919	20,16936	0,159247	-	-	-
10	19014140633	13,05997	0,0452	2,044	0,067508	0,058112	13,15545	0,095481	OK	2,117003	13,15545
11	19014113620	17,63312	0,042386	1,8030	0,043541	0,029335	17,65516	0,022037	OK	1,560325	17,65516
12	19014106202	14,61672	0,033442	2,63580	0,026382	0,020548	14,63958	0,022864	OK	2,81566	14,63958
13	19014114641	12,3752	0,02597	3,3530	0,039194	0,038615	12,52386	0,148667	-	-	-

Lanjutan Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama	F'(k)	k	E (k)	Nk	Q baru	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$	Q
		(unit)					(unit)			(unit)	(unit)
Supplier : Eukanuba											
2	19014113644	16,36101	0,026123	4,912	0,054436	0,078078	16,43524	0,074228	OK	7,867589	16,43524
4	19014006632	23,46048	0,026152	4,996	0,042509	0,059936	23,47826	0,017773	OK	8,176119	23,47826
5	19014140640	13,1048	0,030578	3,5708	0,056384	0,064582	13,14452	0,039713	OK	4,650039	13,14452
6	19014106080	19,45342	0,030509	3,2993	0,049782	0,052099	19,46303	0,009605	OK	3,989106	19,46303
7	19014132645	44,10505	0,017481	14,926	0,079431	0,296652	46,0111	1,90605	-	-	-
9	19014006700	20,16936	0,016707	5,9210	0,021809	0,031157	20,18335	0,013989	OK	10,10345	20,18335
13	19014114641	12,52386	0,026274	3,3364	0,039627	0,039042	12,53969	0,015821	OK	3,811435	12,53969

Lanjutan Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama	F'(k)	k	E (k)	Nk	Q baru	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$	Q
		(unit)					(unit)			(unit)	(unit)
Supplier : Eukanuba											
7	19014132645	46,0111	0,018223	14,740	0,082751	0,309051	46,67434	0,66324	-	-	-

Lanjutan Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk =	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
7	19014132645	46,67434	0,01848	14,678	0,083889	0,3133	46,89948	0,225146	-	-	-

Lanjutan Tabel L9.13

Pengolahan Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
7	19014132645	46,89948	0,018568	14,657	0,084278	0,314753	46,97621	0,076725	OK	57,53978	46,97621

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$Q \text{ Lama} = \sqrt{\frac{2RC}{H}} = \sqrt{\frac{2 * 29,5 * Rp.12.937,297}{Rp.538,97}} = 37,6327 \text{ unit}$$

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.538,968 * 37,6327}{Rp.116.000 * 29,5 + Rp.538,968 * 37,637} = 0,005892$$

Cari $k = 2,5186$ (tabel normal) $\rightarrow E(k) = 0,00190$

$$Nk = \sigma_L * E(k) = 1,473 * 0,00190 = 0,002793$$

$$Q \text{ baru} = \sqrt{\frac{2R(C + \pi Nk)}{H}} = \sqrt{\frac{2 * 29,5 * (Rp.12.937,297 + Rp.116.000 * 0,002793)}{Rp.538,968}} = 38,101 \text{ unit}$$

$|Q \text{ baru} - Q \text{ lama}| < 0.1$ optimal ??

$0.1 = \text{toleransi} = \varepsilon$

Jika belum optimal lakukan perhitungan dari awal sampai optimal

Tabel L9.14

Ongkos Total Metode Q Usulan Kenaikan Permintaan 15 %

No	Kode Barang	R (unit/ minggu)	Q lama (unit)	C (Rp/pesan)	B (unit)	μ_L (Unit)	H	Nk	π	O.pesan	O.simpan	O.stockout	O.total
Supplier : HMI													
1	8994571004777	29,5	38,10757	12937,3	7,923001	4,2185	538,968	0,002832	116000	Rp10.015,08	Rp12.267,51	Rp254,30	Rp45.180,02
2	8994571004760	28	36,08904	12937,3	7,590257	4,004	570,672	0,002702	124000	Rp10.037,52	Rp12.345,62	Rp259,99	
Supplier : Eukanuba													
1	19014006687	7,5	15,51503	12937,3	4,456218	1,0725	892,5004	0,015037	92125	Rp6.253,92	Rp9.956,98	Rp669,67	Rp230.654,82
2	19014113644	5,75	16,43524	12937,3	7,867589	0,82225	850,7948	0,078078	90250	Rp4.526,22	Rp13.052,07	Rp2.465,29	
3	19014113637	8,75	23,75105	12937,3	6,996756	1,25125	458,7619	0,036561	50625	Rp4.766,16	Rp8.100,63	Rp681,88	
4	19014006632	7,916667	23,47826	12937,3	8,176119	1,132083	458,7619	0,059936	50625	Rp4.362,35	Rp8.644,50	Rp1.023,12	
5	19014140640	3,916667	13,14452	12937,3	4,650039	0,560083	850,7948	0,064582	90250	Rp3.854,92	Rp9.126,30	Rp1.736,72	
6	19014106080	3,75	19,46303	12937,3	3,989106	0,53625	308,6216	0,052099	50875	Rp2.492,67	Rp4.085,06	Rp510,69	
7	19014132645	19,58333	46,97621	12937,3	57,53978	2,800417	784,0658	0,314753	99250	Rp5.393,27	Rp61.582,27	Rp13.022,95	
8	19014006588	3,333333	25,95706	12937,3	1,757271	0,476667	133,458	0,025031	22000	Rp1.661,37	Rp1.906,34	Rp70,72	
9	19014006700	11,5	20,18335	12937,3	10,10345	1,6445	892,5004	0,031157	92125	Rp7.371,37	Rp16.584,25	Rp1.635,45	
10	19014140633	2,5	13,15545	12937,3	2,117003	0,3575	458,7619	0,058112	50625	Rp2.458,54	Rp3.851,46	Rp559,07	
11	19014113620	2,416667	17,65516	12937,3	1,560325	0,345583	216,8693	0,029335	35750	Rp1.770,88	Rp2.184,23	Rp143,55	
12	19014106202	5,333333	14,63958	12937,3	2,81566	0,762667	700,6545	0,020548	55500	Rp4.713,18	Rp6.581,48	Rp415,47	
13	19014114641	3,666667	12,53969	12937,3	3,811435	0,524333	784,0658	0,039042	99250	Rp3.782,93	Rp7.523,88	Rp1.133,04	

Contoh Perhitungan : 8994571004777

B = *reorder point* (unit)

Nk = jumlah unit *lost sales* selama *lead time* (unit/ bulan)

π = biaya stock out (Rp/ unit)

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{29,5}{38,107} * Rp.12.937,297 = Rp.10.015,08$$

$$\begin{aligned} \text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.538,968 * \left(\frac{38,107}{2} + 7,923 - 4,2185 + 0,002832 \right) \\ &= Rp.12.267,51 \end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{29,5}{38,107} * 0,002832 * Rp.116.000 = Rp.254,30$$

➤ Suplier Setrasari

Tabel L9.15
Kenaikan Permintaan 15 % Suplier Setrasari

No	Kode Barang	Nama Barang	Jumlah													R	σ
			Data ke 1	Data ke 2	Data ke 3	Data ke 4	Data ke 5	Data ke 6	Data ke 7	Data ke 8	Data ke 9	Data ke 10	Data ke 11	Data ke 12	Total		
1	7896642900500	MA 13 - DOG FOOD CROC ORIGINAL 25 KG	14	11	13	11	12	11	10	12	10	13	12	11	140	11,667	1,231
2	73893004004	MA 13 - DOG FOOD SUPREME ADULT 18 KG	6	6	6	6	5	5	5	5	5	5	5	5	64	5,333	0,492
3	7896642901439	MA 13 - CICLOS CROISSANCE PUP 15 KG	5	5	5	5	5	5	5	4	5	4	4	5	48	4,750	0,452

Tabel L9.16

Rata – rata Ongkos Pembelian per Minggu Kenaikan Permintaan 15 % Suplier Setrasari

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)	i
Suplier Setrasari					
1	7896642901439	11,667	Rp230.000,00	Rp2.683.333,33	0,001306
2	7896642900500	5,333	Rp235.000,00	Rp1.253.333,33	0,001306
3	73893004004	4,750	Rp174.570,00	Rp829.207,50	0,001306

Contoh perhitungan : 7896642901439

Ongkos Pembelian = R x Harga beli

$$= 11,667 \times \text{Rp. } 230.000,00 = \text{Rp. } 2.683.333,33$$

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i \cdot R_i}} = \sqrt{\frac{2 * \text{Rp.} 25.577,96}{0,1306\% * \text{Rp.} 4.765.874,17}} = 2,8668$$

t = 2,8668, sehingga terdapat dua alternatif besarnya t yaitu t = 2 dan t = 3

Tabel L9.17

Metode P Kenaikan Permintaan 15 % Suplier Setrasari

No	Kode barang	t	H	π	R	σ	L	L+t	F(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : setrasari													
untuk t = 2													
1	7896642901439	2	Rp300,38	Rp95.000	11,667	1,231	0,143	2,143	0,00628	2,499	25,002	1,802	29,505
2	7896642900500	2	Rp306,91	Rp55.000	5,333	0,492	0,143	2,143	0,01104	2,289	11,429	0,721	13,079
3	73893004004	2	Rp227,99	Rp45.430	4,750	0,452	0,143	2,143	0,00994	2,3286	10,179	0,662	11,721
Supplier : setrasari													
untuk t = 3													
1	7896642901439	3	Rp300,38	Rp95. 000	11,667	1,231	0,143	3,143	0,00940	2,3495	36,668	2,182	41,795
2	7896642900500	3	Rp306,91	Rp55.000	5,333	0,492	0,143	3,143	0,01646	2,133	16,763	0,873	18,625
3	73893004004	3	Rp227,99	Rp45.430	4,750	0,452	0,143	3,143	0,01483	2,1746	14,929	0,802	16,673

Tabel L9.18

Ongkos Total Metode P Kenaikan Permintaan 15 % Suplier Setrasari

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E(k)	Nk	O. simpan (Rp/ minggu)	O.stock out (Rp/minggu)	O. pesan	Total
		(minggu)	(Rp/unit/minggu)	(unit)		(unit/minggu)	(Rp/unit)	(unit)						
Supplier : setrasari														
untuk t = 2														
1	7896642901439	2	Rp300,38	29,505	1,668	11,667	Rp95.000	1,802	0,002	0,00363	Rp4.858,15	Rp172,45	Rp12.788,98	Rp21.524,39
2	7896642900500	2	Rp306,91	13,079	0,763	5,333	Rp55.000	0,721	0,004	0,00273	Rp2.144,05	Rp75,10		
3	73893004004	2	Rp227,99	11,721	0,679	4,75	Rp45.430	0,662	0,003	0,00223	Rp1.434,94	Rp50,73		
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp300,38	41,795	1,668	11,667	Rp95.000	2,182	0,003	0,00692	Rp6.798,82	Rp219,10	Rp8.525,99	Rp20.753,60
2	7896642900500	3	Rp306,91	18,625	0,763	5,333	Rp55.000	0,873	0,006	0,00516	Rp3.028,29	Rp94,62		
3	73893004004	3	Rp227,99	16,673	0,679	4,750	Rp45.430	0,802	0,00526	0,00422	Rp2.022,90	Rp63,88		

Contoh perhitungan : 7896642901439 untuk t = 2

E(k) didapat dari tabel normal, E(k) → 0,002

$$N(k) = \sigma_{L+t} \cdot E(k) = 1,802 \times 0,002 = 0,00363$$

$$\text{Ongkos simpan} = H * \left(E - \mu_t - \frac{Rxt}{2} + Nk \right) = Rp.300,38 * \left(29,505 - 1,668 - \frac{11,667 * 2}{2} + 0,00363 \right) = Rp.4.858,15$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} \times Nk = \frac{Rp.95000}{2} \times 0,00363 = Rp.172,45$$

$$\text{Ongkos pesan} = \frac{C}{t} = \frac{Rp.25.577,96}{2} = Rp.12.788,98$$

Harga Beli Naik 5 %

- Suplier HMI & Eukanuba

Tabel L9.19
Data – Data Pengendalian Metode Q Usulan Harga Beli Naik 5 %

No	Kode Barang	R (unit/ minggu)	σ (unit)	C (Rp/pesan)	P (Rp/ unit)	i per minggu(%)	H (Rp/unit/minggu)	L (minggu)	π (Rp/unit)	μ_L (unit)	σ_L (unit)
Supplier : HMI											
1	8994571004777	31,839	2,476	Rp12.937,297	Rp214.200	0,264%	Rp565,92	0,143	Rp105.800,00	4,553	0,936
2	8994571004760	23,749	3,081	Rp12.937,297	Rp226.800	0,264%	Rp599,21	0,143	Rp113.200,00	3,396	1,165
Supplier : Eukanuba											
1	19014006687	5,496	1,909	Rp12.937,297	Rp407.269	0,230%	Rp937,13	0,143	Rp72.731,25	0,786	0,722
2	19014113644	4,164	3,067	Rp12.937,297	Rp388.238	0,230%	Rp893,33	0,143	Rp71.762,50	0,595	1,160
3	19014113637	7,040	2,954	Rp12.937,297	Rp209.344	0,230%	Rp481,70	0,143	Rp40.656,25	1,007	1,117
4	19014006632	5,954	3,169	Rp12.937,297	Rp209.344	0,230%	Rp481,70	0,143	Rp40.656,25	0,851	1,198
5	19014140640	6,776	2,233	Rp12.937,297	Rp388.238	0,230%	Rp893,33	0,143	Rp71.762,50	0,969	0,844
6	19014106080	1,481	1,486	Rp12.937,297	Rp140.831	0,230%	Rp324,05	0,143	Rp44.168,75	0,212	0,562
7	19014132645	3,169	2,265	Rp12.937,297	Rp357.788	0,230%	Rp823,27	0,143	Rp82.212,50	0,453	0,857
8	19014006588	1,625	6,183	Rp12.937,297	Rp60.900	0,230%	Rp140,13	0,143	Rp19.100,00	0,232	2,338
9	19014006700	2,627	1,551	Rp12.937,297	Rp407.269	0,230%	Rp937,13	0,143	Rp72.731,25	0,376	0,587
10	19014140633	0,393	2,008	Rp12.937,297	Rp209.344	0,230%	Rp481,70	0,143	Rp40.656,25	0,056	0,759
11	19014113620	10,093	3,815	Rp12.937,297	Rp98.963	0,230%	Rp227,71	0,143	Rp31.037,50	1,443	1,443
12	19014106202	6,071	1,217	Rp12.937,297	Rp319.725	0,230%	Rp735,69	0,143	Rp40.275,00	0,868	0,460
13	19014114641	3,765	1,235	Rp12.937,297	Rp357.788	0,230%	Rp823,27	0,143	Rp82.212,50	0,538	0,467

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit/ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H= Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp.214.200 = Rp.565,92$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

μ_L = per min taan pada saat lead time (unit) = $R * L = 31,839 * 0,143 = 4,553$

σ_L = s tan dar deviasi pada saat lead time (unit / min gg u) = $\sigma * \sqrt{L} = 2,476 * \sqrt{0,143} = 0,936$

Tabel L9.20

Pengolahan Metode Q Usulan Harga Beli Naik 5 %

No	Kode Barang	Q lama (unit)	F(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	B = $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	38,154	0,00637	2,4909	0,00207	0,001934	38,454	0,301	-	-	-
2	8994571004760	32,023	0,00709	2,4527	0,00232	0,002707	32,400	0,377	-	-	-
Supplier : Eukanuba											
1	19014006687	12,319	0,02807	2,6178	0,0192362	0,013887	12,791	0,472	-	-	-
2	19014113644	10,982	0,03179	3,584	0,0573161	0,066475	12,848	1,866	-	-	-
3	19014113637	19,446	0,03169	3,7860	0,0377564	0,042176	20,695	1,249	-	-	-
4	19014006632	17,884	0,03436	3,796	0,0511343	0,061278	19,530	1,646	-	-	-
5	19014140640	14,010	0,02509	3,1789	0,0194444	0,016419	14,634	0,624	-	-	-
6	19014106080	10,876	0,05111	1,1564	0,0519699	0,029204	11,405	0,529	-	-	-
7	19014132645	9,980	0,03057	2,7090	0,0399494	0,034217	11,012	1,032	-	-	-
8	19014006588	17,319	0,07254	0,00638	0,2315553	0,541405	23,232	5,912	-	-	-
9	19014006700	8,516	0,04010	1,7097	0,031108	0,018245	8,942	0,426	-	-	-
10	19014140633	4,594	0,12167	0,000000000214	0,0555498	0,042181	4,889	0,295	-	-	-
11	19014113620	33,865	0,02403	5,380	0,0346791	0,050030	35,840	1,975	-	-	-
12	19014106202	14,612	0,04212	1,79650	0,0139494	0,006420	14,757	0,145	-	-	-
13	19014114641	10,877	0,02812	1,7101	0,0120422	0,005624	11,070	0,193	-	-	-

Lanjutan Tabel L9.20

Pengolahan Metode Q Usulan Harga Beli Naik 5 %

No	Kode Barang	Q lama (unit)	F(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	B = $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	38,454	0,00642	2,488	0,00208	0,001952	38,457	0,003	OK	6,882	38,457
2	8994571004760	32,400	0,00717	2,4487	0,00235	0,002740	32,405	0,005	OK	6,249	32,405
Supplier : Eukanuba											
1	19014006687	12,791	0,02911	2,5926	0,0199566	0,014407	12,808	0,017	OK	2,658	12,808
2	19014113644	12,848	0,03699	3,3298	0,0660395	0,076592	13,109	0,261	-	-	-
3	19014113637	20,695	0,03366	3,7149	0,0400787	0,044771	20,769	0,074	OK	5,157	20,769
4	19014006632	19,530	0,03741	3,6735	0,0555271	0,066542	19,665	0,135	-	-	-
5	19014140640	14,634	0,02618	3,1456	0,0202977	0,017140	14,660	0,027	OK	3,625	14,660
6	19014106080	11,405	0,05347	1,1170	0,0540297	0,030361	11,425	0,020	OK	0,840	11,425
7	19014132645	11,012	0,03363	2,5919	0,0437048	0,037434	11,104	0,092	OK	2,673	11,104
8	19014006588	23,232	0,09496	0,000532	0,2320206	0,542493	23,242	0,010	OK	0,234	23,242
9	19014006700	8,942	0,04202	1,6750	0,0325325	0,019081	8,961	0,019	OK	1,358	8,961
10	19014140633	4,889	0,12848	0,000000000051	0,0555498	0,042181	4,889	0,000	OK	0,056	4,889
11	19014113620	35,840	0,02539	5,3010	0,0366306	0,052845	35,948	0,108	-	-	-
12	19014106202	14,757	0,04252	1,79320	0,014089	0,006484	14,758	0,001	OK	1,693	14,758
13	19014114641	11,070	0,02860	1,7027	0,012252	0,005722	11,073	0,003	OK	1,334	11,073

Lanjutan Tabel L9.20

Pengolahan Metode Q Usulan Harga Beli Naik 5 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
2	19014113644	13,109	0,03771	3,2978	0,0672345	0,077978	13,144	0,035	OK	4,420	13,144
4	19014006632	19,665	0,03766	3,6639	0,0558874	0,066974	19,676	0,011	OK	5,242	19,676
11	19014113620	35,948	0,02547	5,2960	0,0367577	0,053029	35,955	0,007	OK	9,084	35,955

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$Q_{Lama} = \sqrt{\frac{2RC}{H}} = \sqrt{\frac{2 * 31,839 * Rp.12.937,297}{Rp.565,92}} = 38,154 \text{ unit}$$

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.565,92 * 38,154}{Rp.105.800 * 31,839 + Rp.565,92 * 38,154} = 0,00637$$

Cari k = 2,4909 (tabel normal) → E(k) = 0,00207

$$Nk = \sigma_L * E(k) = 0,936 * 0,00207 = 0,001934$$

$$Q_{baru} = \sqrt{\frac{2R(C + \pi Nk)}{H}} = \sqrt{\frac{2 * 31,839 * (Rp.12.937,297 + Rp.105.800 * 0,001934)}{Rp.565,92}} = 38,454 \text{ unit}$$

$$|Q_{baru} - Q_{lama}| < 0.1 \text{ optimal ??}$$

$$0.1 = \text{toleransi} = \epsilon$$

Jika belum optimal lakukan perhitungan dari awal sampai optimal

Tabel L9.21

Ongkos Total Metode Q Usulan Harga Beli Naik 5 %

No	Kode Barang	R	Q lama	C	B	μ_L	H	Nk	π	O.pesan	O.simpan	O.stockout	O,total
		(unit/ minggu)	(unit)	(Rp/pesan)	(unit)	(Unit)							
Supplier : HMI													
1	8994571004777	31,839	38,457	12937,3	6,882	4,553	Rp565,92	0,001952	Rp105.800,00	Rp10.710,77	Rp12.201,15	Rp170,96	Rp44.211,27
2	8994571004760	23,7485	32,405	12937,3	6,249	3,396036	Rp599,21	0,00274	Rp113.200,00	Rp9.481,30	Rp11.419,77	Rp227,32	
Supplier : Eukanuba													
1	19014006687	5,496417	12,808	12937,3	2,658	0,786	Rp937,13	0,014407	Rp72.731,25	Rp5.551,81	Rp7.768,86	Rp449,65	Rp129.278,88
2	19014113644	4,164083	13,144	12937,3	4,420	0,595464	Rp893,33	0,077978	Rp71.762,50	Rp4.098,45	Rp9.357,67	Rp1.772,75	
3	19014113637	7,040167	20,769	12937,3	5,157	1,006744	Rp481,70	0,044771	Rp40.656,25	Rp4.385,33	Rp7.022,83	Rp616,99	
4	19014006632	5,954	19,676	12937,3	5,242	0,851422	Rp481,70	0,066974	Rp40.656,25	Rp3.914,92	Rp6.886,15	Rp823,97	
5	19014140640	6,77625	14,660	12937,3	3,625	0,969004	Rp893,33	0,01714	Rp71.762,50	Rp5.979,80	Rp8.936,51	Rp568,52	
6	19014106080	1,481333	11,425	12937,3	0,840	0,211831	Rp324,05	0,030361	Rp44.168,75	Rp1.677,35	Rp2.064,46	Rp173,87	
7	19014132645	3,169	11,104	12937,3	2,673	0,453167	Rp823,27	0,037434	Rp82.212,50	Rp3.692,32	Rp6.429,13	Rp878,33	
8	19014006588	1,6245	23,242	12937,3	0,234	0,232304	Rp140,13	0,542493	Rp19.100,00	Rp904,25	Rp1.704,66	Rp724,22	
9	19014006700	2,6265	8,961	12937,3	1,358	0,37559	Rp937,13	0,019081	Rp72.731,25	Rp3.791,99	Rp5.137,29	Rp406,76	
10	19014140633	0,392933	4,889	12937,3	0,056	0,056189	Rp481,70	0,042181	Rp40.656,25	Rp1.039,74	Rp1.197,88	Rp137,82	
11	19014113620	10,09317	35,955	12937,3	9,084	1,443323	Rp227,71	0,053029	Rp31.037,50	Rp3.631,70	Rp5.845,59	Rp462,02	
12	19014106202	6,0705	14,758	12937,3	1,693	0,868082	Rp735,69	0,006484	Rp40.275,00	Rp5.321,40	Rp6.040,71	Rp107,41	
13	19014114641	3,765	11,073	12937,3	1,334	0,538335	Rp823,27	0,005722	Rp82.212,50	Rp4.398,26	Rp5.217,55	Rp159,93	

Contoh Perhitungan : 8994571004777

B = reorder point (unit)

Nk = jumlah unit *lost sales* selama *lead time* (unit/ bulan)

π = biaya *stock out* (Rp/ unit)

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{31,839}{38,457} * Rp.12.937,297 = Rp.10.710,94$$

$$\begin{aligned} \text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.565,92 * \left(\frac{38,457}{2} + 6,882 - 4,553 + 0,001952 \right) \\ &= Rp.12.201,15 \end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{31,839}{38,457} * 0,001952 * Rp.105.800 = Rp.170,96$$

➤ Suplier Setrasari

Tabel L9.22

Rata – rata Ongkos Pembelian per Minggu Harga Beli Naik 5 % Suplier Setrasari

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)	i
Suplier Setrasari					
1	7896642901439	2,953	Rp241.500,00	Rp713.149,50	0,1306%
2	7896642900500	8,408	Rp246.750,00	Rp2.074.674,00	0,1306%
3	73893004004	2,991	Rp183.298,50	Rp548.245,81	0,1306%

Contoh perhitungan : 7896642901439

Ongkos Pembelian = R x Harga beli

$$= 2,953 \times Rp. 241.500,00 = Rp. 713.149,50$$

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i.R_i}} = \sqrt{\frac{2 * Rp.25.577,96}{0,1306\% * Rp.3.336.069,31}} = 3,4265$$

t = 3,4265, sehingga terdapat dua alternatif besarnya t yaitu t = 3 dan t = 4

Tabel L9.23

Metode P Harga Beli Naik 5 % Suplier Setrasari

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : setrasari													
untuk t = 3													
1	7896642901439	3	Rp315,40	Rp83,500	2,953	0,367	0,143	3,143	0,01120	2,2835	9,281	0,651	10,767
2	7896642900500	3	Rp322,26	Rp43,250	8,408	1,122	0,143	3,143	0,02186	2,0168	26,426	1,989	30,438
3	73893004004	3	Rp239,39	Rp36,702	2,991	0,27	0,143	3,143	0,01919	2,0708	9,401	0,479	10,392
Supplier : setrasari													
untuk t = 4													
1	7896642901439	4	Rp315,40	Rp83,500	2,953	0,367	0,143	4,143	0,01488	2,1733	12,234	0,747	13,858
2	7896642900500	4	Rp322,26	Rp43,250	8,408	1,122	0,143	4,143	0,02894	1,8966	34,834	2,284	39,166
3	73893004004	4	Rp239,39	Rp36,702	2,991	0,270	0,143	4,143	0,02543	1,9527	12,392	0,550	13,465

Tabel L9.24

Ongkos Total Metode P Harga Beli Naik 5 % Suplier Setrasari

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E(k)	Nk	O. simpan (Rp/ minggu)	O.stock out (Rp/minggu)	O. pesan	Total
		(minggu)	(Rp/unit/minggu)	(unit)		(unit/minggu)	(Rp/unit)	(unit)						
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp315,40	10,767	0,422	2,953	Rp83,500	0,651	0,004	0,00250	Rp1.866,45	Rp69,72	Rp8.525,99	Rp17.410,78
2	7896642900500	3	Rp322,26	30,438	1,202	8,408	Rp43,250	1,989	0,008	0,01617	Rp5.362,29	Rp233,12		
3	73893004004	3	Rp239,39	10,392	0,428	2,991	Rp36,702	0,479	0,007	0,00336	Rp1.312,11	Rp41,11		
Supplier : setrasari														
untuk t = 4														
1	7896642901439	4	Rp315,40	13,858	0,422	2,953	Rp83,500	0,747	0,005	0,00394	Rp2.376,03	Rp82,35	Rp6.394,49	Rp17.690,56
2	7896642900500	4	Rp322,26	39,166	1,202	8,408	Rp43,250	2,284	0,011	0,02551	Rp6.823,08	Rp275,80		
3	73893004004	4	Rp239,39	13,465	0,428	2,991	Rp36,702	0,550	0,010	0,00530	Rp1.690,18	Rp48,63		

Contoh perhitungan : 7896642901439 untuk t = 3

E(k) didapat dari tabel normal, E(k) \rightarrow 0,004

$$N(k) = \sigma_{L+t} \cdot E(k) = 0,651 \times 0,004 = 0,00250$$

$$\text{Ongkos simpan} = H * \left(E - \mu_l - \frac{Rxt}{2} + Nk \right) = Rp.315,4 * \left(10,767 - 0,422 - \frac{2,953 * 3}{2} + 0,00250 \right) = Rp.1.866,45$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} \times Nk = \frac{Rp.83.500}{3} \times 0,00250 = Rp.69,72$$

$$\text{Ongkos pesan} = \frac{C}{t} = \frac{\text{Rp.25.577,96}}{3} = \text{Rp.8.525,99}$$

Harga Beli Turun 5 %

- Suplier HMI & Eukanuba

Tabel L9.25
Data – Data Pengendalian Metode Q Usulan Harga Beli Turun 5 %

No	Kode Barang	R (unit/ minggu)	σ (unit)	C (Rp/pesan)	P (Rp/ unit)	i per minggu(%)	H (Rp/unit/ minggu)	L (minggu)	π (Rp/unit)	μ_L (unit)	σ_L (unit)
Supplier : HMI											
1	8994571004777	31,839	2,476	Rp12.937,297	Rp193.800	0,264%	Rp512,02	0,143	Rp126.200,00	4,553	0,936
2	8994571004760	23,749	3,081	Rp12.937,297	Rp205.200	0,264%	Rp542,14	0,143	Rp134.800,00	3,396	1,165
Supplier : Eukanuba											
1	19014006687	5,496	1,909	Rp12.937,297	Rp368.481	0,230%	Rp847,88	0,143	Rp111.518,75	0,786	0,722
2	19014113644	4,164	3,067	Rp12.937,297	Rp351.263	0,230%	Rp808,26	0,143	Rp108.737,50	0,595	1,160
3	19014113637	7,040	2,954	Rp12.937,297	Rp189.406	0,230%	Rp435,82	0,143	Rp60.593,75	1,007	1,117
4	19014006632	5,954	3,169	Rp12.937,297	Rp189.406	0,230%	Rp435,82	0,143	Rp60.593,75	0,851	1,198
5	19014140640	6,776	2,233	Rp12.937,297	Rp351.263	0,230%	Rp808,26	0,143	Rp108.737,50	0,969	0,844
6	19014106080	1,481	1,486	Rp12.937,297	Rp127.419	0,230%	Rp293,19	0,143	Rp57.581,25	0,212	0,562
7	19014132645	3,169	2,265	Rp12.937,297	Rp323.713	0,230%	Rp744,86	0,143	Rp116.287,50	0,453	0,857
8	19014006588	1,625	6,183	Rp12.937,297	Rp55.100	0,230%	Rp126,79	0,143	Rp24.900,00	0,232	2,338
9	19014006700	2,627	1,551	Rp12.937,297	Rp368.481	0,230%	Rp847,88	0,143	Rp111.518,75	0,376	0,587
10	19014140633	0,393	2,008	Rp12.937,297	Rp189.406	0,230%	Rp435,82	0,143	Rp60.593,75	0,056	0,759
11	19014113620	10,093	3,815	Rp12.937,297	Rp89.538	0,230%	Rp206,03	0,143	Rp40.462,50	1,443	1,443
12	19014106202	6,071	1,217	Rp12.937,297	Rp289.275	0,230%	Rp665,62	0,143	Rp70.725,00	0,868	0,460
13	19014114641	3,765	1,235	Rp12.937,297	Rp323.713	0,230%	Rp744,86	0,143	Rp116.287,50	0,538	0,467

Contoh Perhitungan : 8994571004777

R = Rata – rata permintaan hasil peramalan/ minggu (Unit/ minggu)

σ = Standar deviasi permintaan hasil peramalan (Unit/ minggu)

C = Ongkos pesan

P = Harga beli (Rp/ unit)

i = Persentase biaya simpan per minggu (%/ minggu)

H = Ongkos Simpan (Rp/ unit/ minggu) = $i.P = 0.2642\% \times Rp.193.800 = Rp.512,02$

L = Lead time = $1 \text{ hari} / 7 \text{ hari} = 0,143$ minggu

π = Biaya *stock out* (Rp/ unit)

μ_L = per min taan pada saat lead time (unit) = $R * L = 31,839 * 0,143 = 4,553$

σ_L = s tan dar deviasi pada saat lead time (unit / min ggu) = $\sigma * \sqrt{L} = 2,476 * \sqrt{0,143} = 0,936$

Tabel L9.26

Pengolahan Metode Q Usulan Harga Beli Turun 5 %

No	Kode Barang	Q lama (unit)	F(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	B = $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : HMI											
1	8994571004777	40,112	0,00509	2,57	0,00161	0,001511	40,406	0,295	-	-	-
2	8994571004760	33,667	0,00567	2,532	0,00182	0,002118	34,036	0,370	-	-	-
Supplier : Eukanuba											
1	19014006687	12,951	0,01760	2,9390	0,0120311	0,008685	13,427	0,476	-	-	-
2	19014113644	11,546	0,02019	4,3679	0,0373157	0,043279	13,483	1,937	-	-	-
3	19014113637	20,444	0,02046	4,3040	0,0244623	0,027326	21,713	1,269	-	-	-
4	19014006632	18,801	0,02221	4,4319	0,0334413	0,040075	20,490	1,689	-	-	-
5	19014140640	14,728	0,01590	3,5349	0,012272	0,010363	15,356	0,628	-	-	-
6	19014106080	11,434	0,03781	1,4300	0,0399164	0,022430	11,991	0,557	-	-	-
7	19014132645	10,492	0,02077	3,1930	0,0276914	0,023718	11,556	1,064	-	-	-
8	19014006588	18,208	0,05399	0,04770	0,2290606	0,535572	25,948	7,740	-	-	-
9	19014006700	8,953	0,02526	2,0576	0,0199492	0,011701	9,393	0,441	-	-	-
10	19014140633	4,830	0,08123	0,0000008900	0,0555497	0,042181	5,286	0,456	-	-	-
11	19014113620	35,603	0,01764	5,826	0,0254587	0,036728	37,593	1,989	-	-	-
12	19014106202	15,362	0,02326	1,99920	0,0075	0,003452	15,506	0,144	-	-	-
13	19014114641	11,436	0,01909	1,8773	0,0081437	0,003803	11,629	0,194	-	-	-

Lanjutan Tabel L9.26

Pengolahan Metode Q Usulan Harga Beli Turun 5 %

No	Kode Barang	Q lama	F(k)	k	E (k)	Nk	Q baru	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	$B = \mu_L + k\sigma_L$	Q
		(unit)					(unit)			(unit)	(unit)
Supplier : HMI											
1	8994571004777	40,406	0,00512	2,5676	0,00163	0,001522	40,408	0,002	OK	6,957	40,408
2	8994571004760	34,036	0,00573	2,5284	0,00184	0,002142	34,040	0,004	OK	6,342	34,040
Supplier : Eukanuba											
1	19014006687	13,427	0,01823	2,9150	0,012461	0,008996	13,444	0,017	OK	2,890	13,444
2	19014113644	13,483	0,02350	4,102	0,0431121	0,050001	13,760	0,276	-	-	-
3	19014113637	21,713	0,02170	4,2346	0,0259248	0,028960	21,787	0,074	OK	5,737	21,787
4	19014006632	20,490	0,02415	4,3090	0,0362879	0,043486	20,627	0,137	-	-	-
5	19014140640	15,356	0,01657	3,5028	0,012793	0,010803	15,383	0,026	OK	3,927	15,383
6	19014106080	11,991	0,03958	1,3874	0,0415644	0,023357	12,013	0,022	OK	0,991	12,013
7	19014132645	11,556	0,02283	3,0730	0,030305	0,025957	11,652	0,095	OK	3,085	11,652
8	19014006588	25,948	0,07521	0,00476	0,2316749	0,541684	26,023	0,075	OK	0,243	26,023
9	19014006700	9,393	0,02647	2,0220	0,0208697	0,012240	9,413	0,020	OK	1,562	9,413
10	19014140633	5,286	0,08822	0,0000002170	0,0555498	0,042181	5,286	0,000	OK	0,056	5,286
11	19014113620	37,593	0,01861	5,749	0,0268541	0,038741	37,699	0,106	-	-	-
12	19014106202	15,506	0,02348	1,99600	0,0075748	0,003486	15,507	0,001	OK	1,787	15,507
13	19014114641	11,629	0,01940	1,8704	0,0082765	0,003865	11,633	0,003	OK	1,412	11,633

Lanjutan Tabel L9.26

Pengolahan Metode Q Usulan Harga Beli Turun 5 %

No	Kode Barang	Q lama (unit)	F'(k)	k	E (k)	Nk	Q baru (unit)	$ Q_{baru} - Q_{lama} $	$ Q_{baru} - Q_{lama} < 0,1??$	B = $\mu_L + k\sigma_L$ (unit)	Q (unit)
Supplier : Eukanuba											
2	19014113644	13,760	0,02397	4,068	0,0439191	0,050937	13,798	0,038	OK	5,314	13,798
4	19014006632	20,627	0,02431	4,2990	0,0365302	0,043777	20,639	0,012	OK	6,003	20,639
11	19014113620	37,699	0,01866	5,745	0,0269286	0,038849	37,704	0,006	OK	9,731	37,704

Contoh Perhitungan : 8994571004777

Q lama = Jumlah optimal pemesanan saat ini

$$Q_{Lama} = \sqrt{\frac{2RC}{H}} = \sqrt{\frac{2 * 31,839 * Rp.12.937,297}{Rp.512,02}} = 40,112 \text{ unit}$$

$$F'(k) = \frac{HQ}{(\pi R + HQ)} = \frac{Rp.512,02 * 40,112}{Rp.126.200 * 31,839 + Rp.512,2 * 40,112} = 0,00509$$

Cari k = 2,57 (tabel normal) → E(k) = 0,00161

$$Nk = \sigma_L * E(k) = 0,936 * 0,00161 = 0,001511$$

$$Q_{baru} = \sqrt{\frac{2R(C + \pi Nk)}{H}} = \sqrt{\frac{2 * 31,839 * (Rp.12.937,297 + Rp.126.200 * 0,001511)}{Rp.512,20}} = 40,406 \text{ unit}$$

$$|Q_{baru} - Q_{lama}| < 0.1 \text{ optimal ??}$$

$$0.1 = \text{toleransi} = \varepsilon$$

Jika belum optimal lakukan perhitungan dari awal sampai optimal

Tabel L9.27

Ongkos Total Metode Q Usulan Harga Beli Turun 5 %

No	Kode Barang	R (unit/ minggu)	Q lama (unit)	C (Rp/pesan)	B (unit)	μ_L (Unit)	H	Nk	π	O.pesan	O.simpan	O.stockout	O.total
Supplier : HMI													
1	8994571004777	31,839	40,408	Rp12.937,30	6,957	4,552906	Rp512,02	0,001522	Rp126.200,00	Rp10.193,55	Rp11.576,64	Rp151,38	Rp41.974,34
2	8994571004760	23,7485	34,040	Rp12.937,30	6,342	3,396036	542,1384	0,002142	Rp134.800,00	Rp9.025,81	Rp10.825,49	Rp201,48	
Supplier : Eukanuba													
1	19014006687	5,496417	13,444	Rp12.937,30	2,890	0,785988	Rp847,88	0,008996	Rp111.518,75	Rp5.289,27	Rp7.491,24	Rp410,14	Rp124.700,83
2	19014113644	4,164083	13,798	Rp12.937,30	5,314	0,595464	808,255	0,050937	Rp108.737,50	Rp3.904,43	Rp9.430,57	Rp1.671,59	
3	19014113637	7,040167	21,787	Rp12.937,30	5,737	1,006744	435,8238	0,02896	Rp60.593,75	Rp4.180,56	Rp6.821,80	Rp567,04	
4	19014006632	5,954	20,639	Rp12.937,30	6,003	0,851422	435,8238	0,043777	Rp60.593,75	Rp3.732,22	Rp6.761,80	Rp765,23	
5	19014140640	6,77625	15,383	Rp12.937,30	3,927	0,969004	808,255	0,010803	Rp108.737,50	Rp5.699,07	Rp8.615,93	Rp517,45	
6	19014106080	1,481333	12,013	Rp12.937,30	0,991	0,211831	293,1905	0,023357	Rp57.581,25	Rp1.595,26	Rp1.996,53	Rp165,84	
7	19014132645	3,169	11,652	Rp12.937,30	3,085	0,453167	744,8625	0,025957	Rp116.287,50	Rp3.518,59	Rp6.319,40	Rp820,94	
8	19014006588	1,6245	26,023	Rp12.937,30	0,243	0,232304	126,7851	0,541684	Rp24.900,00	Rp807,63	Rp1.719,73	Rp842,01	
9	19014006700	2,6265	9,413	Rp12.937,30	1,562	0,37559	847,8754	0,01224	Rp111.518,75	Rp3.609,77	Rp5.006,55	Rp380,87	
10	19014140633	0,392933	5,286	Rp12.937,30	0,056	0,056189	435,8238	0,042181	Rp60.593,75	Rp961,77	Rp1.170,17	Rp190,01	
11	19014113620	10,09317	37,704	Rp12.937,30	9,731	1,443323	206,0258	0,038849	Rp40.462,50	Rp3.463,23	Rp5.599,58	Rp420,79	
12	19014106202	6,0705	15,507	Rp12.937,30	1,787	0,868082	665,6218	0,003486	Rp70.725,00	Rp5.064,46	Rp5.774,73	Rp96,51	
13	19014114641	3,764583	11,633	Rp12.937,30	1,412	0,538335	744,8625	0,003865	Rp116.287,50	Rp4.186,85	Rp4.985,84	Rp145,46	

Contoh Perhitungan : 8994571004777

$B = \text{reorder point (unit)}$

$Nk = \text{jumlah unit lost sales selama lead time (unit/ bulan)}$

$\pi = \text{biaya stock out (Rp/ unit)}$

$$\text{Ongkos pesan} = \frac{R}{Q} * C = \frac{31,839}{40,408} * Rp.12.937,297 = Rp.10.193,55$$

$$\begin{aligned} \text{Ongkos simpan} &= H * \left(\frac{Q}{2} + B - \mu_L + Nk \right) \\ &= Rp.512,02 * \left(\frac{40,408}{2} + 6,957 - 4,553 + 0,001522 \right) \\ &= Rp.11.576,64 \end{aligned}$$

$$\text{Ongkos Stock out} = \frac{R}{Q} * Nk * \pi = \frac{31,839}{40,408} * 0,001522 * Rp.126.200 = Rp.151,38$$

➤ Suplier Setrasari

Tabel L9.28

Rata – rata Ongkos Pembelian per Minggu Harga Beli Turun 5 % Suplier Setrasari

No	kode barang	R (unit/ minggu)	Harga beli (Rp/ unit)	Ongkos pembelian (Rp/ minggu)	i
Suplier Setrasari					
1	7896642901439	2,953	Rp218.500,00	Rp645.230,50	0,1306%
2	7896642900500	8,408	Rp223.250,00	Rp1.877.086,00	0,1306%
3	73893004004	2,991	Rp165.841,50	Rp496.031,93	0,1306%

Contoh perhitungan : 7896642901439

Ongkos Pembelian = R x Harga beli

$$= 2,953 \times Rp. 218.500,00 = Rp. 645.230,50$$

Untuk supplier Setrasari :

$$t = \sqrt{\frac{2C}{F \sum_{i=1}^n P_i.R_i}} = \sqrt{\frac{2 * Rp.25.577,96}{0,1306\% * Rp.3.018.348,43}} = 3,6023$$

$t = 3,2185$, sehingga terdapat dua alternatif besarnya t yaitu $t = 3$ dan $t = 4$

Tabel L9.29

Metode P Harga Beli Turun 5 % Suplier Setrasari

No	Kode barang	t	H	π	R	σ	L	L+t	F'(k)	k	μ_{L+t}	σ_{L+t}	E
		(minggu)	(Rp/unit/minggu)	(Rp/unit)	(unit/minggu)	(unit)	(minggu)	(minggu)			(unit)	(unit)	(unit)
Supplier : setrasari													
untuk t = 3													
1	7896642901439	3	Rp285,36	Rp106,500	2,953	0,367	0,143	3,143	0,00797	2,4103	9,281	0,651	10,850
2	7896642900500	3	Rp291,56	Rp66,750	8,408	1,122	0,143	3,143	0,01293	2,2283	26,426	1,989	30,859
3	73893004004	3	Rp216,59	Rp54,159	2,991	0,27	0,143	3,143	0,01186	2,2616	9,401	0,479	10,483
Supplier : setrasari													
untuk t = 4													
1	7896642901439	4	Rp285,36	Rp106,500	2,953	0,367	0,143	4,143	0,01060	2,3044	12,234	0,747	13,956
2	7896642900500	4	Rp291,56	Rp66,750	8,408	1,122	0,143	4,143	0,01717	2,116	34,834	2,284	39,667
3	73893004004	4	Rp216,59	Rp54,159	2,991	0,270	0,143	4,143	0,01574	2,1509	12,392	0,550	13,574

Tabel L9.30

Ongkos Total Metode P Harga Beli Turun 5 % Suplier Setrasari

No	Kode barang	t	H	E	μ_L	R	π	σ_{L+t}	E(k)	Nk	O. simpan (Rp/ minggu)	O.stock out (Rp/minggu)	O.pesan	Total
		(minggu)	(Rp/unit/minggu)	(unit)		(unit/minggu)	(Rp/unit)	(unit)						
Supplier : setrasari														
untuk t = 3														
1	7896642901439	3	Rp285,36	10,850	0,422	2,953	Rp106.500	0,651	0,003	0,00172	Rp1.712,01	Rp61,04	Rp8.525,99	Rp16.713,14
2	7896642900500	3	Rp291,56	30,859	1,202	8,408	Rp66.750	1,989	0,005	0,00898	Rp4.972,16	Rp199,87		
3	73893004004	3	Rp216,59	10,483	0,428	2,991	Rp54.159	0,479	0,004	0,00196	Rp1.206,62	Rp35,45		
Supplier : setrasari														
untuk t = 4														
1	7896642901439	4	Rp285,36	13,956	0,422	2,953	Rp106.500	0,747	0,004	0,00271	Rp2.177,33	Rp72,03	Rp6.394,49	Rp16.790,31
2	7896642900500	4	Rp291,56	39,667	1,202	8,408	Rp66.750	2,284	0,006	0,01416	Rp6.316,04	Rp236,24		
3	73893004004	4	Rp216,59	13,574	0,428	2,991	Rp54.159	0,550	0,006	0,00309	Rp1.552,33	Rp41,85		

Contoh perhitungan : 7896642901439 untuk $t = 3$

$E(k)$ didapat dari tabel normal, $E(k) \rightarrow 0,003$

$$N(k) = \sigma_{L+t} \cdot E(k) = 1,480 \times 0,003 = 0,00469$$

Ongkos simpan =

$$H * \left(E - \mu_t - \frac{Rxt}{2} + Nk \right) = Rp.300,38 * \left(32,288 - 1,311 - \frac{9,167 * 3}{2} + 0,00469 \right) = Rp.5.176,13$$

$$\text{Ongkos Stockout} = \frac{\pi}{t} \times Nk = \frac{Rp.95000}{3} \times 0,00469 = Rp.148,64$$

$$\text{Ongkos pesan} = \frac{C}{t} = \frac{Rp.25.577,96}{3} = Rp.8.525,99$$