

Lampiran 1

KUESIONER KONFLIK KERJA

Nama :

Kelas :

Jenis kelamin :

Umur :

Di bawah ini terdapat beberapa pernyataan dengan berbagai kemungkinan jawaban. Saudara diminta untuk memilih salah satu dari pilihan jawaban yang tersedia sesuai dengan keadaan diri Saudara yang sebenarnya.

PETUNJUK PENGISIAN

1. Sebelum anda menjawab daftar pertanyaan yang telah disiapkan, terlebih dahulu isi daftar identitas yang telah disediakan.
2. Bacalah dengan baik setiap pernyataan, kemudian beri jawaban pada pernyataan dengan memberi tanda check list (\surd) pada salah satu pilihan yang sesuai dengan jawaban Saudara.

3. Alternatif jawaban

SS = Sangat Setuju

S = Setuju

RR = Ragu-Ragu

TS = Tidak Setuju

ST = Sangat Tidak Setuju

Konflik Kerja

No	Pernyataan	Alternatif Jawaban				
		STS	TS	RR	S	SS
	Perbedaan dalam memahami tujuan.					
1	Saya menerima perbedaan pendapat demi mencapai tujuan.					
2	Dalam melaksanakan pekerjaan terkadang saya berselisih pendapat dengan rekan kerja.					
3	Saya merasakan antara saya dan rekan kerja mempunyai visi yang berbeda dalam tugas atau pekerjaan.					
4	Saya merasakan antara saya dan rekan kerja mempunyai berbagai pendapat yang berbeda mengenai organisasi atau pengelolaan dari pekerjaan.					
	Pelaksanaan tugas					
5	Tidak semua karyawan menerima dengan baik metode kerja saya untuk menyelesaikan pekerjaannya.					
6	Saya sering ditegur oleh atasan saat hasil kerja tidak sesuai atau bila terjadi keterlambatan dalam pelaksanaan.					
7	Saya merasakan antara saya dan rekan kerja mempunyai perbedaan dalam menentukan penyebab atas permasalahan yang berkaitan dengan pekerjaan.					
	Komunikasi					
8	Saya merasakan komunikasi yang terjalin antara pegawai terjalin dengan baik					
9	Sikap dan bicara saya terkadang membuat karyawan lain tersinggung					
10	Saya merasakan terjadinya percekocokan atau perdebatan (kontroversi) antara saya dan rekan kerja					

Konflik Peran Ganda

No	Pernyataan	Alternatif Jawaban				
		STS	TS	RR	S	SS
	Berdasarkan Tekanan					
1	Tekanan pekerjaan di kantor membuat saya kesulitan untuk membagi waktu dengan keluarga saya.					
2	Saya tidak dapat menjalani peran saya sebagai ibu rumah tangga jika tetap bekerja di kantor.					
3	Tuntutan keterlibatan sebagai istri membuat pekerjaan saya di kantor menjadi terganggu.					
	Berdasarkan Waktu					
4	Banyaknya tuntutan tugas di kantor membuat saya sulit untuk menghabiskan waktu bersama keluarga.					
5	Hubungan dengan rekan kerja sangat baik sehingga membuat saya nyaman menjalani profesi saya.					
6	Keluarga saya sangat mendukung saya dalam menjalani profesi sebagai karyawan di kantor.					
	Berdasarkan Prilaku					
7	Peristiwa yang kurang menyenangkan di kantor terkadang membuat saya bersikap kurang menyenangkan di rumah.					
8	Peristiwa yang kurang menyenangkan di rumah membuat saya tidak bisa bekerja dengan baik.					
9	Tuntutan sebagai orang tua membuat pekerjaan saya di kantor menjadi terganggu					
10	Suami saya selalu meminta saya agar saya berhenti bekerja dan menjalani profesi sebagai ibu rumah tangga yang baik					

Produtivitas Kerja

No	Pernyataan	Alternatif Jawaban				
		STS	TS	RR	S	SS
	Kualitas Kerja					
1	Saya merasa bangga dengan pekerjaan yang dibebankan kepada saya.					
2	Saya menguasai keterampilan yang sangat baik dalam melaksanakan pekerjaan-pekerjaan saya.					
3	Mutu dari hasil kerja saya selalu memenuhi standar yang telah ditetapkan.					
	Kuantitas Kerja					
4	Saya selalu berusaha untuk meningkatkan kualitas kerja saya					
5	Saya tidak pernah mengeluh dan merasa berat terhadap beban yang menjadi tanggung-jawab saya.					
6	Terkadang saya merasa jenuh terhadap pekerjaan yang saya tangani.					
7	Saya selalu berusaha memperbaiki terhadap kesalahan yang pernah saya lakukan dalam melaksanakan pekerjaan.					
	Ketepatan Waktu					
8	Saya sangat menjaga ketepatan waktu dan kesempurnaan hasil pekerjaan.					
9	Saya sering terlambat masuk kerja					
10	Terkadang pekerja yang di berikan terlalu banyak sehingga saya tidak dapat menyelesaikannya tepat waktu					

Lampiran 2

Tabulasi Data Variabel Konflik Kerja (X₁)

RES	No Item Pernyataan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	5	4	3	4	4	4	4	4	2	3	37
2	5	3	4	3	3	3	3	3	3	3	33
3	5	4	4	5	3	5	4	5	3	3	41
4	4	5	5	5	4	5	5	4	4	4	45
5	5	5	4	3	3	3	5	3	5	2	38
6	5	3	3	5	4	5	3	4	4	2	38
7	4	4	4	3	3	3	4	3	5	3	36
8	3	3	3	3	3	1	2	1	2	1	22
9	3	4	4	3	3	3	4	3	4	3	34
10	5	4	3	5	3	5	4	3	4	2	38
11	4	3	3	3	4	3	3	4	3	3	33
12	4	3	3	4	4	4	3	4	3	3	35
13	3	5	4	3	3	3	5	2	3	4	35
14	3	3	2	3	3	3	3	3	3	3	29
15	4	4	5	4	3	5	4	4	3	4	40
16	4	4	5	5	5	5	4	5	4	4	45
17	4	3	4	3	3	3	3	1	3	4	31
18	3	4	3	2	2	1	4	1	3	1	24
19	4	3	5	5	3	3	3	3	4	3	36
20	5	3	4	5	4	5	3	5	4	4	42
21	5	5	4	3	4	5	5	5	4	4	44
22	5	4	4	3	5	5	4	5	5	4	44
23	5	5	5	4	5	5	5	5	5	5	49
24	4	3	4	3	3	3	3	3	3	3	32
25	4	3	5	5	3	5	3	4	3	3	38
26	4	4	3	3	5	5	4	3	4	5	40
27	4	3	5	4	3	5	3	5	3	4	39
28	4	4	3	5	5	5	4	4	4	4	42
29	5	3	4	3	3	3	3	4	3	3	34
30	4	3	5	4	4	4	3	4	4	4	39
31	4	4	4	4	4	4	4	3	3	2	36
32	4	3	5	4	3	4	3	5	3	4	38
33	4	3	4	3	2	3	3	3	4	2	31
34	3	3	3	3	3	3	3	3	3	3	30
35	4	3	3	3	3	3	3	3	2	4	31
36	4	3	4	3	5	3	3	5	3	1	34
$\sum X$	149	130	140	133	127	137	129	129	125	114	
$\sum Y$											1313
$\sum X^2$	633	488	568	519	473	567	483	509	457	398	
$\sum Y^2$											49055
$\sum X*Y$	5516	4818	5193	4958	4741	5202	4796	4883	4657	4291	

Tabulasi Data Variabel Konflik Peran Ganda (X₂)

RES	No Item Pernyataan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	5	4	4	3	3	3	3	3	3	3	34
2	5	4	4	5	4	5	4	5	4	4	44
3	5	5	5	5	5	5	5	5	5	5	50
4	3	5	4	3	5	3	5	3	5	5	41
5	5	3	3	5	3	5	3	5	3	3	38
6	3	4	4	3	4	3	4	3	4	4	36
7	4	3	3	3	4	4	3	3	4	4	35
8	3	3	4	3	4	3	4	3	4	4	35
9	5	4	3	5	4	5	4	5	4	4	43
10	3	3	3	3	3	3	3	3	3	3	30
11	4	3	3	4	3	4	3	4	3	3	34
12	3	5	4	3	5	3	5	3	5	5	41
13	3	4	3	3	3	3	3	3	3	3	31
14	5	4	5	4	4	5	4	5	4	4	44
15	5	4	5	5	4	5	4	5	4	4	45
16	3	3	4	3	3	3	3	3	3	3	31
17	3	4	3	2	4	3	4	3	4	4	34
18	5	3	5	3	3	3	3	5	3	3	36
19	5	3	4	5	3	5	3	5	5	3	41
20	5	5	5	3	5	5	5	5	5	5	48
21	4	4	4	3	4	4	4	5	5	5	42
22	3	5	5	4	5	3	5	5	5	5	45
23	4	3	4	3	3	3	3	3	3	5	34
24	5	3	5	5	3	5	3	5	5	4	43
25	5	4	3	3	4	5	4	4	4	4	40
26	4	4	5	4	3	3	3	5	5	3	39
27	5	4	5	5	4	5	4	5	5	5	47
28	3	3	4	3	3	3	3	3	3	3	31
29	4	3	5	4	3	4	3	4	4	5	39
30	4	4	4	4	4	4	4	4	4	5	41
31	4	3	5	4	3	4	3	4	4	3	37
32	3	3	4	3	3	3	3	3	3	3	31
33	3	3	3	3	3	3	3	3	3	3	30
34	3	3	3	3	3	3	3	3	3	3	30
35	3	3	4	3	3	3	3	3	3	5	33
36	3	3	3	3	3	3	3	3	3	3	30
Σx	142	131	144	130	130	136	129	141	140	140	
Σy											1363
Σx²	588	495	598	496	488	542	481	583	568	570	
Σy²											52775
Σx*y	5496	5059	5550	5036	5025	5283	4990	5490	5436	5410	

Tabulasi Data Variabel Produktivitas Kerja (Y)

Res	No Item Pernyataan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	5	5	4	5	5	3	3	4	3	5	42
2	3	5	3	5	5	5	3	5	3	5	42
3	5	5	4	5	3	5	5	5	5	3	45
4	4	5	4	5	3	4	4	5	4	3	41
5	5	5	5	5	5	3	3	4	3	5	43
6	5	4	5	4	3	5	5	4	5	3	43
7	4	3	3	3	5	2	4	4	4	5	37
8	3	3	3	3	3	3	3	4	3	3	31
9	4	4	3	4	4	4	4	4	4	4	39
10	4	5	5	5	4	4	4	4	4	4	43
11	3	4	4	4	3	5	4	3	4	3	37
12	4	4	5	4	3	4	4	4	4	4	40
13	3	4	5	4	3	3	3	5	3	3	36
14	3	3	3	3	3	3	3	3	3	3	30
15	4	4	5	4	5	4	4	4	4	5	43
16	4	4	4	4	3	5	5	4	5	3	41
17	3	3	3	2	3	4	4	3	3	3	31
18	4	4	3	4	4	4	4	3	3	4	37
19	3	5	4	5	4	4	3	4	3	4	39
20	5	5	5	5	5	4	4	4	4	5	46
21	4	5	5	5	5	4	4	5	4	5	46
22	5	5	5	5	5	5	5	4	5	5	49
23	5	5	5	5	5	5	5	5	5	5	50
24	3	4	4	4	4	4	3	3	3	4	36
25	3	4	4	4	4	4	3	3	3	4	36
26	5	4	4	4	3	4	4	4	4	3	39
27	4	5	5	5	5	5	4	4	4	5	46
28	4	5	5	5	3	5	4	4	4	3	42
29	3	3	3	3	5	3	3	5	3	5	36
30	4	4	4	4	5	3	4	4	4	5	41
31	4	4	3	4	3	3	3	3	3	3	33
32	4	3	3	3	3	3	3	3	3	3	31
33	4	4	3	4	3	4	4	4	4	3	37
34	3	3	3	3	3	3	3	3	3	3	30
35	4	4	4	4	5	3	3	3	3	5	38
36	3	5	5	5	3	4	3	5	3	3	39
$\sum X$	140	151	145	150	140	140	134	142	132	141	
$\sum Y$											1415
$\sum X^2$	564	653	609	648	574	568	516	578	502	581	
$\sum Y^2$											56565
$\sum X*Y$	5594	6047	5812	6016	5593	5590	5346	5656	5278	5633	

Tabulasi Variabel X1, X2 dan Y

RES	X1	X2	Y	X1 ²	X2 ²	Y ²	X1*X2	X1*Y	X2*Y
1	37	34	42	1369	1156	1764	1258	1554	1428
2	33	44	42	1089	1936	1764	1452	1386	1848
3	41	50	45	1681	2500	2025	2050	1845	2250
4	45	41	41	2025	1681	1681	1845	1845	1681
5	38	38	43	1444	1444	1849	1444	1634	1634
6	38	36	43	1444	1296	1849	1368	1634	1548
7	36	35	37	1296	1225	1369	1260	1332	1295
8	22	35	31	484	1225	961	770	682	1085
9	34	43	39	1156	1849	1521	1462	1326	1677
10	38	30	43	1444	900	1849	1140	1634	1290
11	33	34	37	1089	1156	1369	1122	1221	1258
12	35	41	40	1225	1681	1600	1435	1400	1640
13	35	31	36	1225	961	1296	1085	1260	1116
14	29	44	30	841	1936	900	1276	870	1320
15	40	45	43	1600	2025	1849	1800	1720	1935
16	45	31	41	2025	961	1681	1395	1845	1271
17	31	34	31	961	1156	961	1054	961	1054
18	24	36	37	576	1296	1369	864	888	1332
19	36	41	39	1296	1681	1521	1476	1404	1599
20	42	48	46	1764	2304	2116	2016	1932	2208
21	44	42	46	1936	1764	2116	1848	2024	1932
22	44	45	49	1936	2025	2401	1980	2156	2205
23	49	34	50	2401	1156	2500	1666	2450	1700
24	32	43	36	1024	1849	1296	1376	1152	1548
25	38	40	36	1444	1600	1296	1520	1368	1440
26	40	39	39	1600	1521	1521	1560	1560	1521
27	39	47	46	1521	2209	2116	1833	1794	2162
28	42	31	42	1764	961	1764	1302	1764	1302
29	34	39	36	1156	1521	1296	1326	1224	1404
30	39	41	41	1521	1681	1681	1599	1599	1681
31	36	37	33	1296	1369	1089	1332	1188	1221
32	38	31	31	1444	961	961	1178	1178	961
33	31	30	37	961	900	1369	930	1147	1110
34	30	30	30	900	900	900	900	900	900
35	31	33	38	961	1089	1444	1023	1178	1254
36	34	30	39	1156	900	1521	1020	1326	1170
	$\Sigma X1$ = 1313	$\Sigma X2$ = 1363	ΣY = 1415	$\Sigma X1^2$ = 49055	$\Sigma X2^2$ = 52775	ΣY^2 = 56565	$\Sigma X1*X2$ = 49965	$\Sigma X1*Y$ = 52381	$\Sigma X2*Y$ = 53980

Lampiran 3

Hasil Uji Validitas Manual Variabel X1

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{36(5516) - (149)(1313)}{\sqrt{[36(633) - (149)^2][36(49055) - (1313)^2]}}$$

$$r_{1Y} = \frac{198576 - 195637}{\sqrt{(227888 - 22201)(1765980 - 1723969)}}$$

$$r_{1Y} = \frac{2939}{\sqrt{587 \cdot 42011}}$$

$$r_{1Y} = \frac{2939}{\sqrt{24660457}}$$

$$r_{1Y} = \frac{2939}{4965,92962093}$$

$$r_{1Y} = \mathbf{0,592 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{36(4818) - (130)(1313)}{\sqrt{[36(488) - (130)^2][36(49055) - (1313)^2]}}$$

$$r_{2Y} = \frac{173448 - 170690}{\sqrt{(17568 - 16900)(1765980 - 1723969)}}$$

$$r_{2Y} = \frac{2758}{\sqrt{668 \cdot 42011}}$$

$$r_{2Y} = \frac{2758}{\sqrt{28063348}}$$

$$r_{2Y} = \frac{2758}{5297,48506369}$$

$$r_{2Y} = \mathbf{0,521 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{3Y} = \frac{36(5193) - (140)(1313)}{\sqrt{[36(568) - (140)^2][36(49055) - (1313)^2]}}$$

$$r_{3Y} = \frac{186948 - 183820}{\sqrt{(20448 - 19600)(1765980 - 1723969)}}$$

$$r_{3Y} = \frac{3128}{\sqrt{848 \cdot 42011}}$$

$$r_{3Y} = \frac{3128}{\sqrt{35625328}}$$

$$r_{3Y} = \frac{3128}{5968,69566991}$$

$$r_{3Y} = \mathbf{0,524 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{36(4958) - (133)(1313)}{\sqrt{[36(519) - (133)^2][36(49055) - (1313)^2]}}$$

$$r_{4Y} = \frac{178488 - 174629}{\sqrt{(18684 - 17689)(1765980 - 1723969)}}$$

$$r_{4Y} = \frac{3859}{\sqrt{995 \cdot 42011}}$$

$$r_{4Y} = \frac{3859}{\sqrt{41800945}}$$

$$r_{4Y} = \frac{3859}{6465,36503223}$$

$$r_{4Y} = \mathbf{0,597 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{36(4741) - (127)(1313)}{\sqrt{[36(473) - (127)][36(49055) - (1313)^2]}}$$

$$r_{5Y} = \frac{170676 - 166751}{\sqrt{(17028 - 16129)(1765980 - 1723969)}}$$

$$r_{5Y} = \frac{3926}{\sqrt{899 \cdot 42011}}$$

$$r_{5Y} = \frac{3926}{\sqrt{37767889}}$$

$$r_{5Y} = \frac{3926}{6145,55847747}$$

$$r_{5Y} = \mathbf{0,639 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{36(5202) - (137)(1313)}{\sqrt{[36(567) - (137)][36(49055) - (1313)^2]}}$$

$$r_{6Y} = \frac{187272 - 179881}{\sqrt{(20412 - 18769)(1765980 - 1723969)}}$$

$$r_{6Y} = \frac{7391}{\sqrt{1643 \cdot 42011}}$$

$$r_{6Y} = \frac{7391}{\sqrt{69024073}}$$

$$r_{6Y} = \frac{3926}{8308,07276088}$$

$$r_{6Y} = \mathbf{0,890 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{36(4796) - (129)(1313)}{\sqrt{[36(483) - (129)^2][36(49055) - (1313)^2]}}$$

$$r_{7Y} = \frac{172656 - 169377}{\sqrt{(17388 - 16641)(1765980 - 1723969)}}$$

$$r_{7Y} = \frac{3279}{\sqrt{747 \cdot 42011}}$$

$$r_{7Y} = \frac{3279}{\sqrt{31382217}}$$

$$r_{7Y} = \frac{3279}{5601,98330951}$$

$$r_{7Y} = \mathbf{0,585 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{36(4883) - (129)(1313)}{\sqrt{[36(509) - (129)^2][36(49055) - (1313)^2]}}$$

$$r_{8Y} = \frac{175788 - 169377}{\sqrt{(18324 - 16641)(1765980 - 1723969)}}$$

$$r_{8Y} = \frac{6411}{\sqrt{1683 \cdot 42011}}$$

$$r_{8Y} = \frac{6411}{\sqrt{70704513}}$$

$$r_{8Y} = \frac{6411}{8408,5975644}$$

$$r_{8Y} = \mathbf{0,762 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{36(4657) - (125)(1313)}{\sqrt{[36(457) - (125)][36(49055) - (1313)^2]}}$$

$$r_{9Y} = \frac{167652 - 164125}{\sqrt{(16452 - 15625)(1765980 - 1723969)}}$$

$$r_{9Y} = \frac{3527}{\sqrt{827 \cdot 42011}}$$

$$r_{9Y} = \frac{3527}{\sqrt{34743097}}$$

$$r_{9Y} = \frac{3527}{5894,32752738}$$

$$r_{9Y} = \mathbf{0,598 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{36(4291) - (114)(1313)}{\sqrt{[36(398) - (114)][36(49055) - (1313)^2]}}$$

$$r_{10Y} = \frac{154476 - 149682}{\sqrt{(14328 - 12996)(1765980 - 1723969)}}$$

$$r_{10Y} = \frac{4794}{\sqrt{1332 \cdot 42011}}$$

$$r_{10Y} = \frac{4794}{\sqrt{55958652}}$$

$$r_{10Y} = \frac{4794}{7480,55158394}$$

$$r_{10Y} = \mathbf{0,641 \text{ Valid}}$$

Hasil Uji Validitas Manual Variabel X2

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{36(5496) - (142)(1363)}{\sqrt{[36(588) - (142)^2][36(52775) - (1363)^2]}}$$

$$r_{1Y} = \frac{197856 - 193546}{\sqrt{(21168 - 20164)(1899900 - 1857769)}}$$

$$r_{1Y} = \frac{4310}{\sqrt{1004 \cdot 42131}}$$

$$r_{1Y} = \frac{4310}{\sqrt{42299524}}$$

$$r_{1Y} = \frac{4310}{6503,80842276}$$

$$r_{1Y} = \mathbf{0,663 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{36(5059) - (131)(1363)}{\sqrt{[36(495) - (131)^2][36(52775) - (1363)^2]}}$$

$$r_{2Y} = \frac{182124 - 178553}{\sqrt{(17820 - 17161)(1899900 - 1857769)}}$$

$$r_{2Y} = \frac{3571}{\sqrt{659 \cdot 42131}}$$

$$r_{2Y} = \frac{3571}{\sqrt{27764329}}$$

$$r_{2Y} = \frac{3571}{5269,186794}$$

$$r_{2Y} = \mathbf{0,678 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{36(5550) - (144)(1363)}{\sqrt{[36(598) - (144)^2][36(52775) - (1363)^2]}}$$

$$r_{3Y} = \frac{199800 - 196272}{\sqrt{(21528 - 20736)(1899900 - 1857769)}}$$

$$r_{3Y} = \frac{3528}{\sqrt{792 * 42131}}$$

$$r_{3Y} = \frac{3528}{\sqrt{33367752}}$$

$$r_{3Y} = \frac{3528}{5776,48266681}$$

$$r_{3Y} = \mathbf{0,611 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{36(5036) - (130)(1363)}{\sqrt{[36(496) - (130)^2][36(52775) - (1363)^2]}}$$

$$r_{4Y} = \frac{181296 - 177190}{\sqrt{(17856 - 16900)(1899900 - 1857769)}}$$

$$r_{4Y} = \frac{4106}{\sqrt{956 * 42131}}$$

$$r_{4Y} = \frac{4106}{\sqrt{40277236}}$$

$$r_{4Y} = \frac{4106}{6346,43490473}$$

$$r_{4Y} = \mathbf{0,647 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{36(5025) - (130)(1363)}{\sqrt{[36(488) - (130)^2][36(52775) - (1363)^2]}}$$

$$r_{5Y} = \frac{180900 - 177190}{\sqrt{(17568 - 16900)(1899900 - 1857769)}}$$

$$r_{5Y} = \frac{3710}{\sqrt{668 \cdot 42131}}$$

$$r_{5Y} = \frac{3710}{\sqrt{28143508}}$$

$$r_{5Y} = \frac{3710}{5305,0455229}$$

$$r_{5Y} = \mathbf{0,699 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{36(5283) - (136)(1363)}{\sqrt{[36(542) - (136)^2][36(52775) - (1363)^2]}}$$

$$r_{6Y} = \frac{190188 - 185368}{\sqrt{(19512 - 18496)(1899900 - 1857769)}}$$

$$r_{6Y} = \frac{4820}{\sqrt{1016 \cdot 42131}}$$

$$r_{6Y} = \frac{4820}{\sqrt{42805096}}$$

$$r_{6Y} = \frac{4820}{6542,56035509}$$

$$r_{6Y} = \mathbf{0,737 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{36(4990) - (129)(1363)}{\sqrt{[36(481) - (129)^2][36(52775) - (1363)^2]}}$$

$$r_{7Y} = \frac{179640 - 175827}{\sqrt{(17316 - 16641)(1899900 - 1857769)}}$$

$$r_{7Y} = \frac{3813}{\sqrt{675 \cdot 42131}}$$

$$r_{7Y} = \frac{3813}{\sqrt{28438425}}$$

$$r_{7Y} = \frac{3813}{5332,76898056}$$

$$r_{7Y} = \mathbf{0,715 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{36(5490) - (141)(1363)}{\sqrt{[36(583) - (141)^2][36(52775) - (1363)^2]}}$$

$$r_{8Y} = \frac{197640 - 192183}{\sqrt{(20988 - 19881)(1899900 - 1857769)}}$$

$$r_{8Y} = \frac{5457}{\sqrt{11107 \cdot 42131}}$$

$$r_{8Y} = \frac{5457}{\sqrt{46639017}}$$

$$r_{8Y} = \frac{5457}{6829,27646241}$$

$$r_{8Y} = \mathbf{0,799 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{36(5436) - (140)(1363)}{\sqrt{[36(568) - (140)^2][36(52775) - (1363)^2]}}$$

$$r_{9Y} = \frac{195696 - 190820}{\sqrt{(20448 - 19600)(1899900 - 1857769)}}$$

$$r_{9Y} = \frac{4876}{\sqrt{848 \cdot 42131}}$$

$$r_{9Y} = \frac{4876}{\sqrt{35727088}}$$

$$r_{9Y} = \frac{4876}{5977,21406677}$$

$$r_{9Y} = \mathbf{0,816 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{36(5410) - (140)(1363)}{\sqrt{[36(570) - (140)^2][36(52775) - (1363)^2]}}$$

$$r_{10Y} = \frac{194760 - 190820}{\sqrt{(20520 - 19600)(1899900 - 1857769)}}$$

$$r_{10Y} = \frac{3940}{\sqrt{920 \cdot 42131}}$$

$$r_{10Y} = \frac{3940}{\sqrt{38760520}}$$

$$r_{10Y} = \frac{3940}{6225,79472839}$$

$$r_{10Y} = \mathbf{0,633 \text{ Valid}}$$

Hasil Uji Validitas Manual Variabel Y

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{36(5594) - (140)(1415)}{\sqrt{[36(564) - (140)^2][36(56565) - (1415)^2]}}$$

$$r_{1Y} = \frac{201384 - 198100}{\sqrt{(20304 - 19600)(2036340 - 2002225)}}$$

$$r_{1Y} = \frac{3248}{\sqrt{704 \cdot 34115}}$$

$$r_{1Y} = \frac{3284}{\sqrt{24016960}}$$

$$r_{1Y} = \frac{3284}{4900,71015262}$$

$$r_{1Y} = \mathbf{0,670 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{36(6047) - (151)(1415)}{\sqrt{[36(653) - (151)^2][36(56565) - (1415)^2]}}$$

$$r_{2Y} = \frac{217692 - 213665}{\sqrt{(23508 - 22801)(2036340 - 2002225)}}$$

$$r_{2Y} = \frac{4030}{\sqrt{707 \cdot 34115}}$$

$$r_{2Y} = \frac{4030}{\sqrt{24119305}}$$

$$r_{2Y} = \frac{4030}{4911,14090614}$$

$$r_{2Y} = \mathbf{0,820 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{3Y} = \frac{36(5812) - (145)(1415)}{\sqrt{[36(609) - (145)^2][36(56565) - (1415)^2]}}$$

$$r_{3Y} = \frac{209232 - 205175}{\sqrt{(21924 - 21025)(2036340 - 2002225)}}$$

$$r_{3Y} = \frac{4057}{\sqrt{899 \cdot 34115}}$$

$$r_{3Y} = \frac{4057}{\sqrt{30669385}}$$

$$r_{3Y} = \frac{4057}{5537,99467316}$$

$$r_{3Y} = \mathbf{0,733 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{36(6016) - (150)(1415)}{\sqrt{[36(648) - (150)^2][36(56565) - (1415)^2]}}$$

$$r_{4Y} = \frac{216576 - 212250}{\sqrt{(23328 - 22500)(2036340 - 2002225)}}$$

$$r_{4Y} = \frac{4326}{\sqrt{828 \cdot 34115}}$$

$$r_{4Y} = \frac{4326}{\sqrt{28247220}}$$

$$r_{4Y} = \frac{4326}{5314,81137953}$$

$$r_{4Y} = \mathbf{0,814 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{36(5593) - (140)(1415)}{\sqrt{[36(574) - (140)^2][36(56565) - (1415)^2]}}$$

$$r_{5Y} = \frac{201348 - 198100}{\sqrt{(20664 - 19600)(2036340 - 2002225)}}$$

$$r_{5Y} = \frac{3248}{\sqrt{1064 \cdot 34115}}$$

$$r_{5Y} = \frac{3248}{\sqrt{36298360}}$$

$$r_{5Y} = \frac{3248}{6024,81203026}$$

$$r_{5Y} = \mathbf{0,539 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{36(5590) - (140)(1415)}{\sqrt{[36(568) - (140)^2][36(56565) - (1415)^2]}}$$

$$r_{6Y} = \frac{201240 - 198100}{\sqrt{(20448 - 19600)(2036340 - 2002225)}}$$

$$r_{6Y} = \frac{3140}{\sqrt{848 \cdot 34115}}$$

$$r_{6Y} = \frac{3140}{\sqrt{28929520}}$$

$$r_{6Y} = \frac{3140}{5378,61692259}$$

$$r_{6Y} = \mathbf{0,584 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{36(5346) - (134)(1415)}{\sqrt{[36(516) - (134)^2][36(56565) - (1415)^2]}}$$

$$r_{7Y} = \frac{192456 - 189610}{\sqrt{(18576 - 17956)(2036340 - 2002225)}}$$

$$r_{7Y} = \frac{2846}{\sqrt{620 \cdot 34115}}$$

$$r_{7Y} = \frac{2846}{\sqrt{21151300}}$$

$$r_{7Y} = \frac{2810}{4599.0542506}$$

$$r_{7Y} = \mathbf{0,619 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{36(5656) - (142)(1415)}{\sqrt{[36(578) - (142)^2][36(56565) - (1415)^2]}}$$

$$r_{8Y} = \frac{203616 - 200930}{\sqrt{(20808 - 20164)(2036340 - 2002225)}}$$

$$r_{8Y} = \frac{2686}{\sqrt{644 \cdot 34115}}$$

$$r_{8Y} = \frac{2686}{\sqrt{21970060}}$$

$$r_{8Y} = \frac{2686}{4687,22305849}$$

$$r_{8Y} = \mathbf{0,573 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{36(5278) - (132)(1415)}{\sqrt{[36(502) - (132)^2][36(56565) - (1415)^2]}}$$

$$r_{9Y} = \frac{190008 - 186780}{\sqrt{(18072 - 17424)(2036340 - 2002225)}}$$

$$r_{9Y} = \frac{3228}{\sqrt{648 * 34115}}$$

$$r_{9Y} = \frac{3228}{\sqrt{22106520}}$$

$$r_{9Y} = \frac{3228}{4701,75711835}$$

$$r_{9Y} = \mathbf{0,687 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{36(5633) - (141)(1415)}{\sqrt{[36(581) - (141)^2][36(56565) - (1415)^2]}}$$

$$r_{10Y} = \frac{202788 - 199515}{\sqrt{(20916 - 19881)(2036340 - 2002225)}}$$

$$r_{10Y} = \frac{3273}{\sqrt{1035 * 34115}}$$

$$r_{10Y} = \frac{3273}{\sqrt{35309025}}$$

$$r_{10Y} = \frac{3273}{5942,13976611}$$

$$r_{10Y} = \mathbf{0,551 \text{ Valid}}$$

Lampiran 4

Hasil Uji Reliabilitas Variabel X1 Manual

$$\sigma_1 = \frac{633 - \frac{149^2}{36}}{36} = \frac{16,306}{36} = 0,453$$

$$\sigma_6 = \frac{567 - \frac{137^2}{36}}{36} = \frac{45,639}{36} = 1,268$$

$$\sigma_2 = \frac{488 - \frac{130^2}{36}}{36} = \frac{18,556}{36} = 0,515$$

$$\sigma_7 = \frac{483 - \frac{129^2}{36}}{36} = \frac{20,75}{36} = 0,576$$

$$\sigma_3 = \frac{568 - \frac{140^2}{36}}{36} = \frac{23,556}{36} = 0,654$$

$$\sigma_8 = \frac{509 - \frac{129^2}{36}}{36} = \frac{46,75}{36} = 1,299$$

$$\sigma_4 = \frac{519 - \frac{133^2}{36}}{36} = \frac{27,639}{36} = 0,768$$

$$\sigma_9 = \frac{457 - \frac{125^2}{36}}{36} = \frac{22,972}{36} = 0,638$$

$$\sigma_5 = \frac{473 - \frac{127^2}{36}}{36} = \frac{24,972}{36} = 0,694$$

$$\sigma_{10} = \frac{398 - \frac{114^2}{36}}{36} = \frac{37}{36} = 1,028$$

$$\Sigma \sigma_b^2 = 0,453 + 0,515 + 0,654 + 0,768 + 0,694 + 1,268 + 0,576 + 1,299 + 0,638 + 1,028 = \mathbf{7,887}$$

$$\sigma_t^2 = \frac{49055 - \frac{1313^2}{36}}{36} = \frac{1166,972}{36} = \mathbf{32,416}$$

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sigma_b^2}{\sigma_1^2} \right)$$

$$r_{11} = \left(\frac{10}{10-1} \right) \left(1 - \frac{7,887}{32,416} \right) = (1,111)(0,757)$$

$$r_{11} = \mathbf{0,841 \text{ Reliabel}}$$

Hasil Uji Reabilitas Variabel X2 Manual

$$\sigma_1 = \frac{588 - \frac{142^2}{36}}{36} = \frac{27,889}{36} = 0,774$$

$$\sigma_6 = \frac{542 - \frac{136^2}{36}}{36} = \frac{28,222}{36} = 0,784$$

$$\sigma_2 = \frac{495 - \frac{131^2}{36}}{36} = \frac{18,306}{36} = 0,508$$

$$\sigma_7 = \frac{481 - \frac{129^2}{36}}{36} = \frac{18,75}{36} = 0,520$$

$$\sigma_3 = \frac{598 - \frac{144^2}{36}}{36} = \frac{22}{36} = 0,611$$

$$\sigma_8 = \frac{583 - \frac{141^2}{36}}{36} = \frac{30,75}{36} = 0,854$$

$$\sigma_4 = \frac{496 - \frac{130^2}{36}}{36} = \frac{26,556}{36} = 0,738$$

$$\sigma_9 = \frac{568 - \frac{140^2}{36}}{36} = \frac{23,556}{36} = 0,654$$

$$\sigma_5 = \frac{488 - \frac{130^2}{36}}{36} = \frac{18,556}{36} = 0,515$$

$$\sigma_{10} = \frac{570 - \frac{140^2}{36}}{36} = \frac{25,556}{36} = 0,709$$

$$\begin{aligned} \sum \sigma_b^2 &= 0,774 + 0,508 + 0,611 + 0,738 + 0,515 + 0,784 + 0,520 + 0,854 + 0,654 + \\ &0,709 = \mathbf{6,667} \end{aligned}$$

$$\sigma_t^2 = \frac{52775 - \frac{1363^2}{36}}{36} = \frac{1170,306}{36} = \mathbf{32,508}$$

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{a\sigma_b^2}{\sigma_1^2} \right)$$

$$r_{11} = \left(\frac{10}{10-1} \right) \left(1 - \frac{6,667}{32,508} \right) = (1,111)(0,795)$$

$$r_{11} = \mathbf{0,883 \text{ Reliabel}}$$

Hasil Uji Reabilitas Variabel Y Manual

$$\sigma_1 = \frac{564 - \frac{140^2}{36}}{36} = \frac{19,556}{36} = 0,543$$

$$\sigma_6 = \frac{568 - \frac{140^2}{36}}{36} = \frac{23,556}{36} = 0,645$$

$$\sigma_2 = \frac{653 - \frac{151^2}{36}}{36} = \frac{19,639}{36} = 0,546$$

$$\sigma_7 = \frac{516 - \frac{134^2}{36}}{36} = \frac{17,222}{36} = 0,478$$

$$\sigma_3 = \frac{609 - \frac{145^2}{36}}{36} = \frac{24,972}{36} = 0,693$$

$$\sigma_8 = \frac{578 - \frac{142^2}{36}}{36} = \frac{17,889}{36} = 0,497$$

$$\sigma_4 = \frac{648 - \frac{150^2}{36}}{36} = \frac{23}{36} = 0,639$$

$$\sigma_9 = \frac{502 - \frac{132^2}{36}}{36} = \frac{18}{36} = 0,5$$

$$\sigma_5 = \frac{574 - \frac{140^2}{36}}{36} = \frac{29,556}{36} = 0,820$$

$$\sigma_{10} = \frac{581 - \frac{141^2}{36}}{36} = \frac{28,75}{36} = 0,799$$

$$\sum \sigma_b^2 = 0,543 + 0,546 + 0,693 + 0,639 + 0,820 + 0,645 + 0,478 + 0,497 + 0,5 + 0,799 = \mathbf{6.16}$$

$$\sigma_t^2 = \frac{56565 - \frac{1415^2}{36}}{36} = \frac{947,639}{36} = \mathbf{26,323}$$

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sigma_b^2}{\sigma_t^2} \right)$$

$$r_{11} = \left(\frac{10}{10-1} \right) \left(1 - \frac{6,16}{26,323} \right) = (1,111)(0,766)$$

$$r_{11} = \mathbf{0,851 \text{ Reliabel}}$$

Lampiran 5

Hasil Analisis Regresi Linear Bergand Metode Matriks Manual

$$\begin{array}{r}
 n \quad X_1 \quad X_2 \quad Y \\
 A = \begin{array}{ccc} X_1 & X_1^2 & X_1X_2 \\ X_2 & X_1X_2 & X_2^2 \end{array} \quad H = \begin{array}{c} X_1Y \\ X_2Y \end{array}
 \end{array}$$

Matrik A		
36	1313	1363
1313	49055	49965
1363	49965	52775

Matrik A2		
36	1415	1363
1313	52381	49965
1363	53980	52775

Matrik A1		
1415	1313	1363
52381	49055	49965
53980	49965	52775

Matrik A3		
36	1313	1415
1313	49055	52381
1363	49965	53980

Matrik H
1415
52381
53980

Determinan A = 46854800

Determinan A1 = 409646720

Determinan A2 = 28851131

Determinan A3 = 10029879

$$b_0 = \frac{Det A1}{Det A} \quad b_1 = \frac{409646720}{46854800} = 8,743$$

$$b_2 = \frac{28851131}{46854800} = 0,616$$

$$b_3 = \frac{10029879}{46854800} = 0,214$$

Maka Persamaan regresi linear berganda adalah

$$Y = 8,743 + 0,616 X_1 + 0. 214 X_2 = e$$

Uji t (Parsial) Manual

$$t_i = \frac{b_j}{sb_j}$$

Dik :

$$b_1 = 0,616$$

$$b_2 = 0,214$$

$$sb_1 = 0,102$$

$$sb_2 = 0,102$$

$$t_1 = \frac{b_1}{sb_1} = \frac{0,616}{0,102} = \mathbf{6,014}$$

$$t_2 = \frac{b_2}{sb_2} = \frac{0,214}{0,102} = \mathbf{2,094}$$

Dari daftar distribusi t_1 untuk $dk = 36$ diperoleh $t_{tabel} = 2,028$ pada $\alpha = 0,05$, sehingga ternyata t_{hitung} yaitu $6,014 > 2,028$, maka H_a diterima dan H_o ditolak.

Dari daftar distribusi t_2 untuk $dk = 36$ diperoleh $t_{tabel} = 2,028$ pada $\alpha = 0,05$, sehingga ternyata t_{hitung} yaitu $2,094 > 2,028$, maka H_a diterima dan H_o ditolak.

Uji F Manual

$$F_h = \frac{\frac{R^2}{k}}{\frac{(1-R^2)}{(n-k-1)}}$$

Dik

F_h = nilai uji F

R^2 = 0,771

k = 2

n = 36

$$F_h = \frac{\frac{R^2}{k}}{\frac{(1-R^2)}{(n-k-1)}}$$

$$F_h = \frac{\frac{0,771^2}{2}}{\frac{(1-0,771^2)}{(36-2-1)}} = \frac{0,297}{(0,406)} = \frac{0,297}{0,012} = \mathbf{24,139}$$

Berdasarkan uji F tersebut diperoleh nilai F_{hitung} 24,139 > F_{tabel} 3,259,
maka H_a diterima karena $F_{hitung} > F_{tabel}$

Uji Koefisien Determinasi Manual

$D = r^2 \times 100\%$

$D = (r)^2 \times 100\%$

$D = (0,771)^2 \times 100\%$

$D = 0,5944 \times 100\%$

$D = \mathbf{59,44\%}$

Perbandingan Hasil Tabulasi Variabel X1

NO	No Item Pertanyaan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	5	4	4	4	4	4	4	4	4	3	40
2	5	3	3	3	3	2	3	3	4	3	32
3	5	4	4	5	3	2	4	5	3	3	38
4	4	5	4	5	4	2	5	4	4	4	41
5	5	5	5	3	3	2	5	3	5	5	41
6	5	3	5	5	4	2	3	4	4	5	40
7	4	4	3	3	3	2	4	3	5	3	34
8	3	3	3	3	3	2	5	5	4	3	34
9	3	4	3	3	3	2	4	3	4	3	32
10	5	4	5	5	3	5	4	3	4	4	42
11	4	3	4	3	4	3	3	4	3	3	34
12	4	3	5	4	4	2	3	4	3	3	35
13	3	5	5	3	3	3	5	2	3	4	36
14	3	3	3	3	3	3	3	3	3	3	30
15	4	4	5	4	3	3	4	4	3	4	38
16	4	4	4	5	5	3	4	5	4	3	41
17	4	3	3	3	3	3	3	4	3	4	33
18	3	4	2	4	4	4	4	4	3	3	35
19	4	3	4	5	3	3	3	3	4	3	35
20	5	3	5	5	4	5	3	5	4	4	43
21	5	5	5	3	4	5	5	5	4	2	43
22	4	4	5	5	5	5	4	4	4	4	44
23	5	3	3	3	3	3	3	4	3	3	33
24	4	3	4	4	4	4	3	4	4	4	38
25	4	4	3	4	4	2	4	3	3	2	33
26	4	3	4	4	3	2	3	5	3	2	33
27	4	3	3	3	2	3	3	3	4	2	30
28	3	3	3	3	3	3	3	3	3	2	29
29	4	3	4	3	3	2	3	3	2	2	29
30	4	3	5	3	5	2	3	5	3	2	35
$\sum X$	123	108	118	113	105	88	110	114	107	95	
$\sum Y$											1081
$\sum X^2$	519	404	488	447	383	290	420	454	395	323	
$\sum Y^2$											39523
$\sum X*Y$	4480	3942	4331	4143	3835	3243	4010	4152	3899	3488	

Hasil Perbandingan Tabulasi Variabel X2

NO	No Item Pertanyaan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	4	4	3	4	4	4	4	4	2	3	36
2	5	4	4	3	3	3	3	3	3	3	34
3	5	4	4	5	4	5	4	5	3	3	42
4	5	5	5	5	5	5	5	5	4	4	48
5	3	5	4	3	5	3	5	3	5	3	39
6	5	3	3	5	3	5	3	5	4	3	39
7	3	4	4	3	4	3	4	3	5	3	36
8	4	3	3	3	4	4	3	3	3	4	34
9	3	3	4	3	4	3	4	3	4	3	34
10	5	4	3	5	4	5	4	5	4	2	41
11	3	3	3	3	3	3	3	3	3	3	30
12	4	3	3	4	3	4	3	4	3	3	34
13	3	5	2	3	5	3	5	3	3	4	36
14	3	2	3	3	3	3	3	3	3	3	29
15	5	2	2	4	4	5	2	3	3	4	34
16	4	2	2	3	4	4	2	3	5	3	32
17	3	5	5	4	5	3	2	3	5	5	40
18	4	3	4	3	3	3	3	3	3	3	32
19	5	3	5	5	3	2	3	3	3	3	35
20	5	4	3	3	4	2	4	4	4	3	36
21	4	4	2	4	3	3	3	3	3	3	32
22	5	4	5	5	2	5	4	3	4	3	40
23	3	3	4	3	3	3	3	3	3	3	31
24	2	3	2	4	3	4	3	2	3	3	29
25	2	4	4	4	4	4	4	3	3	2	34
26	4	3	5	4	3	4	3	4	3	3	36
27	3	2	4	3	2	3	2	3	4	2	28
28	3	2	3	3	3	3	2	3	3	3	28
29	3	2	3	3	3	3	3	3	2	3	28
30	3	3	4	3	3	3	3	3	3	1	29
$\sum X$	113	101	105	110	106	107	99	101	103	91	
$\sum Y$											1036
$\sum X^2$	453	367	395	422	394	405	349	357	373	291	
$\sum Y^2$											36440
$\sum X*Y$	3979	3586	3682	3873	3725	3760	3491	3561	3604	3179	

Hasil Tabulasi Perbandingan Variabel Y

NO	No Item Pertanyaan										Jumlah
	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	
1	5	5	4	5	5	3	3	4	3	5	42
2	3	5	3	5	5	5	3	5	3	5	42
3	5	5	4	5	3	5	5	5	5	3	45
4	4	5	4	5	3	4	4	5	4	3	41
5	5	5	5	5	5	3	3	4	3	5	43
6	5	4	5	4	3	5	5	4	5	3	43
7	4	3	3	3	5	2	4	4	4	5	37
8	5	4	3	4	3	3	2	3	3	3	33
9	4	4	3	4	4	4	4	4	4	4	39
10	4	5	5	5	4	4	4	4	4	4	43
11	3	4	4	4	3	5	4	3	4	3	37
12	4	4	5	4	2	4	4	4	4	2	37
13	3	4	5	4	3	4	3	5	3	3	37
14	3	3	3	3	3	3	3	3	3	3	30
15	4	4	5	4	5	4	4	4	4	5	43
16	4	4	4	4	3	5	5	4	5	3	41
17	4	4	3	2	3	2	2	4	2	3	29
18	4	4	2	4	2	2	2	3	2	2	27
19	3	3	4	5	2	4	3	4	3	2	33
20	5	3	3	5	2	4	4	4	4	5	39
21	4	3	3	5	2	4	4	5	4	5	39
22	5	3	3	5	2	5	5	4	2	3	37
23	5	3	2	5	2	5	5	5	2	3	37
24	4	4	4	4	5	3	4	3	3	3	37
25	3	4	3	4	3	3	3	3	3	3	32
26	4	3	4	3	3	3	3	3	3	3	32
27	4	4	3	4	2	4	4	3	3	2	33
28	3	3	3	3	3	3	3	3	3	3	30
29	4	4	4	4	5	3	3	3	3	5	38
30	3	5	5	5	3	3	3	5	3	3	38
$\sum X$	120	118	111	126	98	111	108	117	101	104	
$\sum Y$											1114
$\sum X^2$	496	480	435	548	356	437	412	473	361	392	
$\sum Y^2$											42030
$\sum X*Y$	4496	4436	4192	4748	3706	4197	4084	4406	3825	3940	

Hasil Uji Validitas Perbandingan Variabel X1

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{30(4480) - (123)(1081)}{\sqrt{[30(519) - (123)^2][30(39523) - (1081)^2]}}$$

$$r_{1Y} = \frac{134400 - 132963}{\sqrt{(15570 - 15129)(1185690 - 1168561)}}$$

$$r_{1Y} = \frac{1437}{\sqrt{441 \cdot 17129}}$$

$$r_{1Y} = \frac{1437}{\sqrt{7553889}}$$

$$r_{1Y} = \frac{1437}{2748,43391771}$$

$$r_{1Y} = \mathbf{0,523 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{30(3942) - (108)(1081)}{\sqrt{[30(404) - (108)^2][30(3952) - (1081)^2]}}$$

$$r_{2Y} = \frac{118260 - 116746}{\sqrt{(12120 - 11664)(118560 - 1168561)}}$$

$$r_{2Y} = \frac{1512}{\sqrt{456 \cdot 17129}}$$

$$r_{2Y} = \frac{1512}{\sqrt{7810824}}$$

$$r_{2Y} = \frac{1512}{2794,7851438}$$

$$r_{2Y} = \mathbf{0,541 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{3Y} = \frac{30(4331) - (118)(1081)}{\sqrt{[30(488) - (118)^2][30(39523) - (1081)^2]}}$$

$$r_{3Y} = \frac{129930 - 127558}{\sqrt{(14640 - 13924)(1185690 - 1168561)}}$$

$$r_{3Y} = \frac{2372}{\sqrt{716 \cdot 17129}}$$

$$r_{3Y} = \frac{2372}{\sqrt{12264364}}$$

$$r_{3Y} = \frac{2372}{3502,05139882}$$

$$r_{3Y} = \mathbf{0,677 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{30(4143) - (113)(1081)}{\sqrt{[30(447) - (113)^2][30(39523) - (1081)^2]}}$$

$$r_{4Y} = \frac{124290 - 122153}{\sqrt{(13410 - 12769)(1185690 - 1168561)}}$$

$$r_{4Y} = \frac{2137}{\sqrt{641 \cdot 17129}}$$

$$r_{4Y} = \frac{2137}{\sqrt{10979689}}$$

$$r_{4Y} = \frac{2137}{3313,56137713}$$

$$r_{4Y} = \mathbf{0,645 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{30(3835) - (105)(1081)}{\sqrt{[30(383) - (105)^2][30(39523) - (1081)^2]}}$$

$$r_{5Y} = \frac{115050 - 113505}{\sqrt{(11490 - 11025)(1185690 - 1168561)}}$$

$$r_{5Y} = \frac{1545}{\sqrt{465 \cdot 17129}}$$

$$r_{5Y} = \frac{1545}{\sqrt{7964985}}$$

$$r_{5Y} = \frac{1545}{2822,23050086}$$

$$r_{5Y} = \mathbf{0,547 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{30(3243) - (88)(1081)}{\sqrt{[30(290) - (88)^2][30(39523) - (1081)^2]}}$$

$$r_{6Y} = \frac{97290 - 95128}{\sqrt{(8700 - 7744)(1185690 - 1168561)}}$$

$$r_{6Y} = \frac{2162}{\sqrt{965 \cdot 17129}}$$

$$r_{6Y} = \frac{2162}{\sqrt{16375324}}$$

$$r_{6Y} = \frac{2162}{4046,6435744}$$

$$r_{6Y} = \mathbf{0,534 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{30(4010) - (110)(1081)}{\sqrt{[30(420) - (110)^2][30(39523) - (1081)^2]}}$$

$$r_{7Y} = \frac{120300 - 118910}{\sqrt{(12600 - 12100)(1185690 - 1168561)}}$$

$$r_{7Y} = \frac{1390}{\sqrt{500 \cdot 17129}}$$

$$r_{7Y} = \frac{1390}{\sqrt{8564500}}$$

$$r_{7Y} = \frac{1390}{2926,51670079}$$

$$r_{7Y} = \mathbf{0,475 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{30(4152) - (114)(1081)}{\sqrt{[30(454) - (114)^2][30(39523) - (1081)^2]}}$$

$$r_{8Y} = \frac{124560 - 123234}{\sqrt{(13620 - 12996)(1185690 - 1168561)}}$$

$$r_{8Y} = \frac{1326}{\sqrt{624 \cdot 17129}}$$

$$r_{8Y} = \frac{1326}{\sqrt{10688496}}$$

$$r_{8Y} = \frac{1326}{3269,32653615}$$

$$r_{8Y} = \mathbf{0,406 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{30(3899) - (107)(1081)}{\sqrt{[30(395) - (107)^2][30(39523) - (1081)^2]}}$$

$$r_{9Y} = \frac{116970 - 115667}{\sqrt{(11850 - 11449)(1185690 - 1168561)}}$$

$$r_{9Y} = \frac{1303}{\sqrt{401 \cdot 117129}}$$

$$r_{9Y} = \frac{1303}{\sqrt{6868729}}$$

$$r_{9Y} = \frac{1303}{2620,82601483}$$

$$r_{9Y} = \mathbf{0,497 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{30(3488) - (95)(1081)}{\sqrt{[30(323) - (95)^2][30(39523) - (1081)^2]}}$$

$$r_{10Y} = \frac{104640 - 102695}{\sqrt{(9690 - 9023)(1185690 - 1168561)}}$$

$$r_{10Y} = \frac{1945}{\sqrt{665 \cdot 17129}}$$

$$r_{10Y} = \frac{1945}{\sqrt{11390785}}$$

$$r_{10Y} = \frac{1945}{3375,02370362}$$

$$r_{10Y} = \mathbf{0,576 \text{ Valid}}$$

Hasil Uji Validitas Perbandingan Variabel X2 Manual

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{30(3979) - (113)(1036)}{\sqrt{[30(453) - (113)^2][30(36440) - (1036)^2]}}$$

$$r_{1Y} = \frac{119370 - 117068}{\sqrt{(13590 - 12769)(1093200 - 1073296)}}$$

$$r_{1Y} = \frac{2302}{\sqrt{821 \cdot 19904}}$$

$$r_{1Y} = \frac{2302}{\sqrt{16341184}}$$

$$r_{1Y} = \frac{2302}{4042,42303575}$$

$$r_{1Y} = \mathbf{0,569 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{30(3586) - (101)(1036)}{\sqrt{[30(367) - (101)^2][30(36440) - (1036)^2]}}$$

$$r_{2Y} = \frac{107586 - 104636}{\sqrt{(11010 - 10201)(1093200 - 1073296)}}$$

$$r_{2Y} = \frac{2950}{\sqrt{809 \cdot 19904}}$$

$$r_{2Y} = \frac{2950}{\sqrt{16102336}}$$

$$r_{2Y} = \frac{2950}{4012,77161074}$$

$$r_{2Y} = \mathbf{0,734 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{3Y} = \frac{30(3682) - (105)(1036)}{\sqrt{[30(395) - (105)^2][30(36440) - (1036)^2]}}$$

$$r_{3Y} = \frac{110460 - 108780}{\sqrt{(11850 - 11025)(1093200 - 1073296)}}$$

$$r_{3Y} = \frac{1680}{\sqrt{825 \cdot 19904}}$$

$$r_{3Y} = \frac{1680}{\sqrt{16420800}}$$

$$r_{3Y} = \frac{1680}{4052,25862946}$$

$$r_{3Y} = \mathbf{0,415 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{30(3873) - (110)(1036)}{\sqrt{[30(422) - (110)^2][30(36440) - (1036)^2]}}$$

$$r_{4Y} = \frac{116190 - 113960}{\sqrt{(12660 - 12100)(1093200 - 1073296)}}$$

$$r_{4Y} = \frac{2230}{\sqrt{560 \cdot 19904}}$$

$$r_{4Y} = \frac{2230}{\sqrt{11146240}}$$

$$r_{4Y} = \frac{2230}{3338,59850836}$$

$$r_{4Y} = \mathbf{0,668 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{30(3725) - (106)(1036)}{\sqrt{[30(394) - (106)^2][30(36440) - (1036)^2]}}$$

$$r_{5Y} = \frac{111750 - 109816}{\sqrt{(11820 - 11236)(1093200 - 1073296)}}$$

$$r_{5Y} = \frac{1934}{\sqrt{584 \cdot 19904}}$$

$$r_{5Y} = \frac{1934}{\sqrt{11623936}}$$

$$r_{5Y} = \frac{1934}{3409,38938815}$$

$$r_{5Y} = \mathbf{0,567 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{30(3760) - (107)(1036)}{\sqrt{[30(405) - (107)^2][30(36440) - (1036)^2]}}$$

$$r_{6Y} = \frac{112800 - 110852}{\sqrt{(12150 - 11449)(1093200 - 1073296)}}$$

$$r_{6Y} = \frac{1948}{\sqrt{701 \cdot 19904}}$$

$$r_{6Y} = \frac{1948}{\sqrt{13952704}}$$

$$r_{6Y} = \frac{1948}{3735,33184603}$$

$$r_{6Y} = \mathbf{0,522 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{30(3491) - (99)(1036)}{\sqrt{[30(349) - (99)^2][30(36440) - (1036)^2]}}$$

$$r_{7Y} = \frac{104730 - 102564}{\sqrt{(10470 - 9801)(1093200 - 1073296)}}$$

$$r_{7Y} = \frac{2166}{\sqrt{669 \cdot 19904}}$$

$$r_{7Y} = \frac{2166}{\sqrt{13315776}}$$

$$r_{7Y} = \frac{2166}{3649,07878786}$$

$$r_{7Y} = \mathbf{0,594 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{30(3561) - (101)(1036)}{\sqrt{[30(357) - (101)^2][30(36440) - (1036)^2]}}$$

$$r_{8Y} = \frac{106830 - 104636}{\sqrt{(10710 - 10201)(1093200 - 1073296)}}$$

$$r_{8Y} = \frac{2194}{\sqrt{509 \cdot 19904}}$$

$$r_{8Y} = \frac{2194}{\sqrt{10131136}}$$

$$r_{8Y} = \frac{2194}{3182,94454868}$$

$$r_{8Y} = \mathbf{0,689 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{30(3604) - (103)(1036)}{\sqrt{[30(373) - (103)^2][30(36440) - (1036)^2]}}$$

$$r_{9Y} = \frac{108120 - 106708}{\sqrt{(11190 - 10609)(1093200 - 1073296)}}$$

$$r_{9Y} = \frac{1412}{\sqrt{581 \cdot 19904}}$$

$$r_{9Y} = \frac{1412}{\sqrt{11564224}}$$

$$r_{9Y} = \frac{1412}{3400,62111974}$$

$$r_{9Y} = \mathbf{0,415 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{30(3179) - (91)(1036)}{\sqrt{[30(291) - (91)^2][30(36440) - (1036)^2]}}$$

$$r_{10Y} = \frac{95370 - 8281}{\sqrt{(8730 - 8281)(1093200 - 1073296)}}$$

$$r_{10Y} = \frac{1094}{\sqrt{449 \cdot 19904}}$$

$$r_{10Y} = \frac{1094}{\sqrt{8936896}}$$

$$r_{10Y} = \frac{1094}{2989,46416603}$$

$$r_{10Y} = \mathbf{0,366 \text{ Tidak Valid}}$$

Hasil Uji Validitas Variabel Y Manual

$$r_{1Y} = \frac{n\sum X_1 Y - (\sum X_1)(\sum Y)}{\sqrt{[n\sum X_1^2 - (\sum X_1)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{1Y} = \frac{30(4496) - (120)(1114)}{\sqrt{[30(496) - (120)^2][30(42030) - (1114)^2]}}$$

$$r_{1Y} = \frac{134880 - 133680}{\sqrt{(14880 - 14400)(1260900 - 1240996)}}$$

$$r_{1Y} = \frac{1200}{\sqrt{480 \cdot 19904}}$$

$$r_{1Y} = \frac{1200}{\sqrt{9553920}}$$

$$r_{1Y} = \frac{1200}{3090,94160411}$$

$$r_{1Y} = \mathbf{0,388 \text{ Valid}}$$

$$r_{2Y} = \frac{n\sum X_2 Y - (\sum X_2)(\sum Y)}{\sqrt{[n\sum X_2^2 - (\sum X_2)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{2Y} = \frac{30(4436) - (118)(1114)}{\sqrt{[30(480) - (118)^2][30(42030) - (1114)^2]}}$$

$$r_{2Y} = \frac{133080 - 131452}{\sqrt{(14400 - 13924)(1260900 - 1240996)}}$$

$$r_{2Y} = \frac{1628}{\sqrt{476 \cdot 19904}}$$

$$r_{2Y} = \frac{1628}{\sqrt{9474304}}$$

$$r_{2Y} = \frac{1628}{3078,03573728}$$

$$r_{2Y} = \mathbf{0,529 \text{ Valid}}$$

$$r_{3Y} = \frac{n\sum X_3 Y - (\sum X_3)(\sum Y)}{\sqrt{[n\sum X_3^2 - (\sum X_3)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{3Y} = \frac{30(4192) - (111)(1114)}{\sqrt{[30(435) - (111)^2][30(42030) - (1114)^2]}}$$

$$r_{3Y} = \frac{125760 - 123654}{\sqrt{(13050 - 12321)(1260900 - 1240996)}}$$

$$r_{3Y} = \frac{2106}{\sqrt{729 \cdot 19904}}$$

$$r_{3Y} = \frac{2106}{\sqrt{14510016}}$$

$$r_{3Y} = \frac{2106}{3809,20149113}$$

$$r_{3Y} = \mathbf{0,553 \text{ Valid}}$$

$$r_{4Y} = \frac{n\sum X_4 Y - (\sum X_4)(\sum Y)}{\sqrt{[n\sum X_4^2 - (\sum X_4)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{4Y} = \frac{30(4748) - (126)(1114)}{\sqrt{[30(548) - (126)^2][30(42030) - (1114)^2]}}$$

$$r_{4Y} = \frac{142440 - 140364}{\sqrt{(16440 - 15876)(1260900 - 1240996)}}$$

$$r_{4Y} = \frac{2076}{\sqrt{564 \cdot 19904}}$$

$$r_{4Y} = \frac{2076}{\sqrt{11225856}}$$

$$r_{4Y} = \frac{2076}{3350,500885808}$$

$$r_{4Y} = \mathbf{0,620 \text{ Valid}}$$

$$r_{5Y} = \frac{n\sum X_5 Y - (\sum X_5)(\sum Y)}{\sqrt{[n\sum X_5^2 - (\sum X_5)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{5Y} = \frac{30(3706) - (98)(1114)}{\sqrt{[30(356) - (98)^2][30(42030) - (1114)^2]}}$$

$$r_{5Y} = \frac{111180 - 109172}{\sqrt{(10680 - 9604)(1260900 - 1240996)}}$$

$$r_{5Y} = \frac{2008}{\sqrt{1076 \cdot 19904}}$$

$$r_{5Y} = \frac{2008}{\sqrt{21416704}}$$

$$r_{5Y} = \frac{2008}{4627,81849255}$$

$$r_{5Y} = \mathbf{0,434 \text{ Valid}}$$

$$r_{6Y} = \frac{n\sum X_6 Y - (\sum X_6)(\sum Y)}{\sqrt{[n\sum X_6^2 - (\sum X_6)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{6Y} = \frac{30(4197) - (111)(1114)}{\sqrt{[30(437) - (111)^2][30(42030) - (1114)^2]}}$$

$$r_{6Y} = \frac{125910 - 123654}{\sqrt{(13110 - 12321)(1260900 - 1240996)}}$$

$$r_{6Y} = \frac{2256}{\sqrt{789 \cdot 19904}}$$

$$r_{6Y} = \frac{2256}{\sqrt{15704256}}$$

$$r_{6Y} = \frac{2256}{3962,85957359}$$

$$r_{6Y} = \mathbf{0,569 \text{ Valid}}$$

$$r_{7Y} = \frac{n\sum X_7 Y - (\sum X_7)(\sum Y)}{\sqrt{[n\sum X_7^2 - (\sum X_7)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{7Y} = \frac{30(4084) - (108)(1114)}{\sqrt{[30(412) - (108)^2][30(42030) - (1114)^2]}}$$

$$r_{7Y} = \frac{122520 - 120312}{\sqrt{(12360 - 1164)(1260900 - 1240996)}}$$

$$r_{7Y} = \frac{2208}{\sqrt{696 \cdot 19904}}$$

$$r_{7Y} = \frac{2208}{\sqrt{13878240}}$$

$$r_{7Y} = \frac{2208}{3725,350999018}$$

$$r_{7Y} = \mathbf{0,593 \text{ Valid}}$$

$$r_{8Y} = \frac{n\sum X_8 Y - (\sum X_8)(\sum Y)}{\sqrt{[n\sum X_8^2 - (\sum X_8)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{8Y} = \frac{30(4406) - (117)(1114)}{\sqrt{[30(473) - (117)^2][30(42030) - (1114)^2]}}$$

$$r_{8Y} = \frac{132180 - 130338}{\sqrt{(14190 - 13689)(1260900 - 1240996)}}$$

$$r_{8Y} = \frac{1842}{\sqrt{501 \cdot 19904}}$$

$$r_{8Y} = \frac{1842}{\sqrt{9971904}}$$

$$r_{8Y} = \frac{1842}{3157,8321678}$$

$$r_{8Y} = \mathbf{0,583 \text{ Valid}}$$

$$r_{9Y} = \frac{n\sum X_9 Y - (\sum X_9)(\sum Y)}{\sqrt{[n\sum X_9^2 - (\sum X_9)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{9Y} = \frac{30(3825) - (101)(1114)}{\sqrt{[30(361) - (101)^2][30(42030) - (1114)^2]}}$$

$$r_{9Y} = \frac{114750 - 112514}{\sqrt{(10830 - 10201)(1260900 - 1240996)}}$$

$$r_{9Y} = \frac{2236}{\sqrt{629 \cdot 19904}}$$

$$r_{9Y} = \frac{2236}{\sqrt{12519616}}$$

$$r_{9Y} = \frac{2236}{3538,30693977}$$

$$r_{9Y} = \mathbf{0,632 \text{ Valid}}$$

$$r_{10Y} = \frac{n\sum X_{10} Y - (\sum X_{10})(\sum Y)}{\sqrt{[n\sum X_{10}^2 - (\sum X_{10})^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r_{10Y} = \frac{30(3940) - (104)(1114)}{\sqrt{[30(392) - (104)^2][30(42030) - (1114)^2]}}$$

$$r_{10Y} = \frac{118200 - 115856}{\sqrt{(11760 - 10816)(1260900 - 1240996)}}$$

$$r_{10Y} = \frac{2344}{\sqrt{944 \cdot 19904}}$$

$$r_{10Y} = \frac{2344}{\sqrt{18789376}}$$

$$r_{10Y} = \frac{2344}{4334,67138316}$$

$$r_{10Y} = \mathbf{0,541 \text{ Valid}}$$

Lampiran 7

Hasil Uji Reliabilitas Variabel Pemanding X1 Manual

$$\sigma_1 = \frac{519 - \frac{123^2}{30}}{30} = \frac{14,7}{30} = 0,49$$

$$\sigma_6 = \frac{290 - \frac{88^2}{30}}{30} = \frac{31,867}{30} = 1,062$$

$$\sigma_2 = \frac{404 - \frac{108^2}{30}}{30} = \frac{15,2}{30} = 0,506$$

$$\sigma_7 = \frac{420 - \frac{110^2}{30}}{30} = \frac{16,667}{30} = 0,556$$

$$\sigma_3 = \frac{488 - \frac{118^2}{30}}{30} = \frac{23,867}{30} = 0,795$$

$$\sigma_8 = \frac{454 - \frac{114^2}{30}}{30} = \frac{20,8}{30} = 0,693$$

$$\sigma_4 = \frac{447 - \frac{113^2}{30}}{30} = \frac{21,367}{30} = 0,712$$

$$\sigma_9 = \frac{395 - \frac{107^2}{30}}{30} = \frac{13,367}{30} = 0,445$$

$$\sigma_5 = \frac{383 - \frac{105^2}{30}}{30} = \frac{15,5}{30} = 0,517$$

$$\sigma_{10} = \frac{323 - \frac{95^2}{30}}{30} = \frac{22,167}{30} = 0,739$$

$$\begin{aligned} \Sigma \sigma_b^2 &= 0,49 + 0,506 + 0,795 + 0,712 + 0,516 + 1,062 + 0,555 + 0,693 + 0,445 + 0,739 \\ &= \mathbf{6,515} \end{aligned}$$

$$\sigma_t^2 = \frac{39523 - \frac{1081^2}{30}}{30} = \frac{570,9667}{30} = \mathbf{19,032}$$

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{a\sigma_b^2}{\sigma_t^2} \right)$$

$$sr_{11} = \left(\frac{10}{10-1} \right) \left(1 - \frac{6,515}{19,032} \right) = (1,111)(0,657)$$

$$r_{11} = \mathbf{0,731 \text{ Reliabel}}$$

Hasil Uji Reliabilitas Variabel Pemandang X2

$$\sigma_1 = \frac{453 - \frac{113^2}{30}}{30} = \frac{27,367}{30} = 0,912$$

$$\sigma_6 = \frac{405 - \frac{107^2}{30}}{30} = \frac{23,367}{30} = 0,779$$

$$\sigma_2 = \frac{367 - \frac{101^2}{30}}{30} = \frac{26,967}{30} = 0,899$$

$$\sigma_7 = \frac{349 - \frac{99^2}{30}}{30} = \frac{22,3}{30} = 0,743$$

$$\sigma_3 = \frac{395 - \frac{105^2}{30}}{30} = \frac{27,5}{30} = 0,917$$

$$\sigma_8 = \frac{357 - \frac{101^2}{30}}{30} = \frac{16,967}{30} = 0,566$$

$$\sigma_4 = \frac{422 - \frac{110^2}{30}}{30} = \frac{18,667}{30} = 0,622$$

$$\sigma_9 = \frac{373 - \frac{103^2}{30}}{30} = \frac{19,367}{30} = 0,646$$

$$\sigma_5 = \frac{394 - \frac{106^2}{30}}{30} = \frac{19,467}{30} = 0,649$$

$$\sigma_{10} = \frac{291 - \frac{91^2}{30}}{30} = \frac{14,967}{30} = 0,499$$

$$\begin{aligned} \sum \sigma_b^2 &= 0,912 + 0,899 + 0,917 + 0,622 + 0,649 + 0,779 + 0,743 + 0,566 + 0,646 + 0,499 \\ &= 7,232 \end{aligned}$$

$$\sigma_t^2 = \frac{36440 - \frac{1036^2}{30}}{30} = \frac{663,467}{30} = 22,115$$

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{a\sigma_b^2}{\sigma_1^2} \right)$$

$$r_{11} = \left(\frac{10}{10-1} \right) \left(1 - \frac{7,232}{22,115} \right) = (1,111)(0,672)$$

$$r_{11} = 0,748 \text{ Reliabel}$$

Hasil Uji Reabilitas Variabel Y

$$\sigma_1 = \frac{496 - \frac{120^2}{30}}{30} = \frac{16}{30} = 0,533$$

$$\sigma_6 = \frac{437 - \frac{111^2}{30}}{30} = \frac{26,3}{30} = 0,876$$

$$\sigma_2 = \frac{480 - \frac{118^2}{30}}{30} = \frac{15,867}{30} = 0,529$$

$$\sigma_7 = \frac{412 - \frac{108^2}{30}}{30} = \frac{23,2}{30} = 0,773$$

$$\sigma_3 = \frac{435 - \frac{111^2}{30}}{30} = \frac{24,3}{30} = 0,81$$

$$\sigma_8 = \frac{473 - \frac{117^2}{30}}{30} = \frac{16,7}{30} = 0,557$$

$$\sigma_4 = \frac{548 - \frac{126^2}{30}}{30} = \frac{18,8}{30} = 0,626$$

$$\sigma_9 = \frac{361 - \frac{101^2}{30}}{30} = \frac{20,966}{30} = 0,699$$

$$\sigma_5 = \frac{356 - \frac{98^2}{30}}{30} = \frac{35,867}{30} = 1,196$$

$$\sigma_{10} = \frac{392 - \frac{104^2}{30}}{30} = \frac{31,467}{30} = 1,049$$

$$\begin{aligned}\Sigma \sigma_b^2 &= 0,533 + 0,529 + 0,81 + 0,626 + 1,196 + 0,876 + 0,773 + 0,557 + 0,699 + 1,049 \\ &= 7,648\end{aligned}$$

$$\sigma_t^2 = \frac{42030 - \frac{1114^2}{30}}{30} = \frac{663,465}{30} = 22,115$$

$$r_{11} = \left(\frac{k}{k-1}\right) \left(1 - \frac{a\sigma_b^2}{\sigma_1^2}\right)$$

$$r_{11} = \left(\frac{10}{10-1}\right) \left(1 - \frac{7,649}{22,115}\right) = (1,111)(0,654)$$

$$r_{11} = 0,727 \text{ Reliabel}$$