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STATISTIK PENERBITAN
Universiti Penyelidikan Malaysia
dalam ISI Web of Science & SCImago
2001-2012

Bahagian Perkhidmatan Penyelidikan
Perpustakaan Tun Seri Lanang, UKM
2013

STATISTIK PENERBITAN
Universiti Penyelidikan Malaysia
dalam ISI Web of Science & SCImago
2001-2012

Disediakan oleh:

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Bahagian Perkhidmatan Penyelidikan
Perpustakaan Tun Seri Lanang, UKM
2013

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<http://www.ukm.my/library>

eISBN: 978-983-40611-6-6

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KATA ALUAN

Statistik ini disediakan oleh Perpustakaan dengan tujuan untuk memaklumkan pencapaian indikator penerbitan Universiti Penyelidikan (UP) Malaysia iaitu Universiti Kebangsaan Malaysia, Universiti Malaya, Universiti Sains Malaysia, Universiti Putra Malaysia dan Universiti Teknologi Malaysia.

Indikator yang dilaporkan adalah bilangan penerbitan, bilangan petikan, jenis penerbitan, faktor impak kumulatif serta melaporkan bidang perkara, judul penerbitan, institusi berkolaborasi dan negara berkolaborasi bagi Universiti Penyelidikan di Malaysia.

Sumber maklumat yang digunakan dalam menyediakan statistik ini adalah Web of Science (WoS), Scimago dan Sistem e-Repository Penerbitan UKM (e-Rep). Data-data dari Web of Science (WoS) adalah bagi tahun 2001 hingga 2012.

Adalah diharapkan, penerbitan ini dapat membantu penyelidik mengenali senario penerbitan UKM dan Universiti Penyelidikan, di samping dapat digunakan sebagai rujukan bagi merangka strategi ke arah memperkasakan penerbitan UKM dan Malaysia.

Saya merakamkan ucapan setinggi tahniah kepada Bahagian Perkhidmatan Penyelidikan, Perpustakaan Tun Seri Lanang atas usaha menyediakan statistik ini.

Abu Bakar Maidin
Ketua Pustakawan

SENARAI SINGKATAN

Universiti Penyelidikan (UP)	Singkatan
Universiti Kebangsaan Malaysia	UKM
Universiti Malaya	UM
Universiti Sains Malaysia	USM
Universiti Putra Malaysia	UPM
Universiti Teknologi Malaysia	UTM

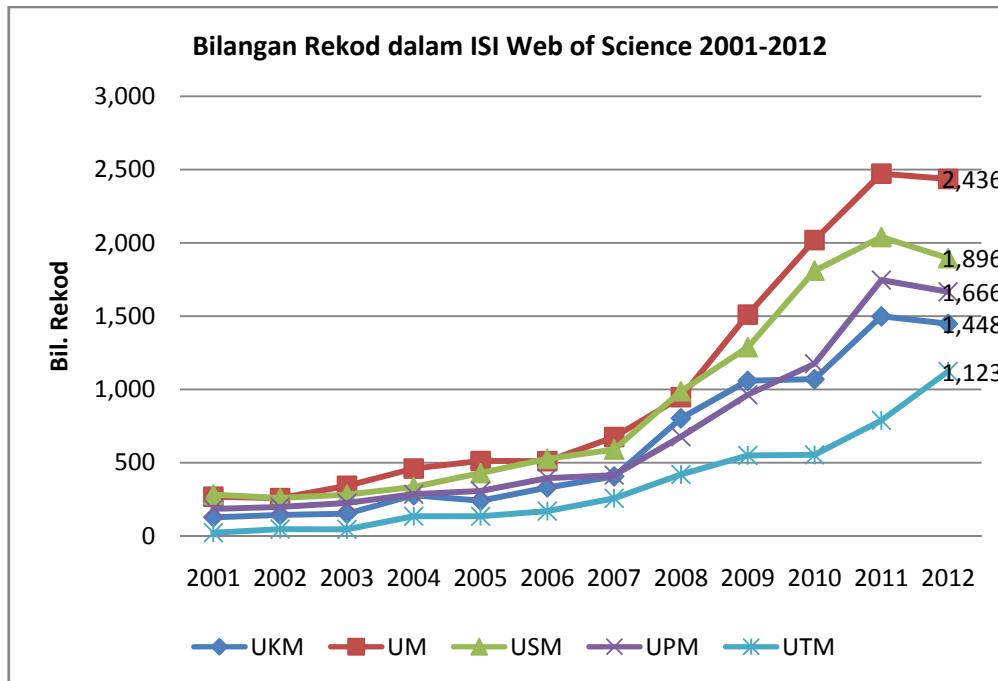
SUMBER DATA

Data dikumpulkan pada April 2013

Pangkalan Data
ISI Web of Science (WoS)
Scimago Journal & Country Rank
SCImago Institutions Rankings
Sistem e-Repositori UKM

1. **Bilangan Rekod dalam ISI Web of Science 2001-2012**

Tahun/ UP	UKM	UM	USM	UPM	UTM
2001	128	268	282	185	23
2002	144	258	259	198	47
2003	153	342	282	225	46
2004	278	460	334	285	135
2005	241	512	429	307	135
2006	331	510	526	395	170
2007	407	675	590	415	258
2008	803	947	987	677	420
2009	1,059	1,510	1,288	963	550
2010	1,070	2,019	1,810	1,175	554
2011	1,499	2,472	2,040	1,746	789
2012	1,448	2,436	1,896	1,666	1,123
Jumlah	7,561	12,409	10,723	8,237	4,250

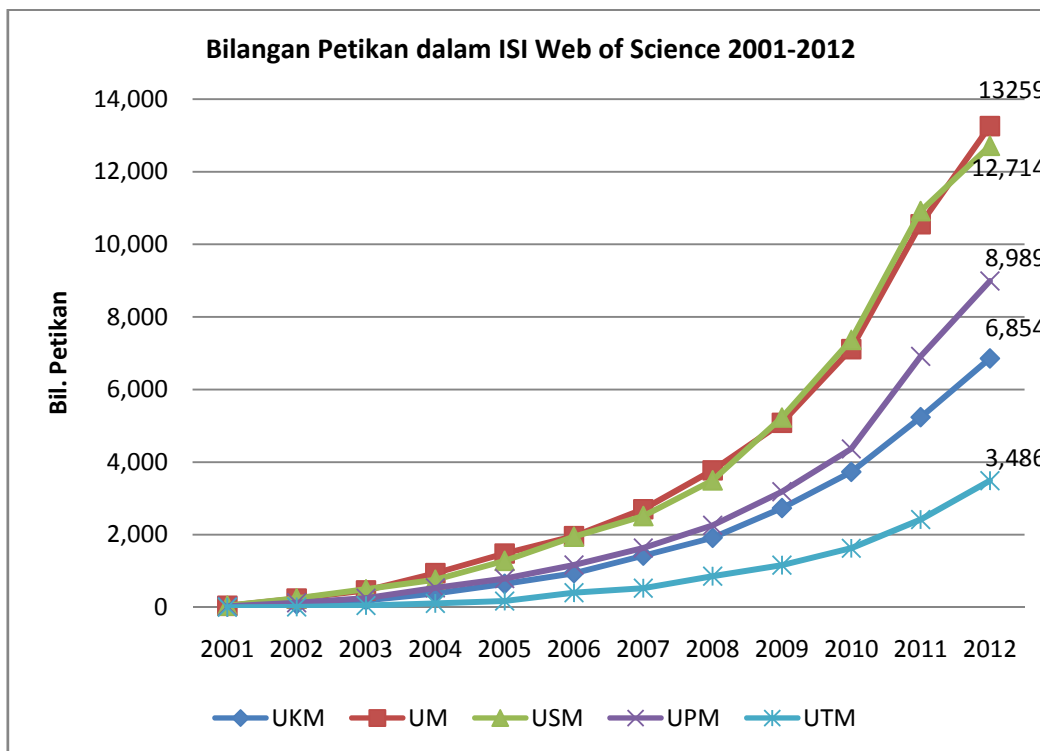


Rajah di atas menunjukkan peningkatan bilangan rekod dalam ISI WoS bagi universiti penyelidikan dalam tempoh 12 tahun bermula 2001-2011. Data bagi tahun 2012 masih lagi dalam peningkatan sepanjang tahun 2013.

2. Bilangan Petikan dalam ISI Web of Science

2.1 Bilangan Petikan dalam ISI Web of Science 2001-2012

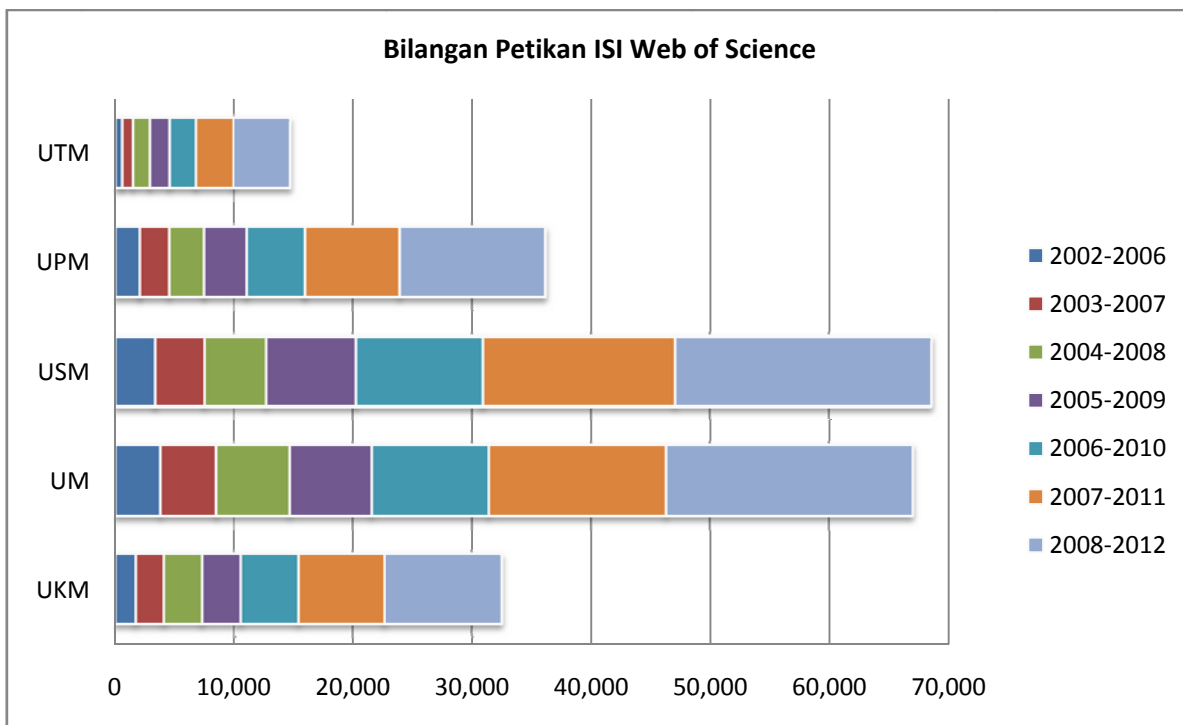
Tahun/ UP	UKM	UM	USM	UPM	UTM
2001	15	39	45	25	1
2002	84	238	247	124	11
2003	192	464	497	249	48
2004	380	938	760	532	107
2005	644	1,480	1,280	787	171
2006	936	1,959	1,946	1,163	403
2007	1,420	2,701	2,515	1,629	527
2008	1,913	3,772	3,497	2,256	856
2009	2,730	5,082	5,227	3,182	1,160
2010	3,727	7,113	7,366	4,362	1,625
2011	5,234	10,553	10,915	6,912	2,416
2012	6,854	13,259	12,714	8,989	3,486
Jumlah	24,129	47,598	47,009	30,210	10,811



Rajah di atas menunjukkan bilangan petikan yang terima oleh Universiti Penyelidikan berdasarkan penerbitan yang diterbitkan bagi tahun 2001-2012.

2.2 Bilangan Petikan dalam ISI Web of Science bagi tempoh 5 tahun penerbitan

Tahun/ UP	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
UKM	1,731	2,361	3,221	3,292	4,849	7,223	9,840
UM	3,793	4,669	6,254	6,876	9,811	14,891	20,589
USM	3,360	4,143	5,239	7,528	10,645	16,134	21,451
UPM	2,073	2,465	2,918	3,649	4,892	7,973	12,179
UTM	592	907	1,422	1,645	2,212	3,173	4,810

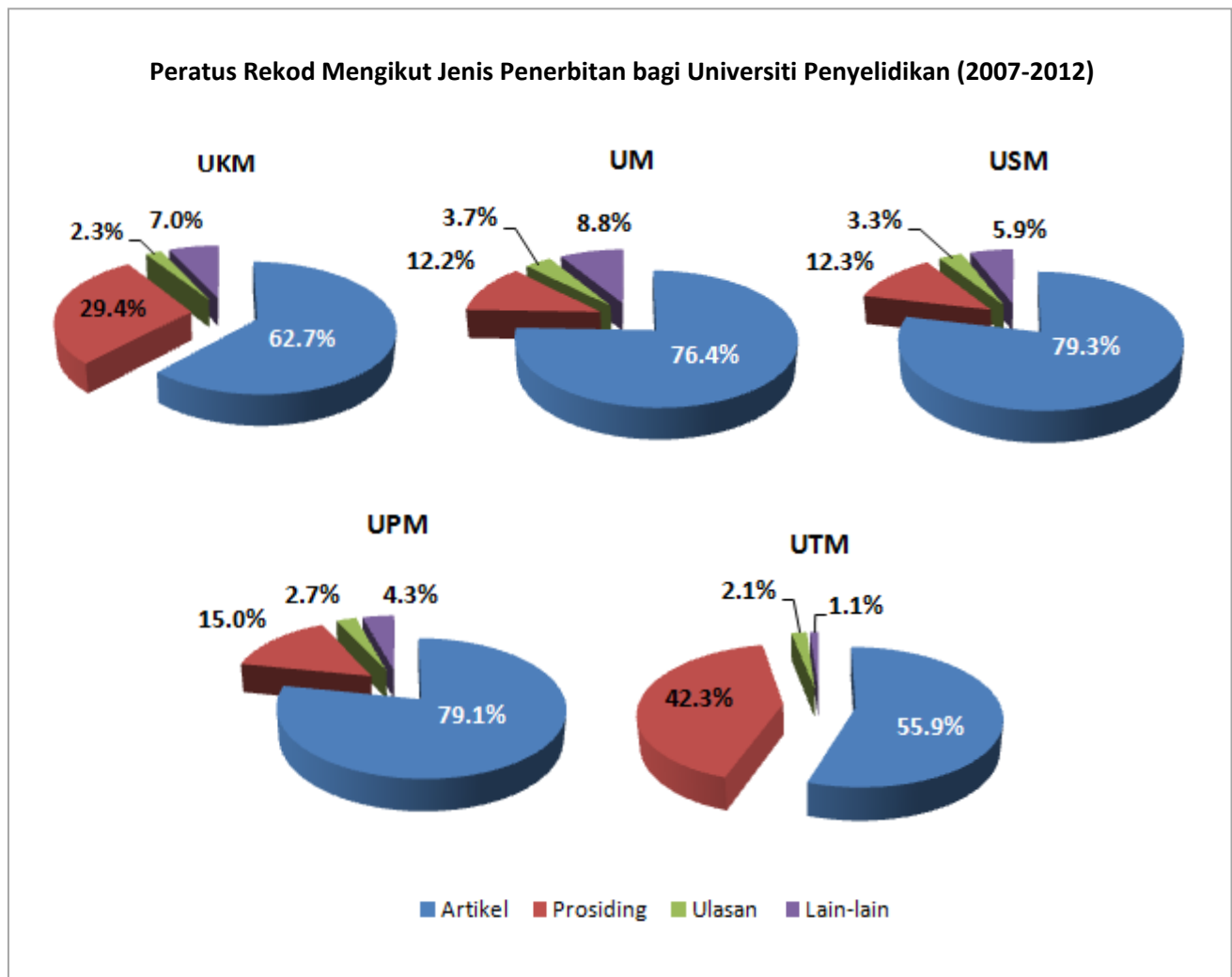


Data 5 tahun seperti yang digunakan oleh Times Higher Education (THE) dan QS World University Rankings

3. Jenis Penerbitan dalam ISI Web of Science (2007-2012)

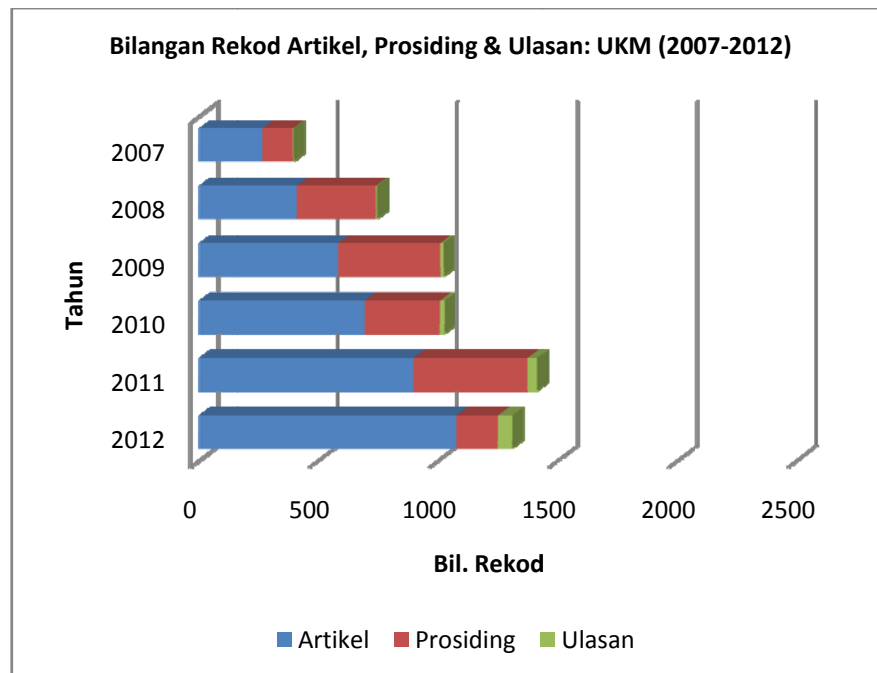
3.1 Bilangan Rekod Mengikut Jenis Penerbitan bagi Universiti Penyelidikan

Jenis Penerbitan/ UP	UKM		UM		USM		UPM		UTM	
	Bil.	%	Bil.	%	Bil.	%	Bil.	%	Bil.	%
<i>Article</i>	3,939	62.7	7,683	76.4	6,830	79.3	5,252	79.1	2,066	55.9
<i>Proceedings Paper</i>	1,846	29.4	1,224	12.2	1,059	12.3	998	15.0	1,561	42.3
<i>Review</i>	142	2.3	377	3.7	284	3.3	180	2.7	76	2.1
<i>Meeting Abstract</i>	264	4.2	573	5.7	368	4.3	220	3.3	10	0.3
<i>Letter</i>	120	1.9	109	1.1	60	0.7	23	0.3	2	0.1
<i>Editorial Material</i>	42	0.7	127	1.3	49	0.6	29	0.4	25	0.7
<i>Correction</i>	7	0.1	20	0.2	27	0.3	10	0.2	3	0.1
<i>Book Review</i>	7	0.1	61	0.6	6	0.1	5	0.1	0	0.0



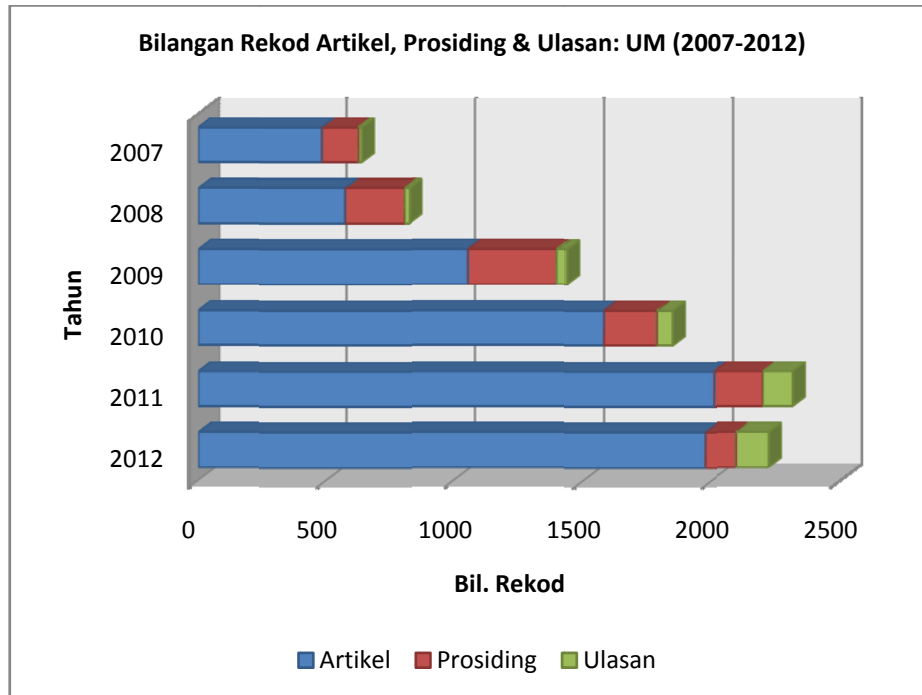
3.2 Bilangan Rekod dan Peratus Artikel, Prosiding & Ulasan: UKM

Tahun	Artikel		Prosiding		Ulasan	
	Bil	%	Bil	%	Bil	%
2012	1078	74.4	173	11.9	60	4.1
2011	900	60.0	476	31.8	40	2.7
2010	695	65.0	313	29.3	20	1.9
2009	584	55.1	428	40.4	14	1.3
2008	413	51.4	329	41.0	5	0.6
2007	269	66.1	127	31.2	3	0.7
Jumlah	3939	62.7	1846	29.4	142	2.3



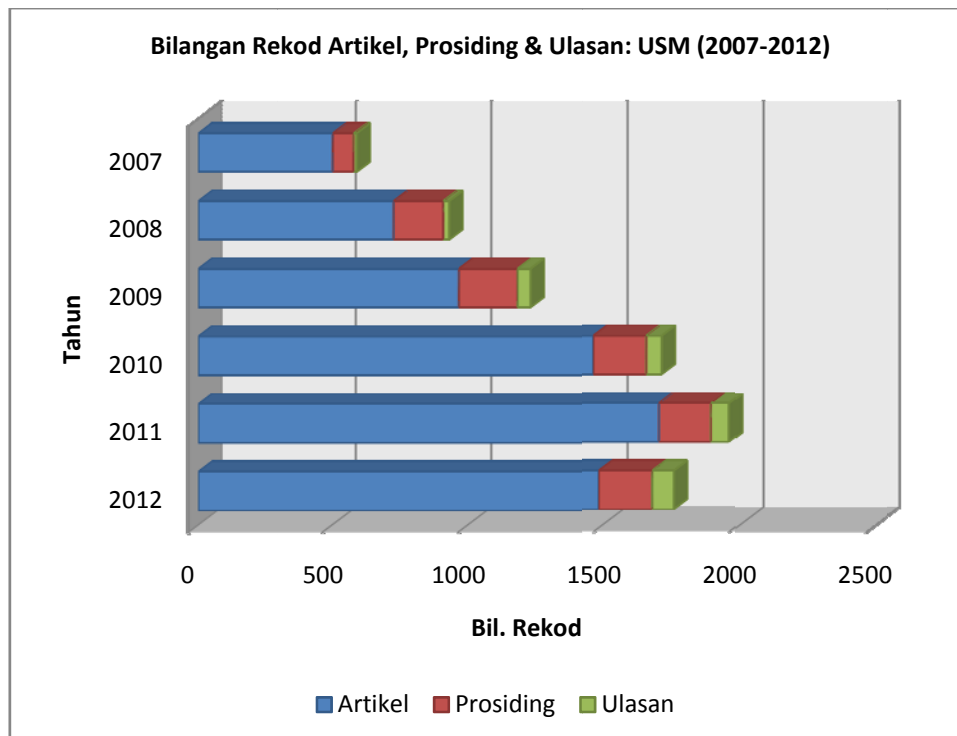
3.3 Bilangan Rekod dan Peratus Artikel, Prosiding & Ulasan: UM

Tahun	Artikel		Prosiding		Ulasan	
	Bil	%	Bil	%	Bil	%
2012	1976	81.1	116	4.8	128	5.25
2011	2010	81.3	187	7.6	116	4.69
2010	1581	78.3	205	10.2	62	3.07
2009	1054	69.8	345	22.8	38	2.52
2008	576	60.8	230	24.3	20	2.11
2007	486	72.0	141	20.9	13	1.93
Jumlah	7683	76.4	1224	12.2	377	3.7



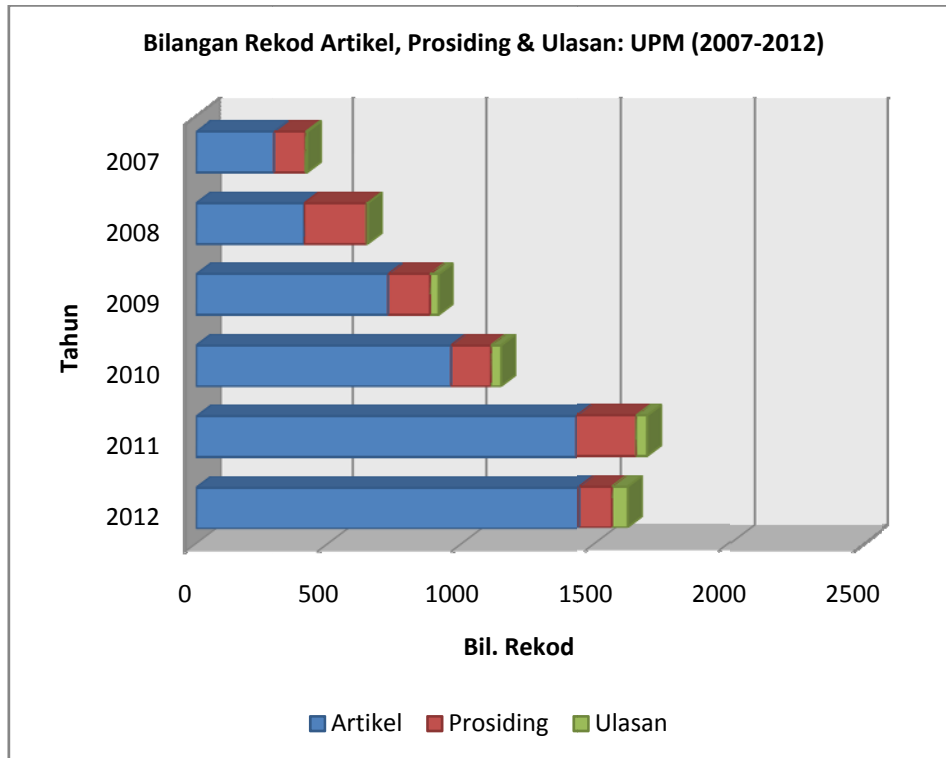
3.4 Bilangan Rekod dan Peratus Artikel, Prosiding & Ulasan: USM

Tahun	Artikel		Prosiding		Ulasan	
	Bil	%	Bil	%	Bil	%
2012	1479	78.0	197	10.4	80	4.2
2011	1701	83.4	191	9.4	66	3.2
2010	1459	80.6	195	10.8	57	3.1
2009	966	75.0	216	16.8	48	3.7
2008	724	73.4	184	18.6	22	2.2
2007	501	84.9	76	12.9	11	1.9
Jumlah	6830	79.3	1059	12.3	284	3.3



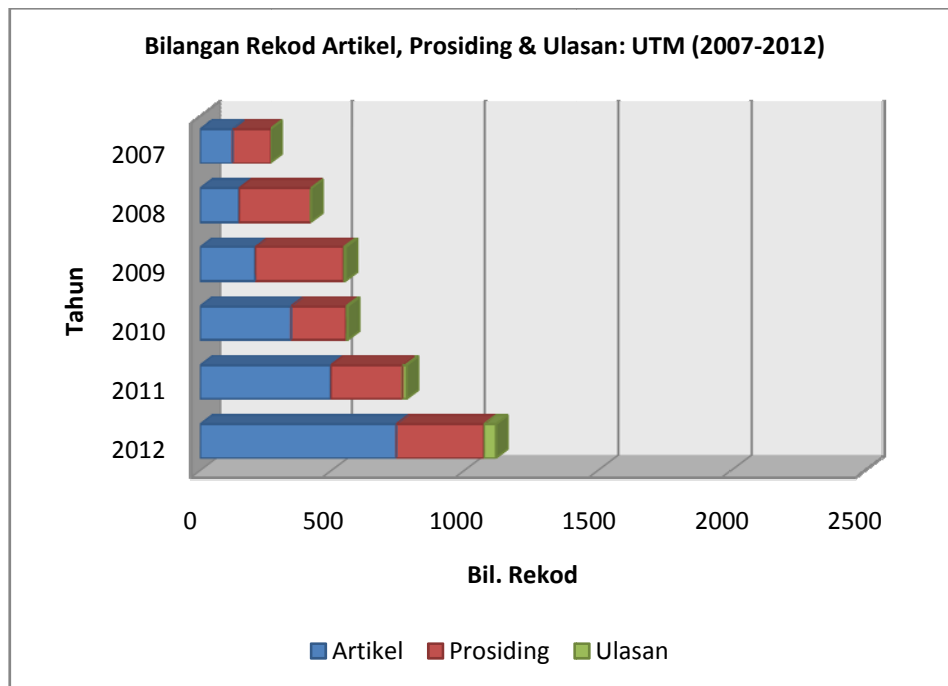
3.5 Bilangan Rekod dan Peratus Artikel, Prosiding & Ulasan: UPM

Tahun	Artikel		Prosiding		Ulasan	
	Bil	%	Bil	%	Bil	%
2012	1436	86.2	122	7.3	59	3.5
2011	1427	81.7	221	12.7	41	2.3
2010	959	81.6	149	12.7	38	3.2
2009	722	75.0	158	16.4	32	3.3
2008	410	60.6	231	34.1	5	0.7
2007	298	71.8	117	28.2	5	1.2
Jumlah	5252	79.1	998	15.0	180	2.7



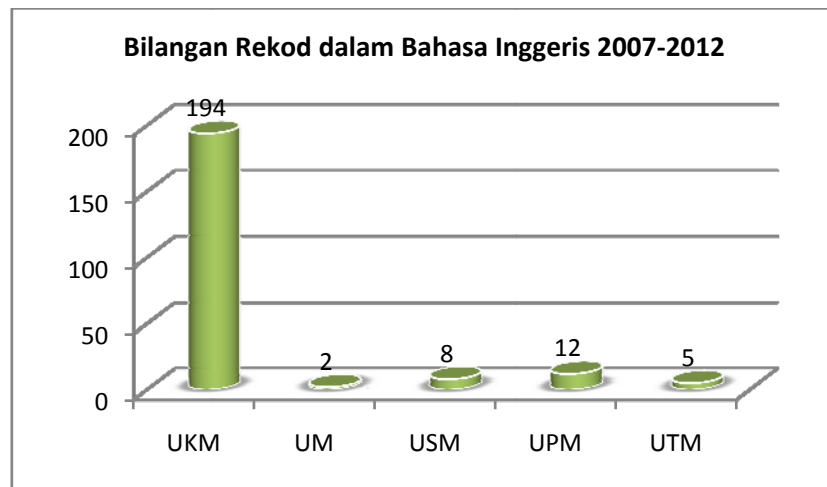
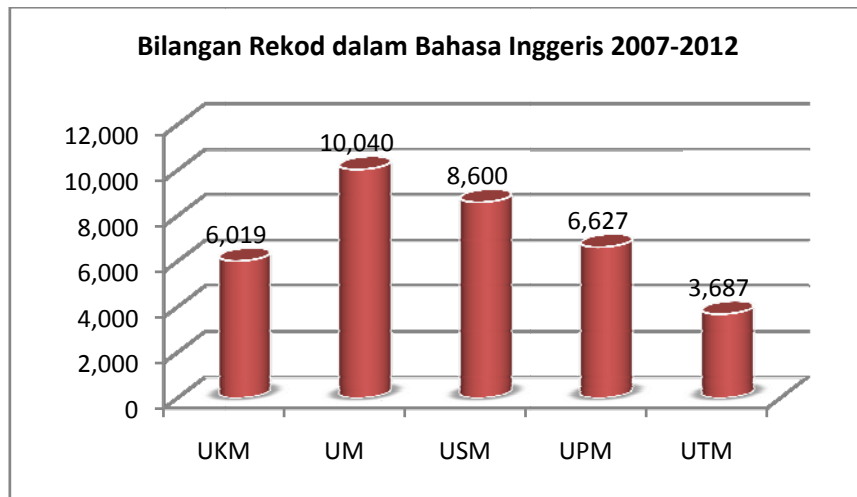
3.6 Bilangan Rekod dan Peratus Artikel, Prosiding & Ulasan: UTM

Tahun	Artikel		Prosiding		Ulasan	
	Bil	%	Bil	%	Bil	%
2012	742	66.1	331	29.5	45	4.0
2011	497	63.0	268	34.0	15	1.9
2010	349	63.0	205	37.0	6	1.1
2009	208	37.8	337	61.3	7	1.3
2008	147	35.0	275	65.5	1	0.2
2007	123	47.7	145	56.2	2	0.8
Jumlah	2066	55.9	1561	42.3	76	2.1



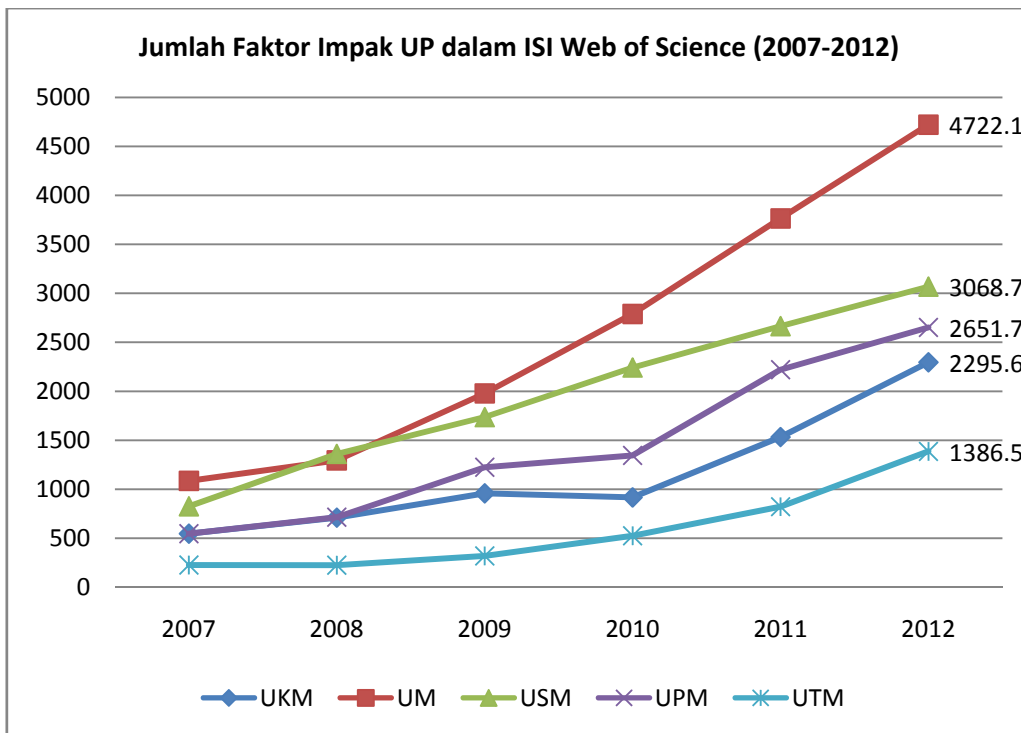
4. **Bilangan Rekod dan Peratus Bahasa Inggeris dan Bahasa Malaysia Universiti Penyelidikan dalam ISI Web of Science (2007-2012)**

UP /Bahasa	Bahasa Inggeris		Bahasa Malaysia	
	Bil	%	Bil	%
UKM	6,019	95.75	194	3.09
UM	10,040	99.81	2	0.02
USM	8,600	99.87	8	0.09
UPM	6,627	99.77	12	0.18
UTM	3,687	99.81	5	0.14



5. Jumlah Faktor Impak Universiti Penyelidikan dalam ISI Web of Science (2007-2012)

Tahun/ UP	2007	2008	2009	2010	2011	2012
UKM	546.29	710.34	958.33	916.49	1532.2	2295.6
UM	1085.3	1294.3	1978.5	2789.6	3764.6	4722.1
USM	825.87	1360.8	1736.7	2242.7	2665.6	3068.7
UPM	546.22	714.4	1224.5	1344.7	2220	2651.7
UTM	225.28	223.61	318.56	524.67	821.68	1386.5



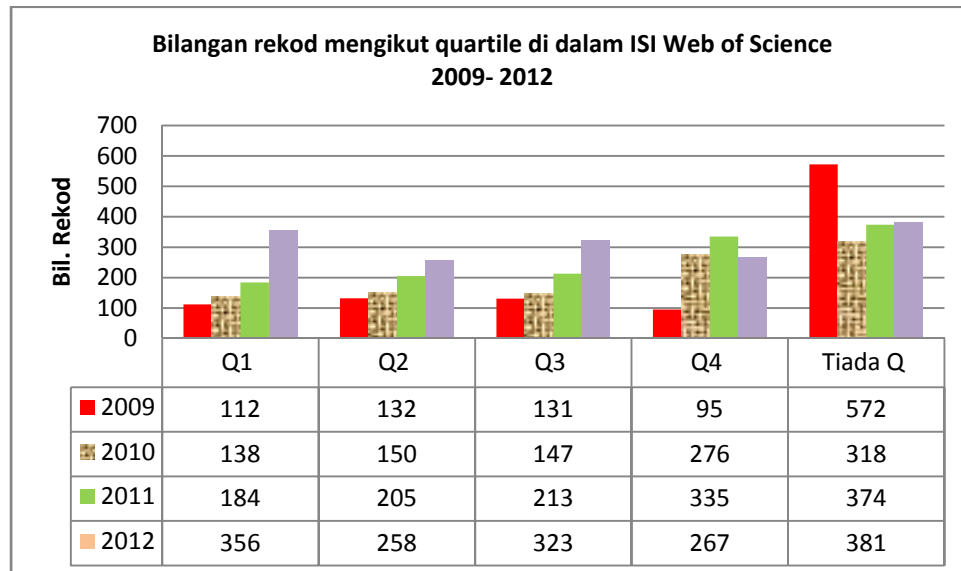
Jumlah Faktor Impak diambil daripada semua jenis penerbitan.

Jumlah Faktor Impak tahun 2007, 2008, 2009, 2011 & 2012 menggunakan JCR versi 2011

Jumlah Faktor Impak tahun 2010 menggunakan JCR versi 2010

6. Bilangan rekod mengikut *quartile* di dalam ISI Web of Science tahun 2009- 2012: UKM

<i>Quartile</i>	2009	2010	2011	2012	% Peningkatan 2011-2012
Q1	112	138	184	356	93.5
Q2	132	150	205	258	25.9
Q3	131	147	213	323	51.6
Q4	95	276	335	267	-20.3
Tiada Q	572	318	374	381	1.9
Jumlah	1042	1029	1311	1585	



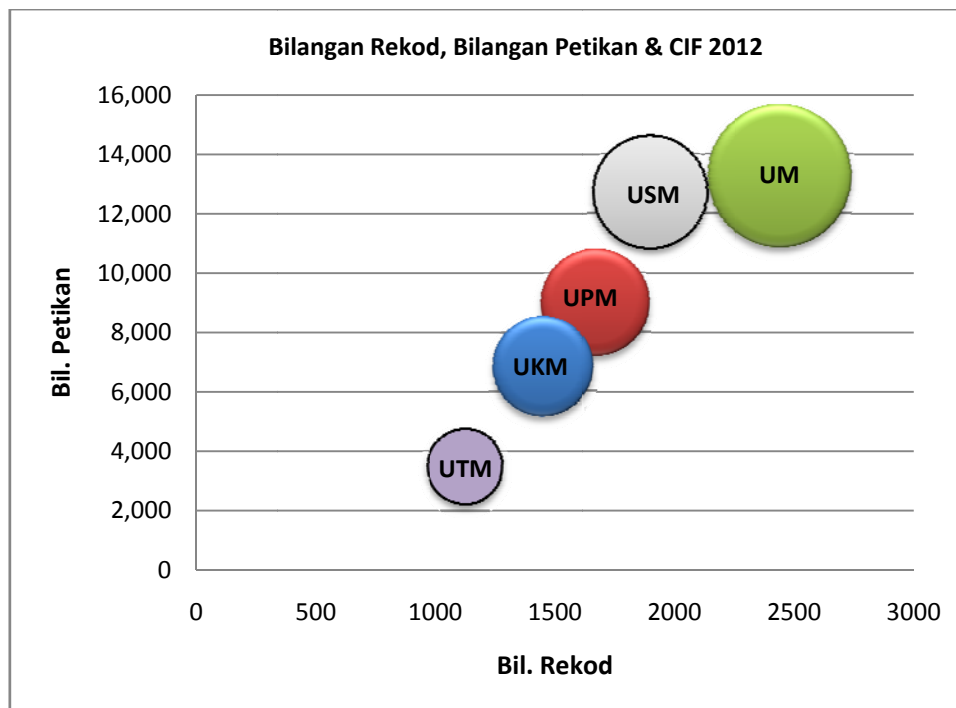
Rajah 5: Bilangan Rekod mengikut *Quartile*

Sumber: eRepositori Penerbitan UKM

7. Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan

7.1 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2012

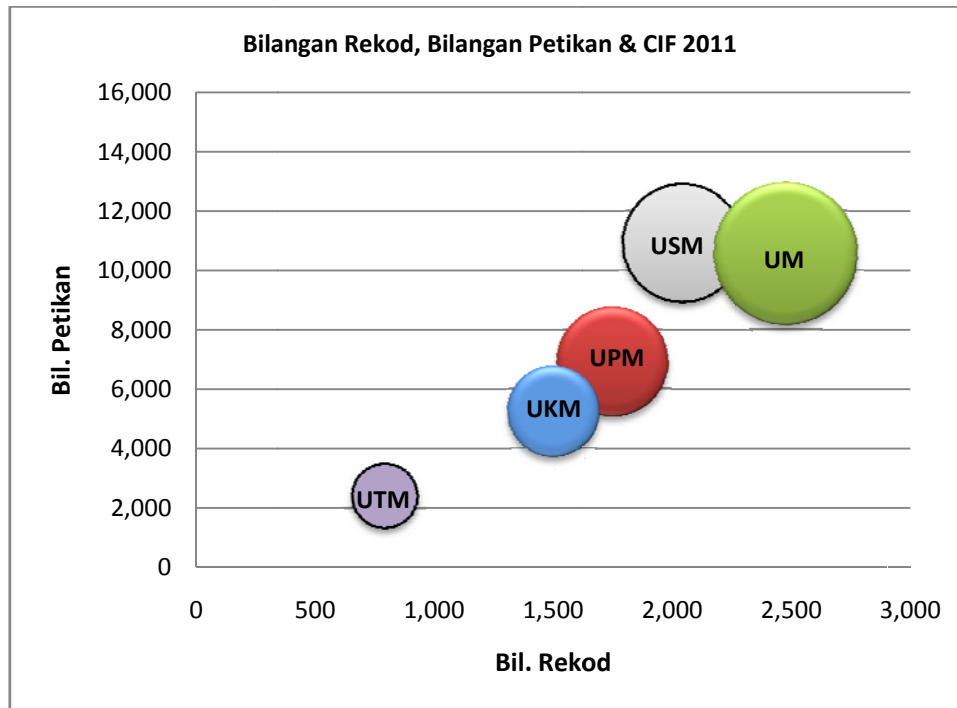
UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	1,448	6,854	2295.646
UM	2,436	13,259	4722.071
USM	1,896	12,714	3068.678
UPM	1,666	8,989	2651.726
UTM	1,123	3,486	1386.522



*Saiz bulatan menggambarkan jumlah faktor impak

7.2 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2011

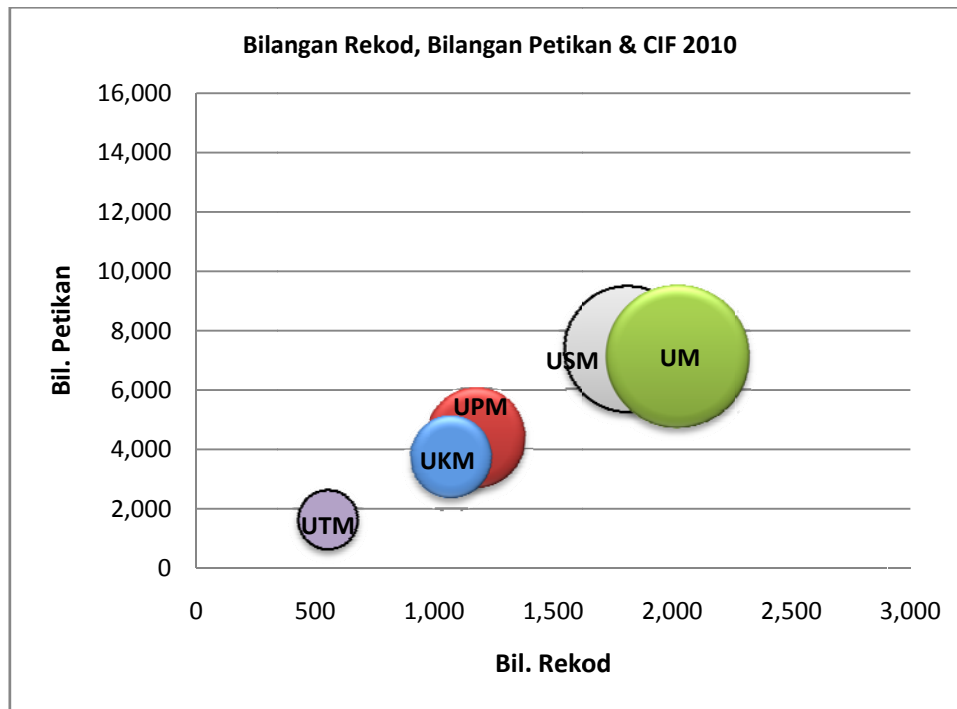
UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	1,499	5,234	1532.2
UM	2,472	10,553	3764.6
USM	2,040	10,915	2665.6
UPM	1,746	6,912	2220
UTM	789	2,416	821.68



*Saiz bulatan menggambarkan jumlah faktor impak

7.3 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2010

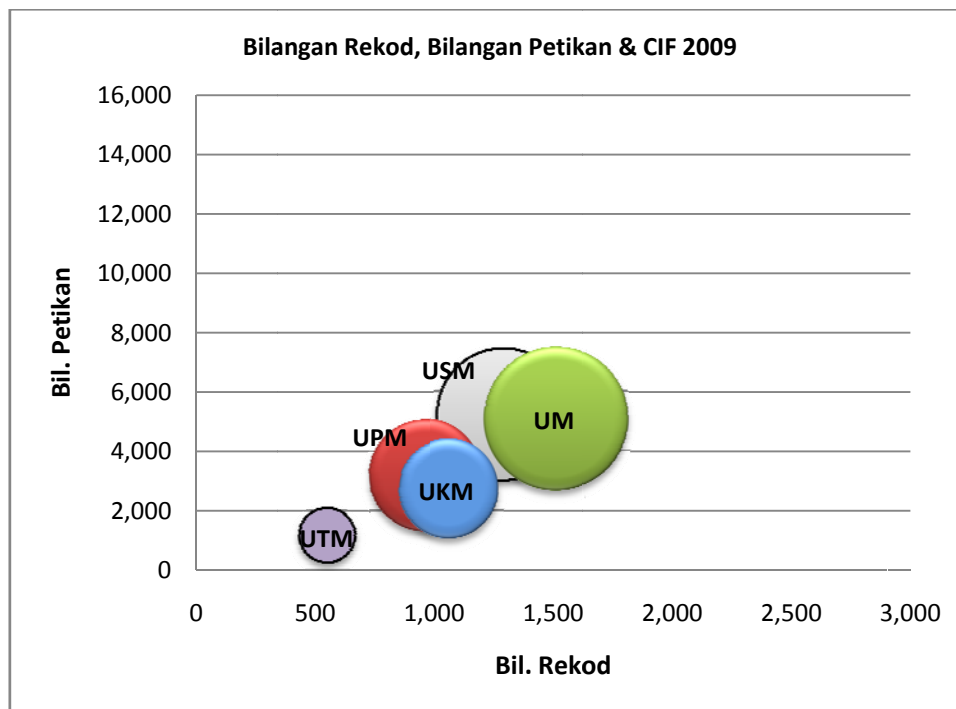
UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	1,070	3,727	916.49
UM	2,019	7,113	2789.6
USM	1,810	7,366	2242.7
UPM	1,175	4,362	1344.7
UTM	554	1,625	524.67



*Saiz bulatan menggambarkan jumlah faktor impak

7.4 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2009

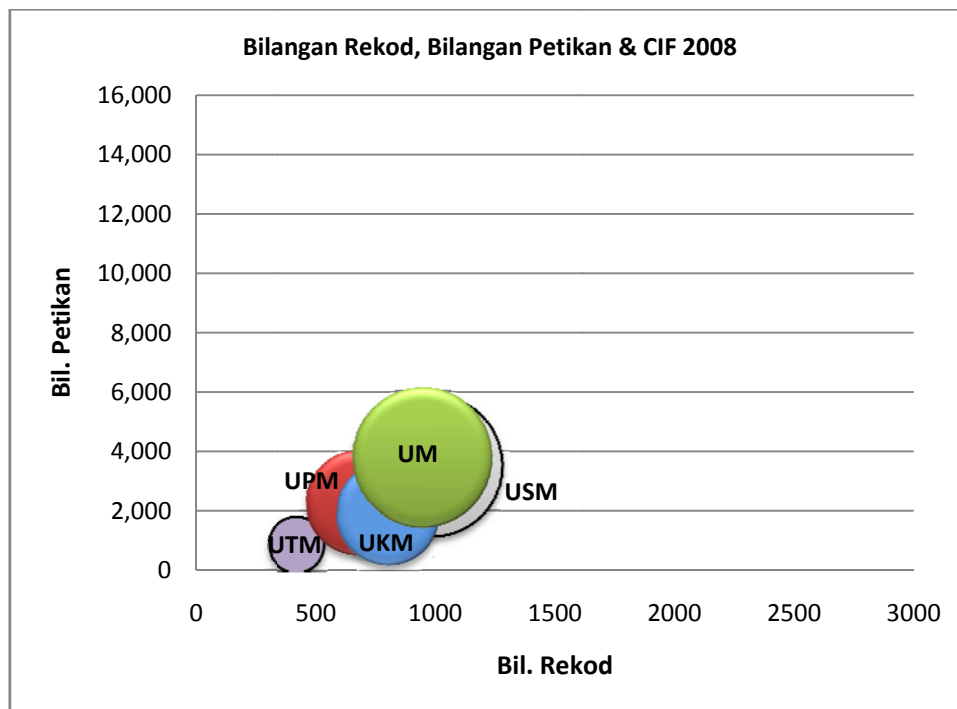
UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	1,059	2,730	958.33
UM	1,510	5,082	1978.5
USM	1,288	5,227	1736.7
UPM	963	3,182	1224.5
UTM	550	1,160	318.56



*Saiz bulatan menggambarkan jumlah faktor impak

7.5 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2008

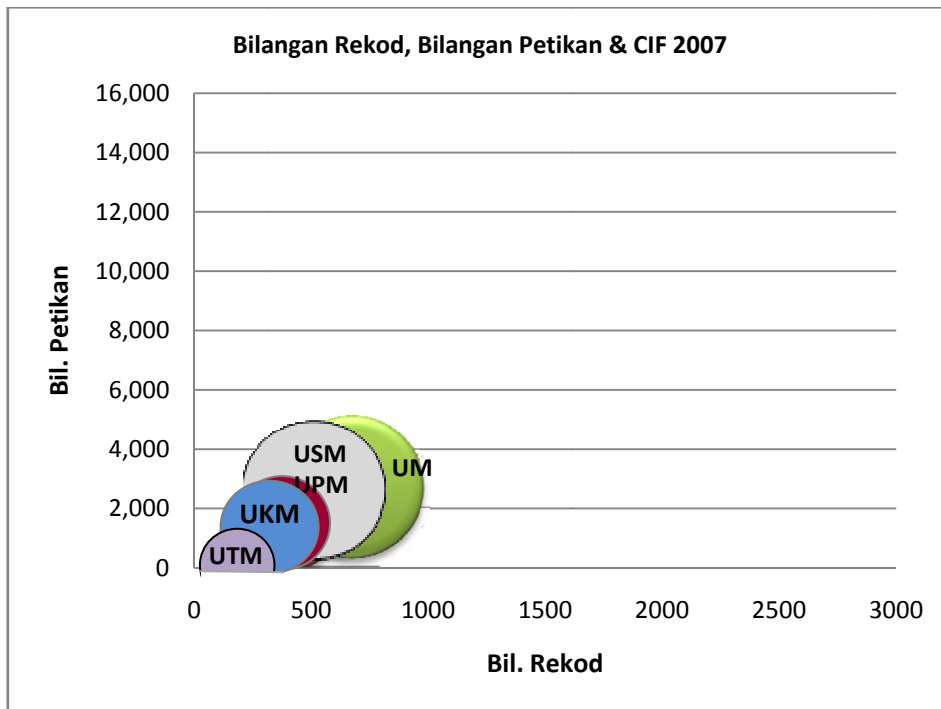
UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	803	1,913	710.34
UM	947	3,772	1294.3
USM	987	3,497	1360.8
UPM	677	2,256	714.4
UTM	420	856	223.61



*Saiz bulatan menggambarkan jumlah faktor impak

7.6 Bilangan Rekod, Bilangan Petikan dan Jumlah Faktor Impak (CIF) Universiti Penyelidikan 2007

UP	Bil. Rekod	Bil. Petikan	*Jumlah Faktor Impak
UKM	407	1,420	546.29
UM	675	2,701	1085.3
USM	590	2,515	825.87
UPM	415	1,629	546.22
UTM	258	527	225.28



*Saiz bulatan menggambarkan jumlah faktor impak

8. Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi Universiti Penyelidikan dalam ISI Web of Science (2007-2012)

8.1 Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi: UKM

No.	Bidang Perkara	Bil. Rekod	Peratus	Carta
1	ENGINEERING	1,468	23.290 %	
2	COMPUTER SCIENCE	749	11.883 %	
3	SCIENCE TECHNOLOGY OTHER TOPICS	662	10.503 %	
4	MATERIALS SCIENCE	596	9.456 %	
5	PHYSICS	462	7.330 %	
6	EDUCATION EDUCATIONAL RESEARCH	366	5.807 %	
7	CHEMISTRY	319	5.061 %	
8	MATHEMATICS	297	4.712 %	
9	TELECOMMUNICATIONS	248	3.935 %	
10	GENERAL INTERNAL MEDICINE	226	3.586 %	
11	ENERGY FUELS	217	3.443 %	
12	PHARMACOLOGY PHARMACY	193	3.062 %	
13	ENVIRONMENTAL SCIENCES ECOLOGY	181	2.872 %	
14	MECHANICS	159	2.523 %	
15	BIOTECHNOLOGY APPLIED MICROBIOLOGY	153	2.427 %	
16	CRYSTALLOGRAPHY	131	2.078 %	
17	BUSINESS ECONOMICS	119	1.888 %	
18	OPTICS	118	1.872 %	
19	ELECTROCHEMISTRY	113	1.793 %	
20	BIOCHEMISTRY MOLECULAR BIOLOGY	111	1.761 %	
21	ONCOLOGY	100	1.587 %	
22	PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	97	1.539 %	
23	FOOD SCIENCE TECHNOLOGY	95	1.507 %	
24	SOCIAL SCIENCES OTHER TOPICS	94	1.491 %	
25	THERMODYNAMICS	86	1.364 %	
26	CONSTRUCTION BUILDING TECHNOLOGY	72	1.142 %	
27	POLYMER SCIENCE	69	1.095 %	
28	NUTRITION DIETETICS	68	1.079 %	
29	ZOOLOGY	66	1.047 %	
30	AUTOMATION CONTROL SYSTEMS	63	1.000 %	

8.2 Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi: UM

No.	Bidang Perkara	Bil. Rekod	Peratus	Carta
1	CRYSTALLOGRAPHY	1,544	15.330 %	■
2	ENGINEERING	1464	14.535 %	■
3	CHEMISTRY	842	8.360 %	■
4	PHYSICS	697	6.920 %	■
5	MATERIALS SCIENCE	596	5.917 %	■
6	COMPUTER SCIENCE	527	5.232 %	■
7	SCIENCE TECHNOLOGY OTHER TOPICS	401	3.981 %	■
8	BUSINESS ECONOMICS	331	3.286 %	■
9	OPTICS	331	3.286 %	■
10	PHARMACOLOGY PHARMACY	318	3.157 %	■
11	ENERGY FUELS	279	2.770 %	■
12	PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	239	2.373 %	■
13	ENVIRONMENTAL SCIENCES ECOLOGY	230	2.284 %	■
14	GENERAL INTERNAL MEDICINE	219	2.174 %	■
15	GASTROENTEROLOGY HEPATOLOGY	216	2.145 %	■
16	INFECTIOUS DISEASES	203	2.015 %	■
17	BIOCHEMISTRY MOLECULAR BIOLOGY	196	1.946 %	■
18	ONCOLOGY	194	1.926 %	■
19	NEUROSCIENCES NEUROLOGY	190	1.886 %	■
20	TROPICAL MEDICINE	185	1.837 %	■
21	MATHEMATICS	178	1.767 %	■
22	BIOTECHNOLOGY APPLIED MICROBIOLOGY	176	1.747 %	■
23	PARASITOLOGY	171	1.698 %	■
24	MICROBIOLOGY	165	1.638 %	■
25	PLANT SCIENCES	147	1.459 %	■
26	EDUCATION EDUCATIONAL RESEARCH	134	1.330 %	■
27	DENTISTRY ORAL SURGERY MEDICINE	125	1.241 %	■
28	IMMUNOLOGY	122	1.211 %	■
29	INFORMATION SCIENCE LIBRARY SCIENCE	121	1.201 %	■
30	TELECOMMUNICATIONS	120	1.191 %	■

8.3 Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi: USM

No.	Bidang Perkara	Bil. Rekod	Peratus	Carta
1	ENGINEERING	1,456	16.893 %	
2	CRYSTALLOGRAPHY	1288	14.944 %	
3	MATERIALS SCIENCE	1138	13.203 %	
4	CHEMISTRY	938	10.883 %	
5	PHYSICS	656	7.611 %	
6	COMPUTER SCIENCE	534	6.196 %	
7	POLYMER SCIENCE	436	5.059 %	
8	PHARMACOLOGY PHARMACY	409	4.745 %	
9	ENVIRONMENTAL SCIENCES ECOLOGY	372	4.316 %	
10	SCIENCE TECHNOLOGY OTHER TOPICS	341	3.956 %	
11	GENERAL INTERNAL MEDICINE	339	3.933 %	
12	FOOD SCIENCE TECHNOLOGY	276	3.202 %	
13	BUSINESS ECONOMICS	252	2.924 %	
14	BIOTECHNOLOGY APPLIED MICROBIOLOGY	250	2.901 %	
15	ENERGY FUELS	232	2.692 %	
16	BIOCHEMISTRY MOLECULAR BIOLOGY	188	2.181 %	
17	OPTICS	180	2.088 %	
18	MATHEMATICS	173	2.007 %	
19	TELECOMMUNICATIONS	172	1.996 %	
20	WATER RESOURCES	157	1.822 %	
21	HEALTH CARE SCIENCES SERVICES	149	1.729 %	
22	AGRICULTURE	148	1.717 %	
23	PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	140	1.624 %	
24	EDUCATION EDUCATIONAL RESEARCH	120	1.392 %	
25	METALLURGY METALLURGICAL ENGINEERING	116	1.346 %	
26	TROPICAL MEDICINE	114	1.323 %	
27	NUTRITION DIETETICS	104	1.207 %	
28	ELECTROCHEMISTRY	103	1.195 %	
29	MECHANICS	82	0.951 %	
30	PLANT SCIENCES	82	0.951 %	

8.4 Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi: UPM

No.	Bidang Perkara	Bil. Rekod	Peratus	Carta
1	ENGINEERING	1,068	15.967 %	■
2	CHEMISTRY	772	11.541 %	■
3	FOOD SCIENCE TECHNOLOGY	646	9.658 %	■
4	MATERIALS SCIENCE	542	8.103 %	■
5	COMPUTER SCIENCE	514	7.684 %	■
6	BIOTECHNOLOGY APPLIED MICROBIOLOGY	492	7.355 %	■
7	AGRICULTURE	418	6.249 %	■
8	SCIENCE TECHNOLOGY OTHER TOPICS	344	5.143 %	■
9	PHYSICS	328	4.904 %	■
10	ENVIRONMENTAL SCIENCES ECOLOGY	304	4.545 %	■
11	PHARMACOLOGY PHARMACY	293	4.380 %	■
12	MATHEMATICS	247	3.693 %	■
13	TELECOMMUNICATIONS	238	3.558 %	■
14	BIOCHEMISTRY MOLECULAR BIOLOGY	212	3.169 %	■
15	PLANT SCIENCES	208	3.110 %	■
16	NUTRITION DIETETICS	178	2.661 %	■
17	BUSINESS ECONOMICS	175	2.616 %	■
18	VETERINARY SCIENCES	170	2.541 %	■
19	MICROBIOLOGY	161	2.407 %	■
20	OPTICS	146	2.183 %	■
21	POLYMER SCIENCE	111	1.659 %	■
22	WATER RESOURCES	103	1.540 %	■
23	ENERGY FUELS	102	1.525 %	■
24	EDUCATION EDUCATIONAL RESEARCH	91	1.360 %	■
25	LIFE SCIENCES BIOMEDICINE OTHER TOPICS	89	1.331 %	■
26	ELECTROCHEMISTRY	85	1.271 %	■
27	PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	83	1.241 %	■
28	FORESTRY	73	1.091 %	■
29	MECHANICS	72	1.076 %	■
30	INSTRUMENTS INSTRUMENTATION	70	1.046 %	■

8.5 Bilangan Rekod dan Peratus 30 Bidang Perkara Tertinggi: UTM

No.	Bidang Perkara	Bil. Rekod	Peratus	Carta
1	ENGINEERING	1,633	44.064 %	
2	COMPUTER SCIENCE	803	21.668 %	
3	PHYSICS	505	13.627 %	
4	MATERIALS SCIENCE	480	12.952 %	
5	CHEMISTRY	304	8.203 %	
6	TELECOMMUNICATIONS	304	8.203 %	
7	SCIENCE TECHNOLOGY OTHER TOPICS	267	7.205 %	
8	ENERGY FUELS	169	4.560 %	
9	BUSINESS ECONOMICS	154	4.155 %	
10	AUTOMATION CONTROL SYSTEMS	149	4.021 %	
11	OPTICS	135	3.643 %	
12	ENVIRONMENTAL SCIENCES ECOLOGY	127	3.427 %	
13	POLYMER SCIENCE	117	3.157 %	
14	MECHANICS	115	3.103 %	
15	BIOTECHNOLOGY APPLIED MICROBIOLOGY	99	2.671 %	
16	WATER RESOURCES	93	2.509 %	
17	INSTRUMENTS INSTRUMENTATION	88	2.375 %	
18	MATHEMATICS	88	2.375 %	
19	CONSTRUCTION BUILDING TECHNOLOGY	74	1.997 %	
20	THERMODYNAMICS	58	1.565 %	
21	BIOCHEMISTRY MOLECULAR BIOLOGY	54	1.457 %	
22	FOOD SCIENCE TECHNOLOGY	48	1.295 %	
23	GEOLOGY	48	1.295 %	
24	OPERATIONS RESEARCH MANAGEMENT SCIENCE	48	1.295 %	
25	PHARMACOLOGY PHARMACY	43	1.160 %	
26	METALLURGY METALLURGICAL ENGINEERING	37	0.998 %	
27	ELECTROCHEMISTRY	36	0.971 %	
28	METEOROLOGY ATMOSPHERIC SCIENCES	34	0.917 %	
29	AGRICULTURE	33	0.890 %	
30	EDUCATION EDUCATIONAL RESEARCH	32	0.863 %	

9. Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi Universiti Penyelidikan dalam ISI Web of Science (2007-2012)

9.1 Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi: UKM

No.	Judul Penerbitan	Bil. Rekod	Peratus	Carta
1	SAINS MALAYSIANA	480	7.615 %	
2	PROCEDIA SOCIAL AND BEHAVIORAL SCIENCES	277	4.395 %	
3	ADVANCED MATERIALS RESEARCH	175	2.776 %	
4	ACTA CRYSTALLOGRAPHICA SECTION E STRUCTURE REPORTS ONLINE	119	1.888 %	
5	KONGRES PENGAJARAN DAN PEMBELAJARAN UKM 2010	98	1.555 %	
6	MATHEMATICS AND COMPUTERS IN SCIENCE AND ENGINEERING	98	1.555 %	
7	AIP CONFERENCE PROCEEDINGS	87	1.380 %	
8	CLINICA TERAPEUTICA	72	1.142 %	
9	ENERGY AND ENVIRONMENTAL ENGINEERING SERIES	72	1.142 %	
10	KEY ENGINEERING MATERIALS	70	1.111 %	
11	LECTURE NOTES IN COMPUTER SCIENCE	66	1.047 %	
12	APPLIED MECHANICS AND MATERIALS	63	1.000 %	
13	2009 INTERNATIONAL CONFERENCE ON ELECTRICAL ENGINEERING AND INFORMATICS VOLS 1 AND 2	58	0.920 %	
14	INTERNATIONAL CONFERENCE ON LEARNER DIVERSITY 2010	56	0.888 %	
15	SINGAPORE MEDICAL JOURNAL	55	0.873 %	
16	3RD WORLD CONFERENCE ON EDUCATIONAL SCIENCES 2011	44	0.698 %	
17	INTERNATIONAL MEDICAL JOURNAL	44	0.698 %	
18	INTERNATIONAL SYMPOSIUM OF INFORMATION TECHNOLOGY 2008 VOLS 1 4 PROCEEDINGS	44	0.698 %	
19	ASIAN PACIFIC JOURNAL OF CANCER PREVENTION	41	0.650 %	
20	AFRICAN JOURNAL OF BIOTECHNOLOGY	39	0.619 %	
21	TROPICAL BIOMEDICINE	39	0.619 %	
22	ZOOTAXA	39	0.619 %	
23	FRACTURE AND STRENGTH OF SOLIDS VII PTS 1 AND 2	38	0.603 %	
24	WORLD CONFERENCE ON LEARNING TEACHING AND ADMINISTRATION PAPERS	36	0.571 %	
25	ICSE 2008 IEEE INTERNATIONAL CONFERENCE ON SEMICONDUCTOR ELECTRONICS PROCEEDINGS	35	0.555 %	
26	2009 INTERNATIONAL CONFERENCE ON SPACE SCIENCE AND COMMUNICATION	31	0.492 %	
27	EVIDENCE BASED COMPLEMENTARY AND ALTERNATIVE MEDICINE	31	0.492 %	
28	RECENT ADVANCES IN COMPUTER ENGINEERING	31	0.492 %	
29	RENEWABLE SUSTAINABLE ENERGY REVIEWS	30	0.476 %	
30	INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE	28	0.444 %	

9.2 Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi: UM

No.	Judul Penerbitan	Bil. Rekod	Peratus	Carta
1	ACTA CRYSTALLOGRAPHICA SECTION E STRUCTURE REPORTS ONLINE	1,437	14.267 %	
2	AIP CONFERENCE PROCEEDINGS	167	1.658 %	
3	IFMBE PROCEEDINGS	132	1.311 %	
4	JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY	105	1.042 %	
5	AFRICAN JOURNAL OF BUSINESS MANAGEMENT	97	0.963 %	
6	SINGAPORE MEDICAL JOURNAL	94	0.933 %	
7	RENEWABLE SUSTAINABLE ENERGY REVIEWS	83	0.824 %	
8	TROPICAL BIOMEDICINE	74	0.735 %	
9	SAINS MALAYSIANA	72	0.715 %	
10	PLOS ONE	67	0.665 %	
11	INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES	63	0.625 %	
12	MOLECULES	63	0.625 %	
13	ADVANCED MATERIALS RESEARCH	62	0.616 %	
14	ASIAN PACIFIC JOURNAL OF CANCER PREVENTION	62	0.616 %	
15	PROCEDIA SOCIAL AND BEHAVIORAL SCIENCES	58	0.576 %	
16	ASIA PACIFIC JOURNAL OF PUBLIC HEALTH	53	0.526 %	
17	INTERNATIONAL JOURNAL OF THE PHYSICAL SCIENCES	52	0.516 %	
18	2009 INTERNATIONAL CONFERENCE FOR TECHNICAL POSTGRADUATES TECHPOS 2009	50	0.496 %	
19	LASER PHYSICS	50	0.496 %	
20	4TH KUALA LUMPUR INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING 2008 VOLS 1 AND 2	49	0.486 %	
21	MATERIALS RESEARCH INNOVATIONS	45	0.447 %	
22	SCIENTIFIC RESEARCH AND ESSAYS	44	0.437 %	
23	NEUROLOGY ASIA	41	0.407 %	
24	INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE	40	0.397 %	
25	5TH KUALA LUMPUR INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING 2011 BIOMED 2011	38	0.377 %	
26	JOURNAL OF SEXUAL MEDICINE	38	0.377 %	
27	MALAYSIAN JOURNAL OF LIBRARY INFORMATION SCIENCE	37	0.367 %	
28	AFRICAN JOURNAL OF BIOTECHNOLOGY	35	0.347 %	
29	JOURNAL OF BACTERIOLOGY	33	0.328 %	
30	3RD KUALA LUMPUR INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING 2006	32	0.318 %	

9.3 Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi: USM

No.	Judul Penerbitan	Bil. Rekod	Peratus	Carta
1	ACTA CRYSTALLOGRAPHICA SECTION E STRUCTURE REPORTS ONLINE	1,220	14.155 %	
2	AIP CONFERENCE PROCEEDINGS	186	2.158 %	
3	INTERNATIONAL MEDICAL JOURNAL	170	1.972 %	
4	VALUE IN HEALTH	122	1.415 %	
5	POLYMER PLASTICS TECHNOLOGY AND ENGINEERING	99	1.149 %	
6	CHEMICAL ENGINEERING JOURNAL	98	1.137 %	
7	ADVANCED MATERIALS RESEARCH	82	0.951 %	
8	JOURNAL OF HAZARDOUS MATERIALS	79	0.917 %	
9	BIORESOURCE TECHNOLOGY	75	0.870 %	
10	JOURNAL OF APPLIED POLYMER SCIENCE	74	0.859 %	
11	JOURNAL OF ALLOYS AND COMPOUNDS	64	0.743 %	
12	SAINS MALAYSIANA	58	0.673 %	
13	TROPICAL BIOMEDICINE	58	0.673 %	
14	OPTOELECTRONICS AND ADVANCED MATERIALS RAPID COMMUNICATIONS	55	0.638 %	
15	JOURNAL OF REINFORCED PLASTICS AND COMPOSITES	50	0.580 %	
16	PROGRESS OF PHYSICS RESEARCH IN MALAYSIA PERFIK2009	49	0.569 %	
17	PROCEDIA SOCIAL AND BEHAVIORAL SCIENCES	48	0.557 %	
18	BIORESOURCES	47	0.545 %	
19	MOLECULES	45	0.522 %	
20	DESALINATION	43	0.499 %	
21	FOOD CHEMISTRY	42	0.487 %	
22	SINGAPORE MEDICAL JOURNAL	38	0.441 %	
23	ASIAN PACIFIC JOURNAL OF CANCER PREVENTION	36	0.418 %	
24	HEALTHMED	35	0.406 %	
25	MATERIALS DESIGN	35	0.406 %	
26	AFRICAN JOURNAL OF BIOTECHNOLOGY	34	0.394 %	
27	LECTURE NOTES IN COMPUTER SCIENCE	32	0.371 %	
28	COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE	31	0.360 %	
29	JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY	31	0.360 %	
30	RENEWABLE SUSTAINABLE ENERGY REVIEWS	31	0.360 %	

9.4 Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi: UPM

No.	Judul Penerbitan	Bil. Rekod	Peratus	Carta
1	AFRICAN JOURNAL OF BIOTECHNOLOGY	193	2.885 %	
2	JOURNAL OF FOOD AGRICULTURE ENVIRONMENT	116	1.734 %	
3	MOLECULES	98	1.465 %	
4	SAINS MALAYSIANA	98	1.465 %	
5	INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	95	1.420 %	
6	FOOD CHEMISTRY	78	1.166 %	
7	JOURNAL OF ANIMAL AND VETERINARY ADVANCES	73	1.091 %	
8	PROCEDIA SOCIAL AND BEHAVIORAL SCIENCES	66	0.987 %	
9	KEY ENGINEERING MATERIALS	60	0.897 %	
10	AIP CONFERENCE PROCEEDINGS	53	0.792 %	
11	JOURNAL OF MEDICINAL PLANTS RESEARCH	53	0.792 %	
12	AFRICAN JOURNAL OF MICROBIOLOGY RESEARCH	52	0.777 %	
13	COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE	52	0.777 %	
14	ASIAN JOURNAL OF CHEMISTRY	44	0.658 %	
15	COMPOSITE SCIENCE AND TECHNOLOGY PTS 1 AND 2	44	0.658 %	
16	INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE	44	0.658 %	
17	ADVANCED MATERIALS RESEARCH	40	0.598 %	
18	INTERNATIONAL SYMPOSIUM OF INFORMATION TECHNOLOGY 2008 VOLS 1 4 PROCEEDINGS	40	0.598 %	
19	ACTA CRYSTALLOGRAPHICA SECTION E STRUCTURE REPORTS ONLINE	39	0.583 %	
20	IOP CONFERENCE SERIES MATERIALS SCIENCE AND ENGINEERING	39	0.583 %	
21	MATERIALS DESIGN	39	0.583 %	
22	INTERNATIONAL JOURNAL OF AGRICULTURE AND BIOLOGY	35	0.523 %	
23	ANNALS OF NUTRITION AND METABOLISM	34	0.508 %	
24	JOURNAL OF OIL PALM RESEARCH	34	0.508 %	
25	BIORESOURCES	33	0.493 %	
26	JOURNAL OF TROPICAL FOREST SCIENCE	33	0.493 %	
27	AFRICAN JOURNAL OF AGRICULTURAL RESEARCH	32	0.478 %	
28	AUSTRALIAN JOURNAL OF CROP SCIENCE	32	0.478 %	
29	TROPICAL BIOMEDICINE	30	0.448 %	
30	AFRICAN JOURNAL OF BUSINESS MANAGEMENT	29	0.434 %	

9.5 Bilangan Rekod dan Peratus 30 Judul Penerbitan Tertinggi: UTM

No.	Judul Penerbitan	Bil. Rekod	Peratus	Carta
1	AIP CONFERENCE PROCEEDINGS	181	4.884 %	■
2	COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE	86	2.321 %	■
3	PROCEDIA SOCIAL AND BEHAVIORAL SCIENCES	79	2.132 %	■
4	ADVANCED MATERIALS RESEARCH	72	1.943 %	■
5	4TH INTERNATIONAL MEETING OF ADVANCES IN THERMOFLUIDS IMAT 2011 PT 1 AND 2	47	1.268 %	■
6	APPLIED MECHANICS AND MATERIALS	44	1.187 %	■
7	ASIA PACIFIC BUSINESS INNOVATION AND TECHNOLOGY MANAGEMENT SOCIETY	41	1.106 %	■
8	LECTURE NOTES IN COMPUTER SCIENCE	41	1.106 %	■
9	INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL	40	1.079 %	■
10	DESALINATION	37	0.998 %	■
11	IFMBE PROCEEDINGS	36	0.971 %	■
12	2008 IEEE 2ND INTERNATIONAL POWER AND ENERGY CONFERENCE PECON VOLS 1 3	35	0.944 %	■
13	SAINS MALAYSIANA	34	0.917 %	■
14	2008 IEEE INTERNATIONAL RF AND MICROWAVE CONFERENCE PROCEEDINGS	33	0.890 %	■
15	MICROWAVE AND OPTICAL TECHNOLOGY LETTERS	32	0.863 %	■
16	JOURNAL OF MEMBRANE SCIENCE	31	0.836 %	■
17	10TH ASIAN INTERNATIONAL CONFERENCE ON FLUID MACHINERY	29	0.783 %	■
18	2007 ASIA PACIFIC CONFERENCE ON APPLIED ELECTROMAGNETICS PROCEEDINGS	29	0.783 %	■
19	ENABLING SCIENCE AND NANOTECHNOLOGY	27	0.729 %	■
20	INTERNATIONAL SYMPOSIUM OF INFORMATION TECHNOLOGY 2008 VOLS 1 4 PROCEEDINGS	26	0.702 %	■
21	INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING IREE	25	0.675 %	■
22	SEPARATION AND PURIFICATION TECHNOLOGY	24	0.648 %	■
23	2009 THIRD ASIA INTERNATIONAL CONFERENCE ON MODELLING SIMULATION VOLS 1 AND 2	23	0.621 %	■
24	RENEWABLE SUSTAINABLE ENERGY REVIEWS	22	0.594 %	■
25	PROCEDIA ENGINEERING	21	0.567 %	■
26	BIORESOURCE TECHNOLOGY	20	0.540 %	■
27	INTERNATIONAL PROCEEDINGS OF ECONOMICS DEVELOPMENT AND RESEARCH	20	0.540 %	■
28	AFRICAN JOURNAL OF BUSINESS MANAGEMENT	19	0.513 %	■
29	WATER SCIENCE AND TECHNOLOGY	18	0.486 %	■
30	2008 INTERNATIONAL CONFERENCE ON COMPUTER AND COMMUNICATION ENGINEERING VOLS 1 3	17	0.459 %	■

10. Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi Universiti Penyelidikan dalam ISI Web of Science (2007-2012)

10.1 Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi: UKM

No.	Institusi Berkolaborasi	Bil. Rekod	Peratus	Carta
1	UNIVERSITY OF KEBANGSAAN MALAYSIA	6,191	98.223 %	
2	UNIVERSITY OF MALAYA	820	13.010 %	
3	PUTRA UNIVERSITY MALAYSIA	422	6.695 %	
4	UNIVERSITY OF TECHNOLOGY MARA	169	2.681 %	
5	UNIVERSITY OF SAINS MALAYSIA	141	2.237 %	
6	UNIVERSITY OF TECHNOLOGY MALAYSIA	85	1.349 %	
7	INSTITUTE PENYELIDIKAN PERUBATAN	84	1.333 %	
8	UNIV CLUJ	76	1.206 %	
9	UNIVERSITY OF TENAGA NASIONAL	66	1.047 %	
10	UNIVERSITY OF MALAYSIA TERENGGANU	49	0.777 %	
11	MULTIMEDIA UNIVERSITY	48	0.762 %	
12	MONASH UNIVERSITY	46	0.730 %	
13	UNIV KEBANGSAAN MALAYSIA MED CTR	42	0.666 %	
14	AGENSI NUKLEAR MALAYSIA	41	0.650 %	
15	INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA	41	0.650 %	
16	UNIV KEBANGSAAN MALAYSIA	41	0.650 %	
17	UNIVERSITY OF BABES BOLYAI	40	0.635 %	
18	UNIVERSITY OF LONDON	40	0.635 %	
19	INT ISLAMIC UNIV MALAYSIA	39	0.619 %	
20	UNIVERSITY OF PERUBATAN ANTARABANGSA	38	0.603 %	
21	ISLAMIC AZAD UNIV	36	0.571 %	
22	MALAYSIAN PALM OIL BOARD	35	0.555 %	
23	MONASH UNIVERSITY SUNWAY	34	0.539 %	
24	UNIVERSITY OF NOTTINGHAM MALAYSIA	34	0.539 %	
25	UNIVERSITY OF TUN HUSSEIN ONN MALAYSIA	32	0.508 %	
26	HOSP KUALA LUMPUR	31	0.492 %	
27	UNIVERSITY OF MALAYSIA SARAWAK	31	0.492 %	
28	UNIVERSITY OF MALAYSIA SABAH	30	0.476 %	
29	NATIONAL UNIVERSITY OF SINGAPORE	29	0.460 %	
30	KYOTO UNIVERSITY	27	0.428 %	

10.2 Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi: UM

No.	Institusi Berkolaborasi	Bil. Rekod	Peratus	Carta
1	UNIVERSITY OF MALAYA	10,022	99.504 %	
2	UNIVERSITY OF KEBANGSAAN MALAYSIA	536	5.322 %	
3	PUTRA UNIVERSITY MALAYSIA	331	3.286 %	
4	KING ABDULAZIZ UNIVERSITY	220	2.184 %	
5	UNIVERSITY OF TECHNOLOGY MARA	218	2.164 %	
6	NATIONAL UNIVERSITY OF SINGAPORE	209	2.075 %	
7	UNIVERSITY OF SAINS MALAYSIA	188	1.867 %	
8	MONASH UNIVERSITY	164	1.628 %	
9	UNIVERSITY OF LONDON	157	1.559 %	
10	MULTIMEDIA UNIVERSITY	125	1.241 %	
11	MONASH UNIVERSITY SUNWAY	120	1.191 %	
12	UNIVERSITY COLLEGE LONDON	115	1.142 %	
13	IMPERIAL COLLEGE LONDON	113	1.122 %	
14	UNIVERSITY OF OXFORD	103	1.023 %	
15	INSTITUTE PENYELIDIKAN PERUBATAN	101	1.003 %	
16	UNIVERSITY OF TUNKU ABDUL RAHMAN	92	0.913 %	
17	MAX PLANCK SOCIETY	91	0.903 %	
18	UNIVERSITY OF GLASGOW	91	0.903 %	
19	UNIVERSITY OF TOKYO	91	0.903 %	
20	UNIV MOHAMMED V AGDAL	88	0.874 %	
21	UNIVERSITY OF TORONTO	87	0.864 %	
22	AL QASSEEM UNIVERSITY	85	0.844 %	
23	UNIVERSITY OF PERUBATAN ANTARABANGSA	84	0.834 %	
24	UNIVERSITY OF TECHNOLOGY MALAYSIA	84	0.834 %	
25	ISLAMIC AZAD UNIV	83	0.824 %	
26	OHIO STATE UNIVERSITY	83	0.824 %	
27	UNIVERSITY OF BRISTOL	82	0.814 %	
28	COLUMBIA UNIVERSITY	81	0.804 %	
29	MAHIDOL UNIVERSITY	81	0.804 %	
30	KYUNGPOOK NATIONAL UNIVERSITY	80	0.794 %	

10.3 Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi: USM

No.	Institusi Berkolaborasi	Bil. Rekod	Peratus	Carta
1	UNIVERSITY OF SAINS MALAYSIA	8,511	98.747 %	
2	PRINCE SONGKLA UNIVERSITY	283	3.283 %	
3	MANGALORE UNIV	219	2.541 %	
4	UNIVERSITY OF MALAYA	202	2.344 %	
5	UNIVERSITY OF KEBANGSAAN MALAYSIA	160	1.856 %	
6	PUTRA UNIVERSITY MALAYSIA	153	1.775 %	
7	UNIVERSITY OF TECHNOLOGY MARA	127	1.473 %	
8	NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA	93	1.079 %	
9	MONASH UNIVERSITY	84	0.975 %	
10	UNIVERSITY OF MALAYSIA PERLIS	84	0.975 %	
11	MONASH UNIVERSITY SUNWAY	65	0.754 %	
12	UNIVERSITY OF TECHNOLOGY MALAYSIA	65	0.754 %	
13	AIMST UNIVERSITY	63	0.731 %	
14	BENGAL ENGN SCI UNIV	60	0.696 %	
15	AL QASSEEM UNIVERSITY	57	0.661 %	
16	KING SAUD UNIVERSITY	56	0.650 %	
17	VIT UNIV	56	0.650 %	
18	MULTIMEDIA UNIVERSITY	53	0.615 %	
19	NANJING UNIVERSITY	51	0.592 %	
20	UNIVERSITY OF TUNKU ABDUL RAHMAN	49	0.569 %	
21	INT ISLAMIC UNIV MALAYSIA	44	0.511 %	
22	UNIVERSITY COLLEGE CORK	43	0.499 %	
23	NANYANG TECHNOLOGICAL UNIVERSITY	41	0.476 %	
24	PENANG GEN HOSP	39	0.452 %	
25	UNIVERSITY OF MALAYSIA SARAWAK	39	0.452 %	
26	PETRONAS UNIVERSITY OF TECHNOLOGY	38	0.441 %	
27	ANNA UNIVERSITY	37	0.429 %	
28	ANNA UNIVERSITY CHENNAI	37	0.429 %	
29	ISLAMIC AZAD UNIV	36	0.418 %	
30	KARUNYA UNIV	36	0.418 %	

10.4 Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi: UPM



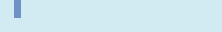

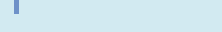
















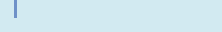

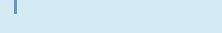






No.	Institusi Berkolaborasi	Bil. Rekod	Peratus	Carta
1	PUTRA UNIVERSITY MALAYSIA	6,532	97.653 %	
2	UNIVERSITY OF KEBANGSAAN MALAYSIA	439	6.563 %	
3	UNIVERSITY OF MALAYA	372	5.561 %	
4	ISLAMIC AZAD UNIV	180	2.691 %	
5	UNIVERSITY OF SAINS MALAYSIA	156	2.332 %	
6	UNIVERSITY OF TECHNOLOGY MARA	151	2.257 %	
7	INSTITUTE PENYELIDIKAN DAN KEMAJUAN PERTANIAN	111	1.659 %	
8	MALAYSIAN PALM OIL BOARD	109	1.630 %	
9	MONASH UNIVERSITY	91	1.360 %	
10	UNIVERSITY OF MALAYSIA SABAH	74	1.106 %	
11	INSTITUTE PENYELIDIKAN PERHUTANAN MALAYSIA	65	0.972 %	
12	MONASH UNIVERSITY SUNWAY	64	0.957 %	
13	UNIVERSITY OF TUNKU ABDUL RAHMAN	64	0.957 %	
14	UNIVERSITY OF TECHNOLOGY MALAYSIA	62	0.927 %	
15	AGENSI NUKLEAR MALAYSIA	57	0.852 %	
16	UNIVERSITY OF NOTTINGHAM MALAYSIA	49	0.733 %	
17	INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA	43	0.643 %	
18	AL QASSEEM UNIVERSITY	42	0.628 %	
19	KING SAUD UNIVERSITY	42	0.628 %	
20	SERDANG HOSP	42	0.628 %	
21	UNIVERSITY OF MALAYSIA PERLIS	42	0.628 %	
22	BANGLADESH AGR UNIV	40	0.598 %	
23	INSTITUTE PENYELIDIKAN PERUBATAN	40	0.598 %	
24	KYUSHU INSTITUTE OF TECHNOLOGY	37	0.553 %	
25	MULTIMEDIA UNIVERSITY	36	0.538 %	
26	UNIVERSITY OF TENAGA NASIONAL	36	0.538 %	
27	GADJAH MADA UNIVERSITY	33	0.493 %	
28	TEHRAN UNIVERSITY OF MEDICAL SCIENCES	33	0.493 %	
29	UNIV MALAYSIA PAHANG	32	0.478 %	
30	UNIVERSITY OF MALAYSIA SARAWAK	32	0.478 %	

10.5 Bilangan Rekod dan Peratus 30 Institusi Berkolaborasi Tertinggi: UTM

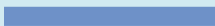

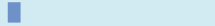

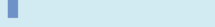












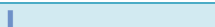

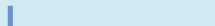

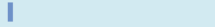

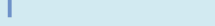






No.	Institusi Berkolaborasi	Bil. Rekod	Peratus	Carta
1	UNIVERSITY OF TECHNOLOGY MALAYSIA	3,543	95.602 %	
2	UNIVERSITY OF KEBANGSAAN MALAYSIA	88	2.375 %	
3	UNIVERSITY OF MALAYA	83	2.240 %	
4	UNIVERSITY OF SAINS MALAYSIA	62	1.673 %	
5	PUTRA UNIVERSITY MALAYSIA	60	1.619 %	
6	UNIV TEKNOLOGI MALAYSIA	52	1.403 %	
7	UNIVERSITY OF OTTAWA	50	1.349 %	
8	UNIVERSITY OF MALAYSIA PERLIS	49	1.322 %	
9	KING MONGKUTS UNIVERSITY OF TECHNOLOGY LADKRABANG	39	1.052 %	
10	UNIVERSITY OF TUNKU ABDUL RAHMAN	38	1.025 %	
11	AGENSI NUKLEAR MALAYSIA	37	0.998 %	
12	UNIVERSITY OF TUN HUSSEIN ONN MALAYSIA	34	0.917 %	
13	UNIV TEKNOLOGI MALAYSIA UTM	33	0.890 %	
14	ISLAMIC AZAD UNIV	30	0.809 %	
15	UNIV MALAYSIA PAHANG	28	0.756 %	
16	UNIVERSITY OF TECHNOLOGY MARA	27	0.729 %	
17	UNIVERSITY OF CAMBRIDGE	23	0.621 %	
18	NATL RES CTR	22	0.594 %	
19	UNIVERSITY OF NEWCASTLE	21	0.567 %	
20	WILKES UNIV	21	0.567 %	
21	MULTIMEDIA UNIVERSITY	17	0.459 %	
22	UNIV TEKNOLOGI MALAYSIA	17	0.459 %	
23	UNIVERSITY OF PORTO	17	0.459 %	
24	IMPERIAL COLLEGE LONDON	16	0.432 %	
25	SIRIM BERHAD	15	0.405 %	
26	UNIVERSITY OF BIRMINGHAM	15	0.405 %	
27	UNIVERSITY OF MALAYSIA TERENGGANU	14	0.378 %	
28	COMSATS INST INFORMATI TEKNOLOGI	13	0.351 %	
29	NAGOYA INSTITUTE OF TECHNOLOGY	13	0.351 %	
30	UNIVERSITY OF MALAYSIA SABAH	13	0.351 %	

11. Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi Universiti Penyelidikan dalam ISI Web of Science (2007-2012)



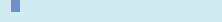






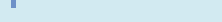




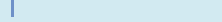

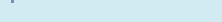




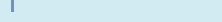








11.1 Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi: UKM

No.	Negara	Bil. Rekod	Peratus	Carta
1	MALAYSIA	6,303	100.000 %	
2	ENGLAND	188	2.983 %	
3	AUSTRALIA	173	2.745 %	
4	USA	132	2.094 %	
5	JAPAN	122	1.936 %	
6	ROMANIA	119	1.888 %	
7	IRAN	112	1.777 %	
8	INDIA	83	1.317 %	
9	PEOPLES R CHINA	82	1.301 %	
10	INDONESIA	65	1.031 %	
11	IRAQ	51	0.809 %	
12	SINGAPORE	49	0.777 %	
13	THAILAND	39	0.619 %	
14	CANADA	38	0.603 %	
15	SAUDI ARABIA	36	0.571 %	
16	NEW ZEALAND	33	0.524 %	
17	PAKISTAN	33	0.524 %	
18	SOUTH KOREA	32	0.508 %	
19	JORDAN	28	0.444 %	
20	SCOTLAND	28	0.444 %	
21	FRANCE	27	0.428 %	
22	BANGLADESH	24	0.381 %	
23	GERMANY	22	0.349 %	
24	TAIWAN	20	0.317 %	
25	NETHERLANDS	19	0.301 %	
26	PHILIPPINES	16	0.254 %	
27	WALES	15	0.238 %	
28	YEMEN	15	0.238 %	
29	AUSTRIA	14	0.222 %	
30	SOUTH AFRICA	14	0.222 %	

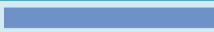

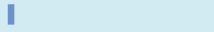


















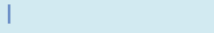








11.2 Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi: UM

No.	Negara	Bil. Rekod	Peratus	Carta
1	MALAYSIA	10,072	100.000 %	
2	PEOPLES R CHINA	615	6.106 %	
3	USA	534	5.302 %	
4	JAPAN	487	4.835 %	
5	ENGLAND	481	4.776 %	
6	AUSTRALIA	479	4.756 %	
7	INDIA	402	3.991 %	
8	SINGAPORE	381	3.783 %	
9	IRAN	314	3.118 %	
10	SAUDI ARABIA	314	3.118 %	
11	SCOTLAND	219	2.174 %	
12	SOUTH KOREA	196	1.946 %	
13	GERMANY	187	1.857 %	
14	THAILAND	180	1.787 %	
15	INDONESIA	169	1.678 %	
16	BRAZIL	162	1.608 %	
17	CANADA	160	1.589 %	
18	ITALY	157	1.559 %	
19	FRANCE	152	1.509 %	
20	PAKISTAN	148	1.469 %	
21	NETHERLANDS	140	1.390 %	
22	TAIWAN	131	1.301 %	
23	SPAIN	115	1.142 %	
24	BELGIUM	111	1.102 %	
25	GREECE	95	0.943 %	
26	MOROCCO	90	0.894 %	
27	POLAND	90	0.894 %	
28	PHILIPPINES	88	0.874 %	
29	BANGLADESH	87	0.864 %	
30	RUSSIA	86	0.854 %	

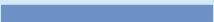





























11.3 Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi: USM

No.	Negara	Bil. Rekod	Peratus	Carta
1	MALAYSIA	8,619	100.000 %	
2	INDIA	748	8.679 %	
3	THAILAND	336	3.898 %	
4	JAPAN	252	2.924 %	
5	USA	247	2.866 %	
6	IRAN	222	2.576 %	
7	AUSTRALIA	169	1.961 %	
8	ENGLAND	154	1.787 %	
9	PEOPLES R CHINA	120	1.392 %	
10	SAUDI ARABIA	112	1.299 %	
11	INDONESIA	102	1.183 %	
12	PAKISTAN	98	1.137 %	
13	IRAQ	80	0.928 %	
14	SINGAPORE	77	0.893 %	
15	CANADA	69	0.801 %	
16	GERMANY	65	0.754 %	
17	FRANCE	62	0.719 %	
18	SOUTH KOREA	60	0.696 %	
19	BANGLADESH	57	0.661 %	
20	IRELAND	52	0.603 %	
21	EGYPT	50	0.580 %	
22	ISRAEL	44	0.511 %	
23	TAIWAN	44	0.511 %	
24	NEW ZEALAND	37	0.429 %	
25	NIGERIA	37	0.429 %	
26	SCOTLAND	30	0.348 %	
27	SUDAN	30	0.348 %	
28	SWITZERLAND	22	0.255 %	
29	ROMANIA	21	0.244 %	
30	SPAIN	21	0.244 %	

11.4 Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi: UPM

No.	Negara	Bil. Rekod	Peratus	Carta
1	MALAYSIA	6,689	100.000 %	
2	IRAN	556	8.312 %	
3	ENGLAND	192	2.870 %	
4	JAPAN	177	2.646 %	
5	USA	151	2.257 %	
6	BANGLADESH	139	2.078 %	
7	AUSTRALIA	135	2.018 %	
8	INDONESIA	122	1.824 %	
9	SAUDI ARABIA	67	1.002 %	
10	INDIA	66	0.987 %	
11	PAKISTAN	66	0.987 %	
12	GERMANY	61	0.912 %	
13	ROMANIA	52	0.777 %	
14	PEOPLES R CHINA	45	0.673 %	
15	SOUTH KOREA	44	0.658 %	
16	NETHERLANDS	43	0.643 %	
17	SUDAN	42	0.628 %	
18	NIGERIA	34	0.508 %	
19	SINGAPORE	34	0.508 %	
20	CANADA	32	0.478 %	
21	YEMEN	32	0.478 %	
22	IRAQ	29	0.434 %	
23	OMAN	29	0.434 %	
24	THAILAND	29	0.434 %	
25	VIETNAM	29	0.434 %	
26	NEW ZEALAND	26	0.389 %	
27	ITALY	25	0.374 %	
28	TURKEY	23	0.344 %	
29	SCOTLAND	22	0.329 %	
30	JORDAN	17	0.254 %	

11.5 Bilangan Rekod dan Peratus 30 Negara Berkolaborasi Tertinggi: UTM

No.	Negara	Bil. Rekod	Peratus	Carta
1	MALAYSIA	3,706	100.000 %	
2	ENGLAND	151	4.074 %	
3	JAPAN	118	3.184 %	
4	IRAN	104	2.806 %	
5	CANADA	80	2.159 %	
6	USA	80	2.159 %	
7	INDONESIA	79	2.132 %	
8	AUSTRALIA	70	1.889 %	
9	PAKISTAN	57	1.538 %	
10	THAILAND	52	1.403 %	
11	SAUDI ARABIA	44	1.187 %	
12	EGYPT	35	0.944 %	
13	YEMEN	30	0.809 %	
14	GERMANY	27	0.729 %	
15	PEOPLES R CHINA	26	0.702 %	
16	PORTUGAL	26	0.702 %	
17	INDIA	25	0.675 %	
18	SINGAPORE	21	0.567 %	
19	SOUTH KOREA	20	0.540 %	
20	BANGLADESH	16	0.432 %	
21	FRANCE	14	0.378 %	
22	TAIWAN	14	0.378 %	
23	SCOTLAND	11	0.297 %	
24	FINLAND	10	0.270 %	
25	ROMANIA	10	0.270 %	
26	SPAIN	10	0.270 %	
27	TURKEY	10	0.270 %	
28	DENMARK	9	0.243 %	
29	NEW ZEALAND	9	0.243 %	
30	SWITZERLAND	9	0.243 %	

12. Penarafan Penerbitan Institusi oleh SCImago 2012 (Susunan Output)

WR	RR	CR	Institution	Country	Region	Sector	Output	IC(%)	Q1(%)	NI
57	15	1	National University of Singapore	SGP	AS	HE	27,089	44.3	60.6	1.6
93	20	2	Nanyang Technological University	SGP	AS	HE	20,015	42.7	48.1	1.4
168	42	1	The University of Hong Kong	HKG	AS	HE	15,460	50.8	59.3	1.5
259	5	2	University of Tehran	IRN	ME	HE	11,535	19.5	25.4	0.8
433	9	2	Hacettepe University	TUR	WE	HE	7,632	16.8	35.4	0.8
480	103	1	Chulalongkorn University	THA	AS	HE	6,880	35.0	37.8	0.9
483	104	1	University of Malaya	MYS	AS	HE	6,755	34.8	21.9	0.7
484	104	2	Science University of Malaysia	MYS	AS	HE	6,754	31.4	23.6	0.8
526	14	1	Cairo University	EGY	ME	HE	6,310	31.0	27.9	0.7
538	116	2	Mahidol University	THA	AS	HE	6,217	42.3	47.7	1.0
541	119	3	Universiti Putra Malaysia	MYS	AS	HE	6,179	24.6	17.4	0.6
566	125	4	National University of Malaysia	MYS	AS	HE	5,911	17.4	15.2	0.7
901	211	5	University of Technology Malaysia	MYS	AS	HE	3,585	27.1	15.3	0.8
1454	388	7	Multimedia University	MYS	AS	HE	1,959	22.0	19.6	0.8
2318	623	1	Bandung Institute of Technology	IDN	AS	HE	993	43.0	22.6	0.7
2545	684	2	University of Indonesia	IDN	AS	HE	846	53.9	36.3	0.7

Data yang dilaporkan oleh SCImago adalah daripada penerbitan tahun 2006-2010

Sumber: SCImago Institutions Rankings, World Report 2012
http://www.scimagoir.com/pdf/sir_2012_world_report.pdf

13. Penarafan Penerbitan Negara oleh Scimago (Susunan Bilangan Dokumen)

No.	Country	Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
1	United States	6,149,455	5,738,593	114,546,415	54,226,872	20.51	1,305
2	China	2,248,278	2,226,529	9,288,789	5,014,506	6	353
3	United Kingdom	1,711,878	1,550,373	27,919,060	6,703,673	18.03	802
4	Japan	1,604,017	1,563,732	18,441,796	5,520,032	12.09	602
5	Germany	1,581,429	1,490,140	23,229,085	6,171,727	16.19	704
6	France	1,141,005	1,073,718	16,068,688	3,749,874	15.58	646
7	Canada	885,197	836,836	13,928,114	2,727,913	18.19	621
8	Italy	851,692	803,004	11,279,167	2,639,721	15	550
9	Spain	665,977	623,236	7,640,544	1,958,835	13.66	448
10	India	634,472	602,868	3,860,494	1,335,686	7.71	281
11	Australia	592,533	551,667	8,180,664	1,770,774	16.65	481
12	Russian Federation	527,442	521,993	2,811,862	837,763	5.49	308
13	South Korea	497,681	487,459	3,988,716	917,147	10.32	309
14	Netherlands	487,784	457,933	8,928,850	1,524,755	20.82	545
15	Brazil	391,589	378,540	2,884,793	965,615	9.96	285
16	Taiwan	351,610	343,223	2,825,736	696,835	10.08	249
17	Switzerland	350,253	329,198	6,873,551	966,536	22.46	537
18	Sweden	337,135	321,725	6,111,804	1,005,775	19.78	484
19	Poland	304,003	297,361	2,149,143	571,333	8.13	281
20	Turkey	267,902	253,876	1,647,043	449,410	7.92	193
21	Belgium	265,913	251,632	4,161,308	630,041	17.81	428
22	Israel	204,262	194,752	3,283,119	483,335	17.35	393
23	Austria	188,440	177,324	2,688,324	387,884	16.51	355
24	Denmark	183,880	173,771	3,444,509	514,632	21.17	399
25	Finland	170,476	165,195	2,771,982	462,377	18.28	352
26	Greece	160,760	152,000	1,589,963	289,460	11.93	247
27	Iran	159,046	154,748	657,186	269,132	8.13	121
28	Mexico	144,997	140,713	1,174,802	259,075	9.83	216
29	Hong Kong	144,935	139,331	1,722,546	262,368	13.52	268
30	Czech Republic	142,090	137,882	1,103,719	272,685	9.14	223
31	Norway	141,143	133,311	2,021,938	339,172	17.19	308
32	Singapore	126,881	122,436	1,330,684	191,033	12.51	240
33	Portugal	117,469	113,411	1,150,280	234,405	12.77	218
34	New Zealand	114,495	107,441	1,504,946	248,529	15.43	264
35	South Africa	107,976	101,434	1,013,102	225,507	11.11	216
36	Argentina	105,216	101,695	1,027,553	230,483	11.11	206

No.	Country	Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
37	Hungary	100,137	96,842	1,058,391	182,169	11.57	239
38	Ukraine	98,083	97,065	398,915	114,365	4.2	132
39	Ireland	91,125	85,341	1,149,729	141,683	16.18	254
40	Romania	76,361	75,381	338,601	85,821	6.31	126
41	Egypt	75,610	73,968	438,912	91,957	7.23	122
42	Malaysia	75,530	73,737	281,619	69,529	7.64	116
43	Thailand	69,637	67,274	528,969	93,304	10.66	156
44	Chile	58,768	56,934	592,148	115,648	13.13	181
45	Slovakia	49,863	48,510	342,191	73,530	7.59	138
46	Croatia	49,462	47,854	260,491	61,644	6.26	132
47	Pakistan	47,443	45,401	197,718	59,213	5.9	101
48	Saudi Arabia	46,167	44,089	241,843	35,926	6.82	114
49	Slovenia	44,142	43,056	345,352	72,636	9.16	141
50	Bulgaria	40,848	40,059	283,100	50,558	7.57	129
51	Nigeria	35,223	34,422	146,295	36,191	5.95	82
52	Tunisia	32,250	30,884	141,848	32,694	6.65	80
53	Colombia	28,817	27,869	189,361	29,917	10.46	122
54	Venezuela	24,266	23,605	182,413	26,964	8.38	123
55	Morocco	23,446	22,480	135,411	25,033	6.82	90
56	Belarus	22,334	22,130	107,046	21,694	4.91	96
57	Cuba	21,879	21,131	107,061	25,243	5.57	86
58	Lithuania	21,098	20,781	129,494	31,431	8.47	102
59	Algeria	21,059	20,770	88,422	17,264	6.34	74
60	Serbia	21,011	20,543	53,270	15,819	3.4	53
61	Jordan	17,126	16,807	90,151	13,333	6.83	72
62	Estonia	16,573	16,218	176,657	34,106	13.21	119
63	Indonesia	16,139	15,779	125,845	13,719	10.85	103
64	Bangladesh	16,074	15,648	97,045	18,846	8.01	89
65	United Arab Emirates	15,698	15,039	83,109	9,530	7.36	81
66	Kenya	14,765	14,054	179,334	30,728	14.51	125
67	Viet Nam	13,172	12,869	107,604	15,364	11.75	101
68	Kuwait	12,254	11,943	80,980	11,653	7.43	77
69	Lebanon	11,672	10,852	82,250	8,564	9.39	91
70	Philippines	11,326	10,979	121,390	13,857	12.95	107

Data bagi tahun 1996-2011

Sumber: SCImago Journal & Country Rank (<http://www.scimagojr.com/countryrank.php>)

GLOSARI

- a. Universiti penyelidikan ialah universiti awam yang telah diiktiraf oleh Jemaah Menteri pada 11 Oktober 2006 untuk menjadi hab kecemerlangan pendidikan dan penyelidikan. Universiti penyelidikan terdiri daripada lima (5) buah universiti awam iaitu Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM) dan Universiti Teknologi Malaysia (UTM) bermula pada 2010.
- b. Web of Science (WoS) – Pangkalan data pengindeksan yang meliputi pelbagai bidang beserta data maklumat petikan. Penerbitan termasuk *article, proceeding paper, letter, review, book review, meeting abstract* dan *editorial material*.
- c. Scimago Journal & Country Rank – Portal yang menyediakan statistik penerbitan pelbagai indikator jurnal dan negara berdasarkan pangkalan data Scopus.
- d. Sistem e-Repository Penerbitan UKM (e-Rep) - Sistem yang dibangunkan pada tahun 2007 berfungsi untuk mengumpul dan menguruskan hasil karya warga kampus UKM.
- e. Petikan – Senarai rujukan atau bibliografi yang dipetik oleh penulis, lazimnya disenaraikan di akhir karya. Istilah lain adalah sebutan dan juga sitasi.
- f. Faktor impak – Nisbah jumlah petikan yang diterima dengan bilangan makalah dalam sesebuah jurnal bagi dua tahun kebelakangan, dilaporkan dalam Journal Citation Report (JCR), terbitan Thomson Reuters.
- g. Jumlah Faktor Impak – Jumlah keseluruhan nilai faktor impak jurnal bagi setiap penerbitan yang dihasilkan oleh institusi
- h. Kuartil (*Quartile*) – Penarafan jurnal bagi sesuatu subjek/bidang dalam Journal Citation Report (JCR). Terdiri daripada Quartile 1 hingga 4.

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Perpustakaan Tun Seri Lanang, UKM
2013**



e- ISBN 978-983-40611-6-6

