

# **Dynamics of ICT Sector in Malaysia**

*by*

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**Seminar on ICT Statistics,  
Seoul, 19-21 July 2010**



<b>Population</b>	<b>: 28.3 million</b>
<b>Total Fertility Rate (TFR)</b>	<b>: 2.2</b>
<b>Per Capita income</b>	<b>: USD7,760 (RM25,866)</b>
<b>Pre-crisis GDP growth</b>	<b>: 5.7 % (2006-2008)</b>
<b>Revised GDP Growth</b>	<b>: 2.0% (2009-2010)</b>
<b>World Competitiveness</b>	<b>: 10<sup>th</sup> position</b>
<b>Unemployment rate</b>	<b>: 3.6 %</b>
<b>Consumer Price Index</b>	<b>: 2.8 %</b>
<b>Literacy</b>	<b>: 93.1%</b>

## About Malaysia

**Formed in 1986**

**1,300 members**

**Commands 80 % of ICT industry**

**PIKOM's Affiliations**



**About PIKOM**

# Partnerships

- **Department of Statistics Malaysia (DOSM)**
  - **Provided the requisite ICT data (2000-2007)**
- **ORBICOM - Network of United Nations Education, Scientific and Cultural Organization (UNESCO) Chairs in Communication**
  - **Provided strategic content planning , financial , administrative and logistic support**

# Objectives

- **Statistical Compilation of ICT Sector and Policy Analysis**
  - **Malaysian Economic Outlook and its Transitions**
  - **ICT Definition, Scope and Coverage**
  - **ICT Sector Data**
  - **ICT as an Enabler of Society & Economy**
- **Challenges & Issues**

## Introduction

### Partnerships and Objectives

GNI Per Capita (USD\$)	1970	2009
Korea	260	21,530
Malaysia	380	6,760

2010 GNI per capita:  
**RM26,420 (USD8,256)**

2009 Household Income:  
**RM4,025 (USD 1,183)**

By 2020 GNI per capita

1995 GNI per capita:  
**RM5406**

1995 Household Income:  
**RM2020**

1980 GNI per capita:  
**RM1820**

1980 Household Income:  
**RM692**

Until mid 90's

Until late 70's

2020 Target:  
**USD21,834**

10<sup>th</sup> MP (2011-2015)  
**USD12,139**

Developed Economy Benchmark:  
**USD14,818**



*Info-structure (ICT), science, R&D, knowledge capital, innovation skills, XY Generations, entrepreneurship and globalization*

**LOW INCOME – FACTOR DRIVEN ECONOMY**

**MIDDLE INCOME – INVESTMENT DRIVEN ECONOMY**

**HIGH INCOME – INNOVATION DRIVEN ECONOMY**

Source: DOSM /10<sup>th</sup> Plan /PIKOM

# New Economy Model: High Income Migration Towards

Liberalization, New  
Economic Model  
and 1Malaysia:  
30<sup>th</sup> June, 2009

(Datuk Seri Najib Razak)

**High Income Drivers**

**High Value Innovation**

**High Value Creativity**

Non-  
ICT  
Enabled

**ICT Enabled**

Non-  
ICT  
Enabled

ICT ubiquitously and pervasively used  
by ALL and for ALL:  
(Business / Government / Consumer)  
B2B, B2C, G2B, G2C, C2C

Source: PIKOM, 2009

**ICT as a Strategy:  
Towards High Income**



	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20
	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devises	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments
ICT Production	30			31		32			33		
	Manufacture of office, accounting and computing machinery			Manufacture of electrical machinery and apparatus n.e.c.		Manufacture of radio, television and communication equipment and apparatus			Manufacture of medical, precision and optical instruments, watches and clocks		
ICT Telecommunications	64201	64202	64203	64209							
	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunications services							
ICT Computer	72100	72200	72300/72400	72500	72900						
	Hardware consultancy services	Software consultancy and supply services	Data processing services / Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities						

## ICT Definition in MSIC 2000: Structure and Scope

### **Publishing Activities (58):**

- Publishing of books, periodicals and other publishing activities (581);
- Software publishing (582)

### **Motion picture, video, television, sound and music productions (59)**

- Motion picture, video and television programme activities (591);
- Sound recording and music publishing (592);

### **Programming and broadcasting activities (60)**

- Radio broadcasting (601);
- Television programming and broadcasting activities (602);

## **INFORMATION AND COMMUNICATION ( Section J, ISIC Rev. 4 )**

### **Information Activities(63)**

- Data processing, hosting and related activities; web portals (631);
- Other information service activities (639)

### **Computer programming, consultancy and related activities (62)**

- Computer programming, consultancy and related activities (620);

### **Telecommunications (61)**

- Wired telecommunication activities (611);
- Wireless telecommunication activities (612);
- Satellite telecommunication activities (613)

Pending implementation  
in 2011

**ICT New Definition :  
MSIC 2008**



VARIABLES	PRODUCTION SECTOR	SERVICES SECTOR		REMARK
	Manufacturing Industries	Computing Services	Telecommunication Services	
Number of establishments	√	√	√	<b>Source:</b> <b>Services Statistics:</b> <b>Information Communications Technology</b>  For computing and tele communication sub-sectors cross-tabulations are available by: <ul style="list-style-type: none"> <li>• Legal status;</li> <li>• Ownership status;</li> <li>• Output size</li> <li>• Employment size;</li> <li>• Asset size;</li> </ul>
Value of gross output	√	√	√	
Cost of input/ intermediate	√	√	√	
Value added	√	√	√	
Number of persons employed by type	√	√	√	
Salaries & wages paid	√	√	√	
Value of assets owned	√	√	√	
Export	√	X	X	Balance of payment and national accounts records – estimated from “other services”.
Import	√	X	X	

Sub-sectors of computing services include : Hardware consultancy, software consultancy & supply , data processing , database, maintenance and repair of office accounting and computing machinery and other computer related activities;  
 • Sub-sector of telecommunications services include: Telephone , television and radio transmission, data communication and other telecommunication services,

## DOSM Publication : ICT Scope

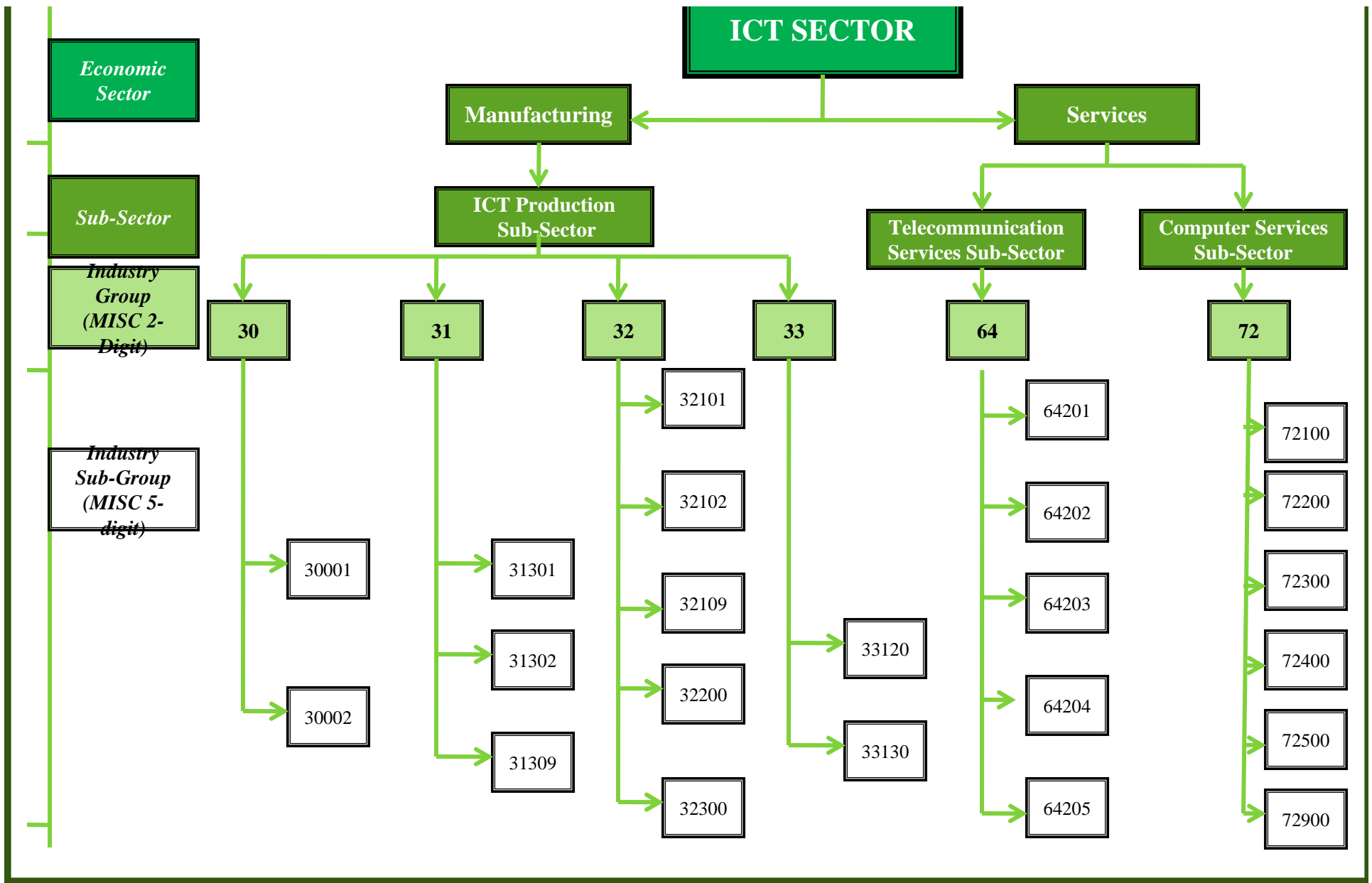
REVENUE		EXPENDITURE	
<b>Computer Services</b>	<b>Telecommunication Services</b>	<b>Computer Services &amp; Telecommunication Services</b>	
● Packaged software	● Telephone services	● Cost of materials used	● Advertising and promotion
● Professional computer services	● Television and radio transmission services	● Value of supplies consumed	● Other services
● Data processing services	● Data communication services	● Utilities	● Postage
● Database activities	● Value of sales of goods and related services	● Cost of goods sold	● Financial charges
● Maintenance and repair of computers	● Rental income	● Payment for current repairs and maintenance on fixed assets	● Insurance premiums except worker's compensation insurance
● Other Services	● Other income	● Research & development	● Rent/ Rental payment
● Value of sales of goods and related services		● IT related services	● Current depreciation on costs
● Rental income		● Telecommunication related services	● Royalties and other indirect taxes
● Other income		● Professional services	● Employment cost : + Salaries & wages + Payment in kind to employees + Gratuity / retirement

Both computer and telecommunication services have similar expenditure variables, while sources of revenue differ

**DOSM Publication :  
ICT Scope**


REVENUE		EXPENDITURE	
● Sales of manufactured/processed/assembled (market price)		● Cost of raw material/components/parts used	
● Income from industrial rendered	<ul style="list-style-type: none"> <li>• Fee received for processing work done for other establishments' on their materials</li> <li>• Income from repairs &amp; maintenance work done on other establishments' machinery &amp; equipment</li> </ul>	● Cost of goods sold (goods/materials purchased for resale without undergoing further processing)	● Payments for processing work done by others on materials supplied by this establishment
● Value of sales (from goods/materials purchased for resale without further processing)		● Packing materials & containers	● Utilities (water, electricity)
● Value of other industrial work done (e.g. construction, quarry, etc.)		● Materials used for repairs and maintenance	● Factory requisites (tools, consumables)
● Income from other output n.e.c. (e.g. scrap, electricity, waste product, etc.)		● Fuels, lubricants & gas	● Research & development
● Professional fees received (e.g. accounting, management, engineering, legal services, research & development (R&D))		● Payment for current repairs and maintenance on fixed assets done by others	● Employment cost : + Salaries & wages + Payment in kind to employees + Gratuity / retirement + Other labour costs (training cost, wearing apparel provided)
● Rental income	● Commission & brokerage earned	● Indirect taxes (excise duties, sales tax, export tax, quit rent, road tax and etc.)	
		● Payments for non-industrial services (carriage outwards, travelling expenses, advertising & promotion, IT expenses, bank/postal charges, telephone/internet fees, etc.)	
		● Stationery & office supplies	● Other expenses


## DOSM Publication : ICT Scope



**Structure of ICT Analysis:**  
**Sector / Sub-Sector / Industry Group / Sub-Group**

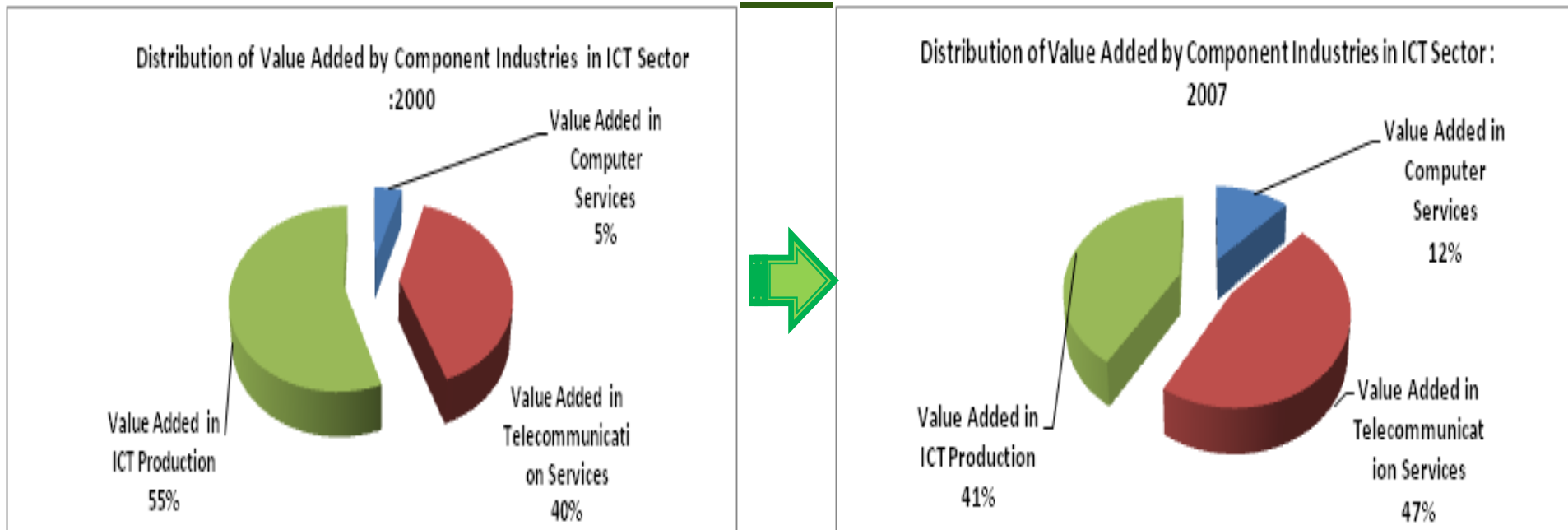
Year	Overall Gross Domestic Products (GDP) at Current Services	GDP of Services Components at Current Services	GDP of Manufacturing Components at Current Services	Value Added ICT Computer Services Sector	Value Added ICT Telecommunication Services	Value Added in ICT Services Sector	Value Added ICT Production Sector	Value Added in Overall ICT Sector
	RM (,000)	RM (,000)	RM (,000)	RM (,000)	RM (,000)	RM (,000)	RM (,000)	RM (,000)
2000	356,401,000	175,649,000	109,998,000	1,235,854	10,434,027	11,669,881	28,874,499	40,544,380
2001	352,579,000	184,655,000	103,434,000	1,566,924	10,986,615	12,553,539	22,820,975	35,374,514
2002	383,213,000	198,582,000	112,076,000	2,039,288	12,614,234	14,653,522	23,896,244	38,549,766
2003	418,769,000	208,215,000	125,332,000	2,269,682	12,538,294	14,807,976	26,530,675	41,338,651
2004	474,048,000	224,889,000	144,007,000	2,704,865	12,573,893	15,278,758	29,479,462	44,758,220
2005	522,445,000	244,136,000	154,657,000	3,420,437	16,325,318	19,745,755	29,693,110	49,438,865
2006	574,441,000	266,062,000	168,736,000	3,986,892	18,216,044	22,202,936	29,602,957	51,805,893
2007	639,776,000	299,139,000	178,705,000	4,965,076	18,825,168	23,790,244	33,534,065	57,324,309

- 
- 1) Share ICT value added to GDP declining due to declining importance of ICT production sector;
  - 2) But, share of ICT services component is continuously increasing
  - 3) Share of computer services kept increasing, faster than telecommunications;



Year	Share of ICT Value Added to GDP	Share of ICT Production to GDP	Share of ICT Services to GDP	Share of ICT Services to GDP	Share of ICT Production to Manufacturing	Share of Computer Services to GDP	Share of Telecommunication Services to GDP
	%	%	%	%	%	%	%
2000	11.4	8.1	3.3	6.6	26.3	0.3	2.9
2001	10.0	6.5	3.6	6.8	22.1	0.4	3.1
2002	10.1	6.2	3.8	7.4	21.3	0.5	3.3
2003	9.9	6.3	3.5	7.1	21.2	0.5	3.0
2004	9.4	6.2	3.2	6.8	20.5	0.6	2.7
2005	9.5	5.7	3.8	8.1	19.2	0.7	3.1
2006	9.0	5.2	3.9	8.3	17.5	0.7	3.2
2007	9.0	5.3	3.7	8.0	18.8	0.8	2.9

**Share of ICT:  
GDP/Manufacturing/ Services/Sub-sectors**

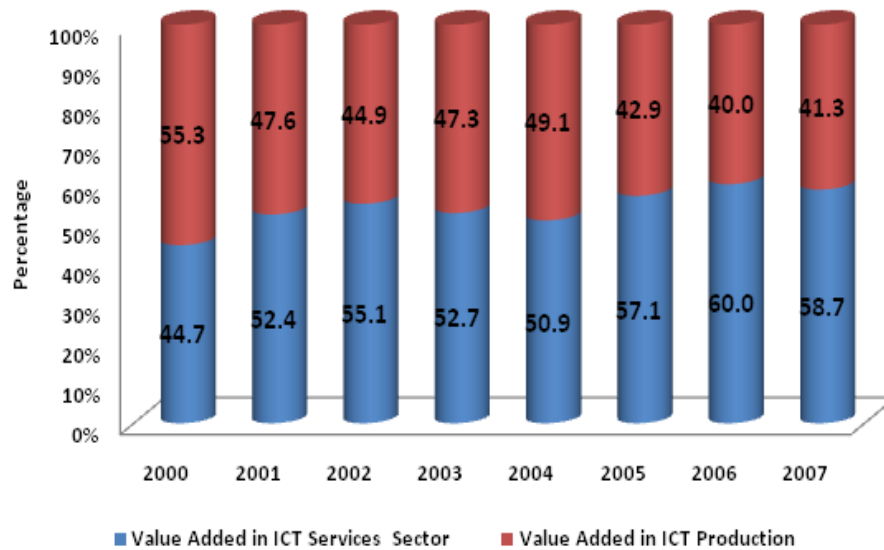


- 1) Share of Value added in ICT production declined from 55% to 41% between 2000 and 2007; the share of telecommunication increased from 40% to 47%; and computer services registered much higher increase in the share from 5% to 12%;
- 2) The ICT Services components (computer and telecommunications) substantial increase attributed to MSC flagship applications, e-government, online and mobile banking;
- 3) 278 e-government services e-payment enabled by 2009

**Structural Changes in ICT Sector :**  
**Distribution of Value Added Services by Sub-sector**

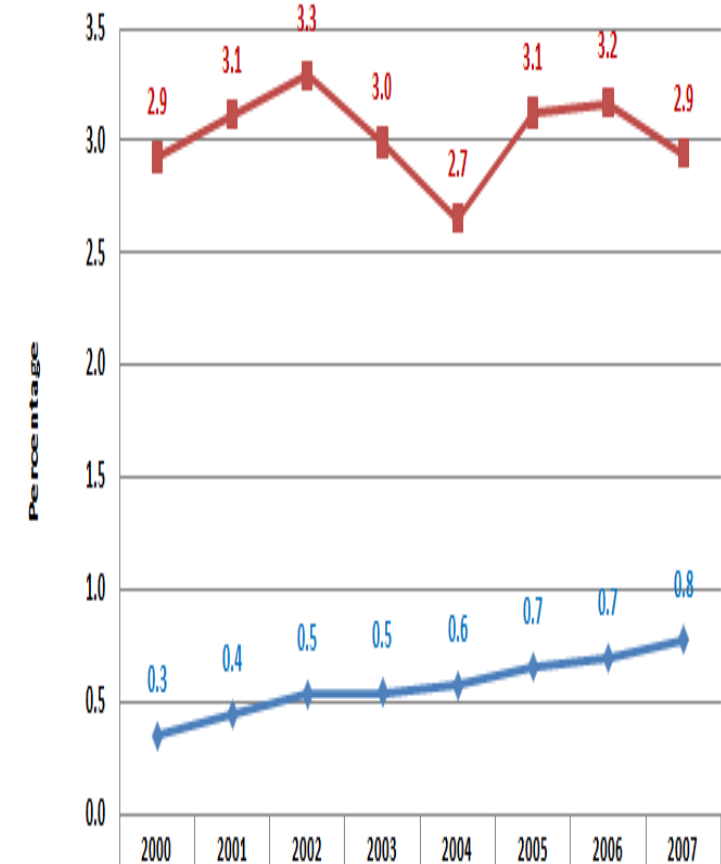


Share of ICT Production and ICT Services Within ICT Sector: 2000-2007



Increase in the share of ICT services sector attributed to significant growth of telecommunication and computer services; telecommunication registered prolific growth rate following its liberalization in the -nineties ; computer services growing exponentially due to e-services, including MSC role

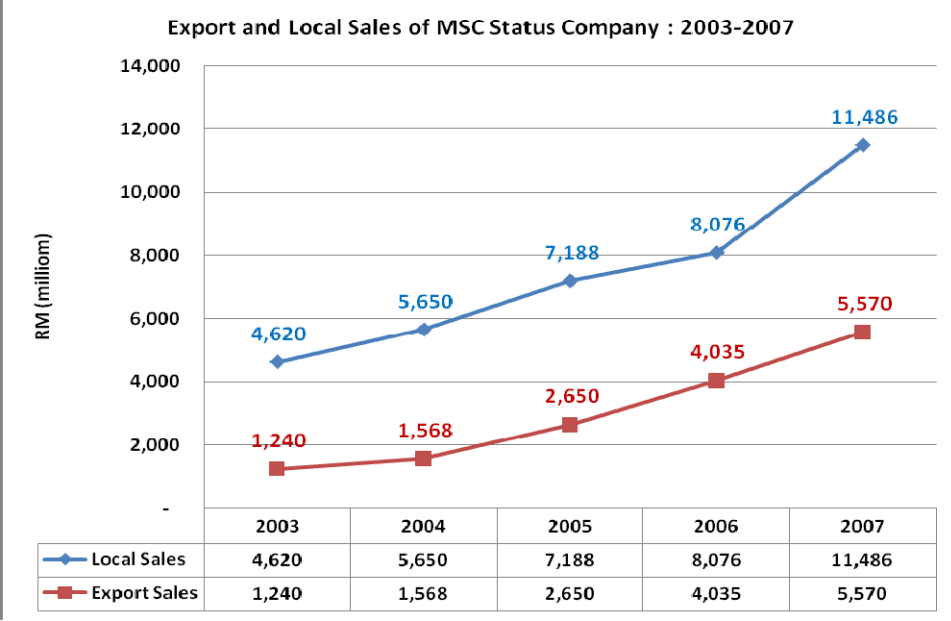
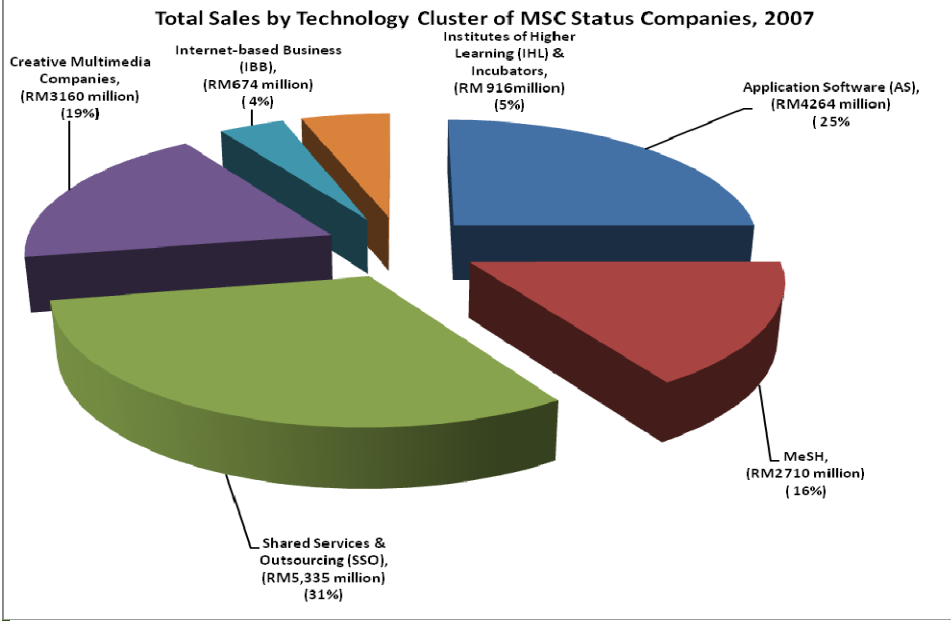
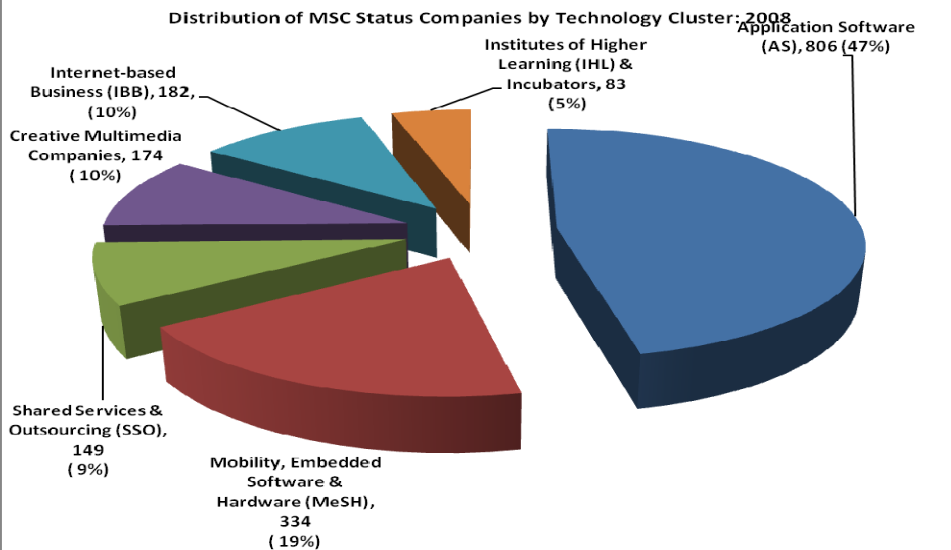
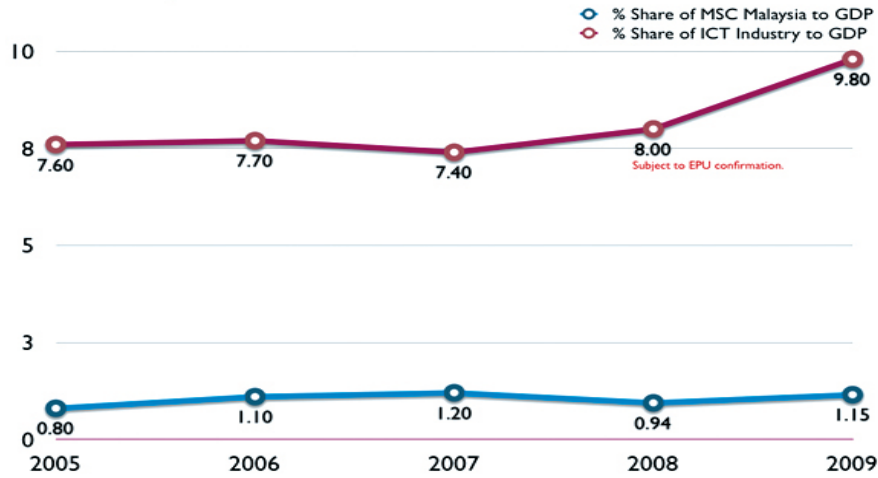
Share of Value Added Services of Computer and Telecommunication Services: 2000-2007



Share of Computer Services to GDP %	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.8
Share of Telecommunication Services to GDP %	2.9	3.1	3.3	3.0	2.7	3.1	3.2	2.9

## ICT Services Sector: Growth Patterns

**Contribution to GDP: MSC Malaysia Status Companies and ICT Industry 2005-2009**



# MSC ICT Services Sector: GDP / By Type / Export / Local Sales

Sources of Revenue in the Telecommunication Services Sector						Sources of Expenditure in the Telecommunication Services Sector					
Sources of Income	2005		2007		Geometric Growth Rate: 2005-2007 (AAGR %)	2005		2007		Geometric Growth Rate: 2005-2007 (AAGR %)	
	RM'000	%	RM'000	%		RM'000	%	RM'000	%		
Telephone services	20,786,102	64.7	24,957,982	62.2	6.3	Cost of materials used	3,087,620	11.3	266,617	0.8	-55.8
Television & radio transmission services	2,500,820	7.8	3,515,650	8.8	12.0	Value of supplies consumed	162,889	0.6	1,603,317	5.0	114.3
Data communication services	6,946,976	21.6	9,771,969	24.4	12.0	Utilities	271,258	1.0	1,290,637	4.0	68.2
Other services	171,282	0.5	273,158	0.7	16.8	Cost of goods sold	593,479	2.2	302,501	0.9	-20.1
Value of sales of goods and related services	776,550	2.4	603,781	1.5	-8.0	Payment of current repairs and maintenance on fixed assets	868,153	3.2	2,462,775	7.7	41.6
Rent/ rental income	19,216	0.1	59,241	0.1	45.5	Research and development	98,962	0.4	210,722	0.7	28.7
Other income	940,257	2.9	936,415	2.3	-0.7	Information technology related services	668,692	2.4	5,083,645	15.8	96.6
<b>Total Income</b>	<b>32,141,203</b>	<b>100.0</b>	<b>40,118,196</b>	<b>100.0</b>	<b>7.7</b>	Telecommunication related services	6,097,539	22.3	2,720,566	8.5	-23.6
						Professional services	388,661	1.4	1,187,075	3.7	45.1
						Advertising and promotion	1,168,779	4.3	1,395,884	4.3	6.1
						Other services	1,774,305	6.5	2,422,841	7.5	10.9
						Postage	57,134	0.2	63,521	0.2	3.6
						Financial charges	1,397,528	5.1	221,952	0.7	-45.8
						Insurance premium except workers' compensation insurance	53,433	0.2	57,402	0.2	2.4
						Rental payment	1,062,846	3.9	1,169,363	3.6	3.2
						Current depreciation on assets	4,898,654	17.9	4,307,483	13.4	-4.2
						Royalties and other indirect taxes	479,976	1.8	645,095	2.0	10.4
						Salaries & wages	1,650,213	6.0	2,385,533	7.4	13.1
						Payment in kind to employees	108,594	0.4	130,232	0.4	6.2
						Payment of gratuity, retirement / retrenchment benefits	270,094	1.0	214,012	0.7	-7.5
						EPF, SOCO, pension and welfare schemes	338,794	1.2	357,625	1.1	1.8
						Staff training cost	58,776	0.2	73,954	0.2	8.0
						Other employment cost	34,326	0.1	71,234	0.2	27.6
						Other expenditure	1,812,962	6.6	3,457,807	10.8	24.0
						<b>Total Expenditure</b>	<b>27,403,667</b>	<b>100</b>	<b>32,101,793</b>	<b>100</b>	<b>5.4</b>

- 1) Main sources of revenue in the telecommunication sector comes from telephone services (62.2%), followed by data communication services (24.4%) and TV & Radio transmission services (8.8%);
- 2) Information technology services account for 15.8% of the total expenditure incurred, followed by salaries and wages and asset depreciation;
- 3) R&D and training, attributing to human capital development gaining increasing attention in the telecommunication expenditure pattern

## Sources of Revenue & Expenditure: Telecommunication

Sources of Revenue in the Computer Services Sector					
Sources of Income	2005		2007		Geometric Growth Rate: 2005-2007 (AAGR %)
	RM'000	%	RM'000	%	
Packaged software product	2,339,778	21.6	3,639,011	24.7	15.9
Professional computer services	4,224,600	38.9	5,621,665	38.2	10.0
Data processing services	763,039	7.0	1,483,227	10.1	24.8
Database activities	278,653	2.6	563,456	3.8	26.5
Maintenance and repair of computers	561,589	5.2	983,505	6.7	20.5
Other services	190,780	1.8	250,803	1.7	9.5
Value of sales of goods and related services	2,008,529	18.5	1,700,734	11.6	-5.4
Rent/ rental income	85,011	0.8	87,151	0.6	0.8
Other income	396,899	3.7	381,802	2.6	-1.3
<b>Total Income</b>	<b>10,848,878</b>	<b>100.0</b>	<b>14,711,354</b>	<b>100.0</b>	<b>10.7</b>

Sources of Expenditure in the Computer Services Sector					
Sources of Expenditure	2005		2007		Geometric Growth Rate: 2005-2007 (AAGR %)
	RM'000	%	RM'000	%	
Cost of materials used	2,037,273	20.6	265,458	2.0	-49.3
Value of supplies consumed	624,701	6.3	1,440,563	10.8	32.1
Utilities	44,634	0.5	86,632	0.6	24.7
Cost of goods sold	1,625,526	16.5	1,119,217	8.4	-11.7
Payment of current repairs and maintenance on fixed assets	270,442	2.7	561,911	4.2	27.6
Research and development	118,830	1.2	265,573	2.0	30.7
Information technology related services	684,415	6.9	3,074,127	23.0	65.0
Telecommunication related services	333,631	3.4	323,558	2.4	-1.0
Professional services	152,493	1.5	209,793	1.6	11.2
Advertising and promotion	97,640	1.0	68,791	0.5	-11.0
Other services	320,032	3.2	917,704	6.9	42.1
Postage	13,038	0.1	13,401	0.1	0.9
Financial charges	77,652	0.8	117,458	0.9	14.8
Insurance premium except workers' compensation insurance	27,817	0.3	26,578	0.2	-1.5
Rental payment	210,395	2.1	292,656	2.2	11.6
Current depreciation on assets	349,105	3.5	398,407	3.0	4.5
Royalties and other indirect taxes	147,745	1.5	213,592	1.6	13.1
Salaries & wages	1,794,182	18.2	2,527,605	18.9	12.1
Payment in kind to employees	90,747	0.9	180,848	1.4	25.8
Payment of gratuity, retirement / retrenchment benefits	29,024	0.3	22,435	0.2	-8.2
EPF, SOCO, pension and welfare schemes	228,939	2.3	302,900	2.3	9.8
Staff training cost	76,296	0.8	82,425	0.6	2.6
Other employment cost	46,151	0.5	59,941	0.4	9.1
Other expenditure	476,519	4.8	823,287	6.1	20.0
<b>Total Expenditure</b>	<b>9,877,227</b>	<b>100</b>	<b>13,394,860</b>	<b>100</b>	<b>10.7</b>

- 1) Main sources of revenue in the computer sector comes from professional computer services (software consultancy, hardware consultancy, solutions etc) and packaged software (enterprise application, system infrastructure, enterprise resource management, consumer relationship management application etc.) and data processing services; all accounting for 73%;
- 2) Information technology services account for 23% of the total expenditure incurred, followed by salaries & wages (18.9%) and cost of materials consumed;
- 3) R&D gaining increasing attention but staff training did not;

## Sources of Revenue & Expenditure: Computer Services

# **ICT Variable Analysis**

- 1) Overall**
- 2) ICT Production**
- 3) ICT Services**
  - a) Telecommunication**
  - b) Computer**
- 4) Value added**
- 5) Cost of input**
- 6) Output value**
- 7) Employment**
- 8) Salaries and wages**
- 9) Fixed assets**

**Seminar on ICT Statistics,  
Seoul, 19-21 July 2010**



Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector
	Value Added (RM '000)	Value Added (RM '000)	Value Added (RM '000)	Value Added (RM '000)	Value Added (RM '000)	Value Added (RM '000)			
					% Share of sub-sectors				
2000	28,874,499	1,235,854	10,434,027	11,669,881	40,544,380	71.2	3.0	25.7	100.0
2001	22,820,975	1,566,924	10,986,615	12,553,539	35,374,514	64.5	4.4	31.1	100.0
2002	23,896,244	2,039,288	12,614,234	14,653,522	38,549,766	62.0	5.3	32.7	100.0
2003	26,530,675	2,269,682	12,538,294	14,807,976	41,338,651	64.2	5.5	30.3	100.0
2004	29,479,462	2,704,865	12,573,893	15,278,758	44,758,220	65.9	6.0	28.1	100.0
2005	29,693,110	3,420,437	16,325,318	19,745,755	49,438,665	60.1	6.9	33.0	100.0
2006	29,602,957	3,986,892	18,214,044	22,202,936	51,805,893	57.1	7.7	35.2	100.0
2007	33,534,065	4,965,076	18,825,168	23,790,244	57,324,309	58.5	8.7	32.8	100.0
Geometric Growth Rate : 2000-2007 (%)	2.2	22.0	8.8	10.7	5.1				

Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunications services	ICT Telecommunication Services	64201	64202	64203	64209	Total
	64201	64202	64203	64209	Total					Total
	Value Added (RM:'000)					% Share of sub-sectors				
2000	9,842,785	296,255	269,445	25,542	10,434,027	94.3	2.8	2.6	0.2	100.0
2001	10,175,086	529,890	258,360	23,279	10,986,615	92.6	4.8	3.1	0.2	100.0
2002	11,874,180	321,723	396,596	21,735	12,614,234	94.1	2.6	2.4	0.2	100.0
2003	11,347,072	607,032	563,899	20,291	12,538,294	90.5	4.8	4.5	0.2	100.0
2004	10,290,197	977,659	1,032,640	273,397	12,573,893	81.8	7.8	8.2	2.2	100.0
2005	11,375,061	933,711	3,826,995	189,551	16,325,318	69.7	5.7	23.4	1.2	100.0
2006	13,466,775	1,268,991	3,165,878	314,400	18,214,044	73.9	7.0	17.4	1.7	100.0
2007	12,363,557	1,474,353	4,447,925	539,333	18,825,168	65.7	7.8	23.6	2.9	100.0
Geometric Growth Rate : 2000-2007 (%)	3.3	25.8	49.3	54.6	8.8					

Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total
	30	31	32	33	Total					Total
	Value Added (RM:'000)					% Share of sub-sectors				
2000	4,611,465	1,277,859	22,691,722	293,454	28,874,499	16.0	4.4	78.6	1.0	100.0
2001	3,766,833	1,004,566	17,799,213	250,364	22,820,975	16.5	4.4	78.0	1.1	100.0
2002	4,917,953	1,166,953	17,574,137	237,201	23,896,244	20.6	4.9	73.5	1.0	100.0
2003	6,071,989	1,029,587	19,208,465	220,634	26,530,675	22.9	3.9	72.4	0.8	100.0
2004	7,718,772	1,217,352	20,217,985	325,353	29,479,462	26.2	4.1	68.6	1.1	100.0
2005	8,572,698	1,006,512	19,744,714	369,186	29,693,110	28.9	3.4	66.5	1.2	100.0
2006	7,518,736	1,028,783	20,569,930	485,508	29,602,957	25.4	3.5	69.5	1.6	100.0
2007	12,376,921	1,223,666	19,455,106	478,373	33,534,065	36.9	3.6	58.0	1.4	100.0
Geometric Growth Rate : 2000-2007 (%)	15.1	-0.6	-2.2	7.2	2.2					

Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	72100	72200	72300/72400	72500	72900	Total						Total
	Value Added (RM:'000)						% Share of sub-sectors					
2000	235,475	851,662	129,523	19,194	-	1,235,854	19.1	68.9	10.5	1.6	0.0	100.0
2001	150,644	1,207,272	180,251	28,757	-	1,566,924	9.6	77.0	11.5	1.8	0.0	100.0
2002	146,056	1,335,095	438,128	120,009	-	2,039,288	7.2	65.5	21.5	5.9	0.0	100.0
2003	280,508	1,604,197	193,136	191,841	-	2,269,682	12.4	70.7	8.5	8.5	0.0	100.0
2004	483,692	1,537,702	501,490	181,981	-	2,704,865	17.9	56.8	18.5	6.7	0.0	100.0
2005	595,176	1,989,342	494,694	315,809	25,416	3,420,437	17.4	58.2	14.5	9.2	0.7	100.0
2006	686,676	2,316,253	625,405	329,040	29,518	3,986,892	17.2	58.1	15.7	8.3	0.7	100.0
2007	1,195,318	2,544,601	840,996	345,019	39,142	4,965,076	24.1	51.2	16.9	6.9	0.8	100.0
Geometric Growth Rate : 2000-2007 (%)	26.1	16.9	30.6	51.1	-	22.0						

Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devices	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments	Total
	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20	Total
	Value Added (RM '000)											
2000	414,465	4,197,000	324,239	505,893	447,726	9,983,691	6,358,704	571,429	1,184,914	4,592,983	293,454	28,874,499
2001	113,097	3,653,735	231,118	450,056	323,392	8,298,690	5,250,234	496,350	352,238	3,401,701	250,364	22,820,975
2002	137,493	4,780,460	242,632	431,901	492,420	7,578,977	4,226,608	612,940	1,031,707	4,123,904	237,201	23,896,244
2003	31,082	6,040,908	112,903	419,608	497,076	8,584,137	4,365,481	847,535	1,560,614	3,850,697	220,634	26,530,675
2004	57,211	7,661,561	129,911	614,546	472,896	7,567,600	4,737,964	793,023	1,827,816	5,291,581	325,353	29,479,462
2005	39,318	8,533,380	120,806	364,503	521,202	7,796,752	4,284,529	1,537,082	1,980,913	4,145,438	369,186	29,693,110
2006	46,768	7,471,968	112,996	387,892	527,894	8,862,593	4,645,076	2,076,702	2,098,307	2,887,252	485,508	29,602,957
2007	36,003	12,340,918	111,653	368,046	743,967	8,112,790	4,155,763	2,149,549	1,972,820	3,064,185	478,373	33,534,065
Geometric Growth Rate : 2000-2007 (%)	-29.5	16.7	-14.1	-4.4	7.5	-2.9	-5.9	20.8	7.6	-5.6	7.2	2.2

# ICT Value Added at Sub-Sector: Growth Rate & Share



Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector	Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunications services	ICT Telecommunication Services	64201	64202	64203	64209	Total			
	Cost of Intermediate Input	Cost of Input (RM '000)	Cost of Input (RM '000)	Cost of Input (RM '000)	Cost of Input (RM '000)	Cost of Input (RM '000)					64201	64202	64203	64209	Total	% Share of sub-sectors							
						% Share of sub-sectors					Cost of Inputs (RM:'000)					% Share of sub-sectors							
2000	148,847,511	1,957,660	6,352,767	8,310,427	157,157,938	94.7	1.2	4.0	100.0	2000	5,203,342	671,860	444,879	32,686	6,352,767	81.9	10.6	7.0	0.5	100.0			
2001	125,984,355	2,623,840	7,938,057	10,561,897	136,546,252	92.3	1.9	5.8	100.0	2001	6,791,561	782,897	349,413	14,186	7,938,057	85.6	9.9	4.4	0.2	100.0			
2002	132,825,131	4,943,302	8,941,181	13,884,483	146,709,614	90.5	3.4	6.1	100.0	2002	7,331,084	1,163,972	433,235	12,890	8,941,181	82.0	13.0	4.8	0.1	100.0			
2003	160,170,071	4,538,401	9,218,150	13,756,551	173,926,622	92.1	2.6	5.3	100.0	2003	7,492,324	1,218,991	497,546	9,289	9,218,150	81.3	13.2	5.4	0.1	100.0			
2004	173,155,457	4,258,803	12,522,079	16,780,882	189,936,339	91.2	2.2	6.6	100.0	2004	9,676,492	1,143,145	1,534,701	167,741	12,522,079	77.3	9.1	12.3	1.3	100.0			
2005	186,385,931	5,415,855	16,612,747	22,028,602	208,414,533	89.4	2.6	8.0	100.0	2005	12,004,429	1,525,064	2,551,385	531,569	16,612,747	72.3	9.2	15.4	3.2	100.0			
2006	186,462,922	6,899,019	18,225,097	25,124,116	211,587,038	88.1	3.3	8.6	100.0	2006	12,137,318	1,516,340	3,916,670	654,769	18,225,097	66.6	8.3	21.5	3.6	100.0			
2007	185,917,600	8,234,881	20,031,672	28,266,553	214,184,153	86.8	3.8	9.4	100.0	2007	13,217,139	1,685,392	4,050,002	1,079,139	20,031,672	66.0	8.4	20.2	5.4	100.0			
Geometric Growth Rate : 2000-2007	3.2	22.8	17.8	19.1	4.5					Geometric Growth Rate : 2000-2007 (%)	14.2	14.0	37.1	64.8	17.8								
Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c.	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total	Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	30	31	32	33	Total	% Share of sub-sectors						72100	72200	72300/72400	72500	72900	Total	% Share of sub-sectors					
	Cost of Inputs (RM:'000)					% Share of sub-sectors						Cost of Inputs (RM:'000)					% Share of sub-sectors						
2000	35,262,621	5,549,445	106,663,788	1,371,658	148,847,511	23.7	3.7	71.7	0.9	100.0	2000	178,618	1,589,799	159,439	29,804	-	1,957,660	9.1	81.2	8.1	1.5	0.0	100.0
2001	34,685,340	3,206,872	86,774,648	1,317,495	125,984,355	27.5	2.5	68.9	1.0	100.0	2001	348,494	1,986,339	186,382	102,625	-	2,623,840	13.3	75.7	7.1	3.9	0.0	100.0
2002	38,967,756	4,024,122	88,486,750	1,346,504	132,825,131	29.3	3.0	66.6	1.0	100.0	2002	451,336	3,804,368	570,198	137,400	-	4,943,302	8.7	77.0	11.5	2.8	0.0	100.0
2003	53,091,943	3,782,435	102,271,242	1,024,451	160,170,071	33.1	2.4	63.9	0.6	100.0	2003	802,034	3,093,481	453,265	189,621	-	4,538,401	17.7	68.2	10.0	4.2	0.0	100.0
2004	52,915,248	4,734,942	114,112,906	1,392,360	173,155,457	30.6	2.7	65.9	0.8	100.0	2004	627,596	2,600,671	840,081	190,455	-	4,258,803	14.7	61.1	19.7	4.5	0.0	100.0
2005	56,023,170	5,065,603	123,731,069	1,566,090	186,385,931	30.1	2.7	66.4	0.8	100.0	2005	1,097,340	3,457,809	574,056	254,026	32,624	5,415,855	20.3	63.8	10.6	4.7	0.6	100.0
2006	56,996,846	6,658,633	120,912,798	1,894,645	186,462,922	30.6	3.6	64.8	1.0	100.0	2006	1,210,326	4,192,647	1,092,313	377,262	26,471	6,899,019	17.5	60.8	15.8	5.5	0.4	100.0
2007	61,558,064	9,008,191	113,421,411	1,929,934	185,917,600	33.1	4.8	61.0	1.0	100.0	2007	1,747,142	4,754,497	1,231,139	484,661	17,442	8,234,881	21.2	57.7	15.0	5.9	0.2	100.0
Geometric Growth Rate : 2000-2007 (%)	8.3	7.2	0.9	5.0	3.2					Geometric Growth Rate : 2000-2007 (%)	38.5	16.9	33.9	48.9	-	22.8							
Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devices	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments												
	Cost of Intermediate Input (RM '000)																						
	30001	30002	31001	31302	31309	32101	32102	32109	32200	32300	3310/20	Total											
2000	1,719,526	33,543,095	1,567,331	2,160,583	1,821,531	27,739,898	26,857,515	3,357,364	6,908,768	41,800,243	1,371,658	148,847,511											
2001	705,365	33,979,974	580,972	1,410,342	1,215,558	23,053,544	24,821,839	2,721,167	3,451,368	32,726,730	1,317,495	125,984,355											
2002	1,120,754	37,847,002	714,480	1,169,995	2,139,646	30,447,269	20,096,366	2,426,377	4,783,723	30,733,015	1,346,504	132,825,131											
2003	95,564	52,996,379	564,252	1,001,804	2,216,379	35,753,897	21,658,110	2,534,922	8,445,939	33,878,373	1,024,451	160,170,071											
2004	272,799	52,642,449	437,667	1,350,737	2,946,539	40,460,509	24,876,604	3,558,752	11,152,069	34,064,972	1,392,360	173,155,457											
2005	207,568	55,815,602	402,586	1,390,725	3,272,292	37,262,422	27,656,665	6,358,426	14,759,875	37,693,681	1,566,090	186,385,931											
2006	204,532	56,792,314	431,138	1,995,281	4,232,215	40,636,785	29,663,828	6,948,829	14,819,577	28,843,780	1,894,645	186,462,922											
2007	171,336	61,386,728	317,199	2,063,957	6,627,035	35,206,801	27,057,837	11,166,328	15,147,314	24,843,132	1,929,934	185,917,600											
Geometric Growth Rate : 2000-2007 (%)	-28.1	9.0	-20.4	-0.7	20.3	3.5	0.1	18.7	11.9	-7.2	5.0	3.2											

## Cost of Input at Sub-Sector: Growth Rate & Share

Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector	Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunications services	ICT Telecommunication Services	64201	64202	64203	64209	Total			
	Output (RM:'000)	Output (RM:'000)	Output (RM:'000)	Output (RM:'000)	Output (RM:'000)	Output (RM:'000)					64201	64202	64203	64209	Total								
						% Share of sub-sectors																	
2000	177,722,011	3,194,514	16,786,794	19,981,308	197,703,319	89.9	1.6	8.5	100.0		Output (RM:'000)				% Share of sub-sectors								
2001	148,805,330	4,190,764	18,924,672	23,115,436	171,920,766	86.6	2.4	11.0	100.0	2000	15,046,126	968,116	714,324	58,228	16,786,794	89.6	5.8	4.3	0.3	100.0			
2002	156,721,375	6,982,590	21,555,415	28,538,005	185,259,380	84.6	3.8	11.6	100.0	2001	16,966,647	1,312,787	607,773	37,465	18,924,672	89.7	6.9	3.2	0.2	100.0			
2003	186,700,747	6,808,083	21,756,444	28,564,527	215,265,274	86.7	3.2	10.1	100.0	2002	19,205,264	1,485,695	829,831	34,625	21,555,415	89.1	6.9	3.8	0.2	100.0			
2004	202,634,918	6,963,668	25,095,971	32,059,639	234,694,557	86.3	3.0	10.7	100.0	2003	18,839,396	1,826,023	1,061,445	29,580	21,756,444	86.6	8.4	4.9	0.1	100.0			
2005	216,079,041	8,836,292	32,938,065	41,774,357	257,853,398	83.8	3.4	12.8	100.0	2004	19,966,689	2,120,804	2,567,340	44,138	25,095,971	79.6	8.5	10.2	1.8	100.0			
2006	216,065,879	10,885,912	36,441,141	47,327,053	263,392,932	82.0	4.1	13.8	100.0	2005	23,379,790	2,458,775	6,378,380	721,120	32,938,065	71.0	7.5	19.4	2.2	100.0			
2007	219,451,665	13,199,957	38,856,840	52,056,797	271,508,462	80.8	4.9	14.3	100.0	2006	25,604,093	2,785,331	7,082,548	969,169	36,441,141	70.3	7.6	19.4	2.7	100.0			
Geometric Growth Rate : 2000-2007	3.1	22.5	12.7	14.7	4.6					2007	25,580,696	3,159,745	8,497,927	1,618,472	38,856,840	65.8	8.1	21.9	4.2	100.0			
										Geometric Growth Rate : 2000-2007 (%)	7.9	18.4	42.4	60.8	12.7								
Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total	Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	30	31	32	33	Total	% Share of sub-sectors						Output (RM:'000)				% Share of sub-sectors							
	Output (RM:'000)					% Share of sub-sectors						Output (RM:'000)				% Share of sub-sectors							
2000	39,874,086	6,827,303	129,355,509	1,665,112	177,722,011	22.4	3.8	72.8	0.9	100.0	2000	414,093	2,441,461	288,962	49,998	-	3,194,514	13.0	76.4	9.0	1.6	0.0	100.0
2001	38,452,172	4,211,439	104,573,861	1,567,859	148,805,330	25.8	2.8	70.3	1.1	100.0	2001	499,138	3,193,611	366,633	131,382	-	4,190,764	11.9	76.2	8.7	3.1	0.0	100.0
2002	43,885,709	5,191,074	106,060,886	1,583,705	156,721,375	28.0	3.3	67.7	1.0	100.0	2002	577,392	5,139,463	1,008,326	257,409	-	6,982,590	8.3	73.6	14.4	3.7	0.0	100.0
2003	59,163,932	4,812,022	121,479,707	1,245,085	186,700,747	31.7	2.6	65.1	0.7	100.0	2003	1,082,542	4,697,678	646,401	381,462	-	6,808,083	15.9	69.0	9.5	5.6	0.0	100.0
2004	60,634,020	5,952,294	134,330,891	1,717,713	202,634,918	29.9	2.9	66.3	0.8	100.0	2004	1,111,288	4,138,373	1,341,571	372,436	-	6,963,668	16.0	59.4	19.3	5.3	0.0	100.0
2005	64,595,868	6,072,114	143,475,783	1,935,276	216,079,041	29.9	2.8	66.4	0.9	100.0	2005	1,692,515	5,447,151	1,068,752	569,834	58,040	8,836,292	19.2	61.6	12.1	6.4	0.7	100.0
2006	64,515,582	7,687,416	141,482,728	2,380,153	216,065,879	29.9	3.6	65.5	1.1	100.0	2006	1,897,002	6,508,901	1,717,718	706,302	55,989	10,885,912	17.4	59.8	15.8	6.5	0.5	100.0
2007	73,934,985	10,231,856	132,876,517	2,408,307	219,451,665	33.7	4.7	60.5	1.1	100.0	2007	2,942,460	7,299,098	2,072,135	829,680	56,584	13,199,957	22.3	55.3	15.7	6.3	0.4	100.0
Geometric Growth Rate : 2000-2007 (%)	9.2	5.9	0.4	5.4	3.1						32.3	16.9	32.5	49.4	-	22.5							
Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devices	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments	Production Sector Output											
	Output ('000)																						
	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20	Total											
2000	2,133,991	37,740,095	1,891,570	2,666,476	2,269,258	37,723,589	33,216,219	3,928,793	8,093,682	46,393,226	1,665,112	177,722,011											
2001	818,463	37,633,710	812,090	1,860,399	1,538,950	31,352,234	30,072,073	3,217,517	3,803,606	36,128,430	1,567,859	148,805,330											
2002	1,258,247	42,627,462	957,112	1,601,896	2,632,066	38,026,246	24,322,974	3,039,317	5,815,430	34,856,919	1,583,705	156,721,375											
2003	126,646	59,037,287	677,156	1,421,412	2,713,455	44,338,035	26,023,591	3,382,458	10,006,553	37,729,071	1,245,085	186,700,747											
2004	330,010	60,304,010	567,578	1,965,282	3,419,434	48,028,110	29,614,568	4,351,776	12,979,885	39,356,552	1,717,713	202,634,918											
2005	246,886	64,348,982	523,392	1,755,228	3,793,494	45,059,175	31,941,194	7,895,508	16,740,788	41,839,119	2,123,803	216,267,568											
2006	251,300	64,264,282	544,134	2,383,173	4,760,110	49,499,378	34,308,904	9,025,531	16,917,884	31,731,032	2,380,153	216,065,879											
2007	207,338	73,727,647	428,853	2,432,002	7,371,001	43,319,591	31,213,600	13,315,876	17,120,133	27,907,316	2,408,307	219,451,665											
Geometric Growth Rate : 2000-2007 (%)	-28.3	10.0	-19.1	-1.3	18.3	2.0	-0.9	19.1	11.3	-7.0	5.4	3.1											

# Output Value at Sub-Sector: Growth Rate & Share

Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector	Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunication services	ICT Telecommunication Services	64201	64202	64203	64209	Total
	Employment	Employment	Employment	Employment	Employment	Employment					Employment				Total	% Share of sub-sectors				
	% Share of sub-sectors																			
2000	436,981	12,240	43,557	55,797	492,778	88.7	2.5	8.8	100.0	2000	38131	3099	1557	770	43,557	87.5	7.1	3.6	1.8	100.0
2001	346,248	13,541	43,124	56,665	402,913	85.9	3.4	10.7	100.0	2001	37445	3397	1710	572	43,124	86.8	7.9	4.0	1.3	100.0
2002	367,941	20,028	40,419	60,447	428,388	85.9	4.7	9.4	100.0	2002	34321	3112	2484	502	40,419	84.9	7.7	6.1	1.2	100.0
2003	384,121	22,661	37,701	60,362	444,483	86.4	5.1	8.5	100.0	2003	31425	3039	2853	384	37,701	83.4	8.1	7.6	1.0	100.0
2004	378,430	26,973	40,874	67,847	446,277	84.8	6.0	9.2	100.0	2004	30240	4184	5257	1193	40,874	74.0	10.2	12.9	2.9	100.0
2005	392,889	34,192	42,118	76,310	469,199	83.7	7.3	9.0	100.0	2005	29251	4055	5790	3022	42,118	69.5	9.6	13.7	7.2	100.0
2006	394,271	39,146	44,013	83,159	477,430	82.6	8.2	9.2	100.0	2006	29912	4041	6649	3411	44,013	68.0	9.2	15.1	7.7	100.0
2007	387,310	47,357	44,303	91,660	478,970	80.9	9.9	9.2	100.0	2007	28177	4375	8055	3696	44,303	63.6	9.9	18.2	8.3	100.0
Geometric Growth Rate : 2000-2007	-1.7	21.3	0.2	7.3	-0.4					Geometric Growth Rate : 2000-2007 (%)	-4.2	5.0	26.5	25.1	0.2					

Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total	Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	30	31	32	33	Total	% Share of sub-sectors						Employment				Total	% Share of sub-sectors						
	Employment																						
2000	72,174	26,159	330,550	8,098	436,981	16.5	6.0	75.6	1.9	100.0	2000	2,689	7,642	1,281	628	-	12,240	22.0	62.4	10.5	5.1	0.0	100.0
2001	65,913	21,747	250,570	8,018	346,248	19.0	6.3	72.4	2.3	100.0	2001	1,616	10,220	1,084	621	-	13,541	11.9	75.5	8.0	4.6	0.0	100.0
2002	59,607	23,111	279,233	5,990	367,941	16.2	6.3	75.9	1.6	100.0	2002	1,471	13,799	3,328	1,430	-	20,028	7.3	68.9	16.6	7.1	0.0	100.0
2003	57,312	23,668	297,003	6,137	384,121	14.9	6.2	77.3	1.6	100.0	2003	2,650	14,456	3,209	2,346	-	22,661	11.7	63.8	14.2	10.4	0.0	100.0
2004	64,289	22,882	285,236	6,023	378,430	17.0	6.0	75.4	1.6	100.0	2004	3,843	14,627	6,096	2,407	-	26,973	14.2	54.2	22.6	8.9	0.0	100.0
2005	81,514	20,495	290,880	-	392,889	20.7	5.2	74.0	0.0	100.0	2005	5,392	18,431	6,861	3,219	289	34,192	15.8	53.9	20.1	9.4	0.8	100.0
2006	83,145	18,401	292,725	-	394,271	21.1	4.7	74.2	0.0	100.0	2006	7,073	20,599	7,938	3,285	251	39,146	18.1	52.6	20.3	8.4	0.6	100.0
2007	105,439	21,587	260,284	-	387,310	27.2	5.6	67.2	0.0	100.0	2007	10,158	23,704	10,050	3,207	238	47,357	21.4	50.1	21.2	6.8	0.5	100.0
Geometric Growth Rate : 2000-2007 (%)	5.6	-2.7	-3.4	-100.0	-1.7						Geometric Growth Rate : 2000-2007 (%)	20.9	17.6	34.2	26.2	-	21.3						

Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devices	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments	Total
	Total Number of Employees											
	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20	Total
2000	2,746	69,428	5,408	8,117	12,634	87,888	89,180	16,039	15,200	122,243	8,098	436,981
2001	3,204	62,709	4,051	8,779	8,917	78,254	68,661	13,567	9,689	80,399	8,018	346,248
2002	4,142	55,465	4,365	7,592	11,154	80,215	76,070	14,658	12,715	95,576	5,990	367,941
2003	889	56,423	3,897	6,725	13,046	85,504	81,549	15,899	15,621	98,431	6,137	384,121
2004	2,069	62,221	3,596	8,126	11,160	83,579	78,615	17,399	19,329	86,314	6,023	378,430
2005	1,466	80,048	2,864	4,430	13,201	84,079	84,034	25,029	21,314	76,424	5,128	392,889
2006	1,428	81,717	2,900	4,267	11,234	88,038	92,780	23,691	19,842	68,373	5,786	400,057
2007	1,263	104,176	3,305	3,223	15,059	67,497	85,432	24,246	22,408	60,701	5,589	392,899
Geometric Growth Rate : 2000-2007 (%)	-10.5	6.0	-6.8	-12.4	2.5	-3.7	-0.6	6.1	5.7	-9.5	-5.2	-1.5

## Employment at Sub-Sector: Growth Rate & Share

Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector	Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunication services	ICT Telecommunication Services	64201	64202	64203	64209	Total			
	Salaries & Wages (RM '000)	Salaries & Wages (RM '000)	Salaries & Wages (RM '000)	Salaries & Wages	Salaries & Wages	Salaries & Wages (RM '000)					64201	64202	64203	64209	Total								
						% Share of sub-sectors					Salaries & Wages (RM: '000)					% Share of sub-sectors							
2000	8,097,496	577,764	1,313,595	1,891,359	9,988,855	81.1	5.8	13.2	100.0	2000	1,128,931	123,881	45,453	15,350	1,313,595	85.9	9.4	3.5	1.2	100.0			
2001	6,993,748	710,555	1,449,492	2,160,047	9,153,795	76.4	7.8	15.8	100.0	2001	1,238,543	142,091	54,871	14,187	1,449,492	85.4	9.8	3.8	1.0	100.0			
2002	7,437,401	998,245	1,461,585	2,459,830	9,897,231	75.1	10.1	14.8	100.0	2002	1,209,763	133,301	105,246	13,275	1,461,585	82.8	9.1	7.2	0.9	100.0			
2003	7,886,923	1,240,064	1,595,295	2,835,359	10,722,282	73.6	11.6	14.9	100.0	2003	1,288,397	160,441	135,700	10,757	1,595,295	80.8	10.1	8.5	0.7	100.0			
2004	8,463,162	1,529,925	1,773,811	3,303,736	11,766,898	71.9	13.0	15.1	100.0	2004	1,227,310	169,820	293,876	82,805	1,773,811	69.2	9.6	16.6	4.7	100.0			
2005	9,119,111	1,794,182	1,650,213	3,444,395	12,563,506	72.6	14.3	13.1	100.0	2005	985,109	218,363	304,363	142,378	1,650,213	59.7	13.2	18.4	8.6	100.0			
2006	9,346,199	2,116,175	2,243,676	4,359,851	13,706,050	68.2	15.4	16.4	100.0	2006	1,454,964	214,424	387,577	186,711	2,243,676	64.8	9.6	17.3	8.3	100.0			
2007	9,615,119	2,527,605	2,261,009	4,788,614	14,403,733	66.8	17.5	15.7	100.0	2007	1,428,594	245,244	374,692	212,479	2,261,009	63.2	10.8	16.6	9.4	100.0			
Geometric Growth Rate : 2000-2007	2.5	23.5	8.1	14.2	5.4					Geometric Growth Rate : 2000-2007 (%)	3.4	10.3	35.2	45.6	8.1								
Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total	Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	30	31	32	33	Total							72100	72200	72300/72400	72500	72900	Total						
	Salaries & Wages (RM: '000)					% Share of sub-sectors					Salaries & Wages (RM: '000)					% Share of sub-sectors							
2000	1,311,919	474,574	6,175,565	135,439	8,097,496	16.2	5.9	76.3	1.7	100.0	2000	154,767	315,498	90,544	16,955	-	577,764	26.8	54.6	15.7	2.9	0.0	100.0
2001	1,315,059	387,779	5,156,965	133,945	6,993,748	18.8	5.5	73.7	1.9	100.0	2001	84,213	519,842	84,094	22,406	-	710,555	11.9	73.2	11.8	3.2	0.0	100.0
2002	1,225,476	440,127	5,655,159	116,640	7,437,401	16.5	5.9	76.0	1.6	100.0	2002	76,691	662,954	188,506	70,094	-	998,245	7.7	66.4	18.9	7.0	0.0	100.0
2003	1,225,033	441,164	6,110,002	110,723	7,886,923	15.5	5.6	77.5	1.4	100.0	2003	185,475	813,444	121,049	120,096	-	1,240,064	15.0	65.6	9.8	9.7	0.0	100.0
2004	1,505,058	471,423	6,367,768	118,913	8,463,162	17.8	5.6	75.2	1.4	100.0	2004	290,527	844,788	281,018	113,592	-	1,529,925	19.0	55.2	18.4	7.4	0.0	100.0
2005	1,994,697	386,313	6,643,107	94,994	9,119,111	21.9	4.2	72.8	1.0	100.0	2005	269,063	1,119,278	255,361	139,403	11,077	1,794,182	15.0	62.4	14.2	7.8	0.6	100.0
2006	2,001,274	378,435	6,844,568	121,923	9,346,199	21.4	4.0	73.2	1.3	100.0	2006	340,850	1,267,621	340,914	154,677	12,113	2,116,175	16.1	59.9	16.1	7.3	0.6	100.0
2007	2,578,634	444,023	6,449,273	143,190	9,615,119	26.8	4.6	67.1	1.5	100.0	2007	619,992	1,254,439	496,235	142,102	14,837	2,527,605	24.5	49.6	19.6	5.6	0.6	100.0
Geometric Growth Rate : 2000-2007 (%)	10.1	-0.9	0.6	0.8	2.5						Geometric Growth Rate : 2000-2007 (%)	21.9	21.8	27.5	35.5	-	23.5						
Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devises	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments	Total											
	Salaries & Wages (RM '000)																						
	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20	Total											
2000	92,566	1,219,353	102,580	187,672	184,322	2,144,534	1,500,572	248,497	277,596	2,004,367	135,439	8,097,496											
2001	40,032	1,275,026	72,630	185,791	129,358	1,937,904	1,286,026	227,563	150,481	1,554,992	133,945	6,993,748											
2002	71,111	1,154,365	83,507	163,834	192,785	2,064,751	1,358,688	283,271	233,984	1,714,465	116,640	7,437,401											
2003	12,440	1,212,592	56,625	153,043	231,497	2,222,935	1,456,835	285,858	329,336	1,815,040	110,723	7,886,923											
2004	30,421	1,474,638	55,218	187,026	229,179	2,264,756	1,524,893	335,730	374,190	1,868,198	118,913	8,463,162											
2005	21,472	1,973,225	45,821	108,797	231,694	2,266,759	1,609,066	476,179	481,869	1,809,235	94,994	9,119,111											
2006	22,359	1,978,914	46,184	107,139	225,112	2,421,628	1,925,552	573,677	471,471	1,452,240	121,923	9,346,199											
2007	17,991	2,560,643	55,190	81,522	307,311	2,198,026	1,743,127	612,906	509,338	1,385,877	143,190	9,615,119											
Geometric Growth Rate : 2000-2007 (%)	-20.9	11.2	-8.5	-11.2	7.6	0.4	2.2	13.8	9.1	-5.1	0.8	2.5											

# Salaries & Wages at Sub-Sector: Growth Rate & Share



Year	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Services Sector	ICT Overall Sector	ICT Production Sector	ICT Computer Services Sector	ICT Telecommunication Services	ICT Overall Sector
	Fixed Assets Value (RM: '000)	Fixed Assets Value (RM: '000)	Fixed Assets Value (RM: '000)	Fixed Assets Value (RM: '000)	Fixed Assets Value (RM: '000)	Fixed Assets Value (RM: '000)			
	% Share of sub-sectors								
2000	33,660,030	456,333	28,315,033	28,771,366	62,431,396	53.9	0.7	45.4	100.0
2001	29,449,237	656,690	29,219,580	29,876,270	59,325,507	49.6	1.1	49.3	100.0
2002	32,282,432	894,057	31,834,021	32,728,078	65,010,510	49.7	1.4	49.0	100.0
2003	33,371,456	1,076,245	30,142,575	31,218,820	64,590,276	51.7	1.7	46.7	100.0
2004	32,678,142	1,304,927	28,662,331	29,967,258	62,645,400	52.2	2.1	45.8	100.0
2005	34,798,738	1,525,693	28,370,004	29,895,697	64,694,435	53.8	2.4	43.9	100.0
2006	34,394,634	1,432,994	24,377,280	25,810,274	60,204,908	57.1	2.4	40.5	100.0
2007	29,243,882	1,943,167	24,383,714	26,326,881	55,570,763	52.6	3.5	43.9	100.0
Geometric Growth Rate : 2000-2007	-2.0	23.0	-2.1	-1.3	-1.6				

Year	Telephone services (fixed line, public and cellular)	Television and radio transmission services	Data communication services	Other telecommunication services	ICT Telecommunication Services	64201	64202	64203	64209	Total
	64201	64202	64203	64209	Total	% Share of sub-sectors				
	Value of Fixed Assets (RM: '000)					% Share of sub-sectors				
2000	26,613,403	1,037,206	629,241	35,183	28,315,033	94.0	3.7	2.2	0.1	100.0
2001	27,408,716	1,135,728	642,600	32,536	29,219,580	93.8	3.9	2.2	0.1	100.0
2002	30,320,864	547,153	935,952	30,052	31,834,021	95.2	1.7	2.9	0.1	100.0
2003	28,214,062	460,071	1,447,354	21,088	30,142,575	93.6	1.5	4.8	0.1	100.0
2004	22,435,016	455,355	5,655,095	116,865	28,662,331	78.3	1.6	19.7	0.4	100.0
2005	21,895,548	407,509	5,893,704	173,243	28,370,004	77.2	1.4	20.8	0.6	100.0
2006	21,134,088	524,584	2,546,306	172,302	24,377,280	86.7	2.2	10.4	0.7	100.0
2007	20,059,700	1,076,093	3,050,303	197,618	24,383,714	82.3	4.4	12.5	0.8	100.0
Geometric Growth Rate : 2000-2007 (%)	-4.0	0.5	25.3	28.0	-2.1					

Year	Manufacture of Office, Accounting and Computing Machinery	Manufacture of Electrical Machinery and Apparatus n.e.c	Manufacture of Radio, Television and Communication Equipment and Apparatus	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	ICT Production Sector	30000	31000	32000	33000	Total
	30	31	32	33	Total	% Share of sub-sectors				
	Value of Fixed Assets (RM: '000)					% Share of sub-sectors				
2000	3,982,095	2,889,397	26,480,936	307,603	33,660,030	11.8	8.6	78.7	0.9	100.0
2001	3,905,507	2,541,518	22,727,274	274,939	29,449,237	13.3	8.6	77.2	0.9	100.0
2002	3,334,598	2,778,079	26,010,220	159,534	32,282,432	10.3	8.6	80.6	0.5	100.0
2003	4,148,274	2,330,399	26,714,140	178,643	33,371,456	12.4	7.0	80.1	0.5	100.0
2004	4,764,141	2,448,494	25,262,800	202,708	32,678,142	14.6	7.5	77.3	0.6	100.0
2005	7,571,642	1,709,549	25,304,487	213,060	34,798,738	21.8	4.9	72.7	0.6	100.0
2006	7,186,717	1,757,545	25,172,625	277,747	34,394,634	20.9	5.1	73.2	0.8	100.0
2007	7,207,624	1,554,833	20,201,887	279,538	29,243,882	24.6	5.3	69.1	1.0	100.0
Geometric Growth Rate : 2000-2007 (%)	8.8	-8.5	-3.8	-1.4	-2.0					

Year	Hardware consultancy services	Software consultancy and supply services	Data processing services and Database activities	Maintenance and repair of office, accounting and computing machinery	Other computer related activities	ICT Computer Services Sector	72100	72200	72300/72400	72500	72900	Total
	72100	72200	72300/72400	72500	72900	Total	% Share of sub-sectors					
	Value of Fixed Assets (RM: '000)						% Share of sub-sectors					
2000	54,140	310,574	85,324	6,295	-	456,333	11.9	68.1	18.7	1.4	0.0	100.0
2001	82,514	520,392	44,393	9,391	-	656,690	12.6	79.2	6.8	1.4	0.0	100.0
2002	49,769	570,898	196,130	77,260	-	894,057	5.6	63.9	21.9	8.6	0.0	100.0
2003	107,518	591,586	246,097	131,044	-	1,076,245	10.0	55.0	22.9	12.2	0.0	100.0
2004	223,530	586,682	401,442	93,273	-	1,304,927	17.1	45.0	30.8	7.1	0.0	100.0
2005	328,909	665,422	206,316	311,952	13,094	1,525,693	21.6	43.6	13.5	20.4	0.9	100.0
2006	326,751	665,421	135,729	291,402	13,691	1,432,994	22.8	46.4	9.5	20.3	1.0	100.0
2007	663,599	858,213	202,725	204,968	13,662	1,943,167	34.2	44.2	10.4	10.5	0.7	100.0
Geometric Growth Rate : 2000-2007 (%)	43.0	15.6	13.2	64.5	-	23.0						

Year	Accounting machinery	Computers and peripherals	telecommunication cables	Electrical cables	Insulated wires	Semi-conductor devises	Electronic valves	Other electronic components	Tv & radio transmitters	TV & Radio Recordings	Measuring & Industrial process instruments	Total
	30001	30002	31301	31302	31309	32101	32102	32109	32200	32300	33130/20	Total
	Fixed Assets Value in ICT Production Sector ('000)											
2000	362,377	3,619,718	692,276	1,173,204	1,023,917	12,877,850	7,079,524	665,552	791,015	5,066,994	307,603	33,660,030
2001	111,212	3,794,295	604,297	1,278,144	659,077	12,742,293	5,872,220	580,014	379,287	3,153,460	274,939	29,449,237
2002	123,617	3,210,981	612,340	1,114,027	1,051,712	16,028,515	5,524,971	651,689	614,058	3,190,989	159,534	32,282,432
2003	35,440	4,112,834	326,555	954,463	1,049,381	16,618,275	5,280,461	635,809	976,678	3,202,917	178,643	33,371,456
2004	82,455	4,681,686	261,872	1,180,143	1,006,479	15,305,445	5,127,020	832,533	913,146	3,084,656	202,708	32,678,142
2005	68,512	7,503,130	166,467	649,410	893,672	13,850,045	5,942,026	852,331	999,271	3,660,814	213,060	34,798,738
2006	60,759	7,125,958	170,249	784,233	803,063	13,729,968	6,012,022	1,473,834	837,923	3,118,879	277,747	34,394,634
2007	55,813	7,151,811	95,869	390,947	1,068,017	11,553,744	3,987,245	936,021	933,375	2,791,502	279,538	29,243,882
Geometric Growth Rate : 2000-2007 (%)	-23.5	10.2	-24.6	-14.5	0.6	-1.5	-7.9	5.0	2.4	-8.2	-1.4	-2.0

## Fixed Assets at Sub-Sector: Growth Rate & Share

# ICT Productivity Indicators

- 1) Overall
- 2) ICT Production
- 3) ICT Services
  - a) Telecommunication
  - b) Computer
- 4) Labour competitiveness
  - a) Added value per labour cost
  - b) Labour cost per employee
  - c) Unit labour cost
- 5) Labour productivity
  - a) Added value per employee
  - b) Total output per employee
- 6) Capital productivity
  - a) Added value per fixed assets
- 7) Capital intensity
  - a) Fixed assets per employee
- 8) Process efficiency
  - a) Added value content

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Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>ICT Production Sector</b>										
2000	1.19	16.2	66,077	0.86	3.57	406,704	18,531	21.9	77,029	5.28
2001	1.18	15.3	65,909	0.77	3.26	429,766	20,199	21.3	85,053	5.05
2002	1.18	15.2	64,946	0.74	3.21	425,942	20,214	21.1	87,738	4.85
2003	1.17	14.2	69,069	0.80	3.36	486,047	20,532	23.7	86,877	5.59
2004	1.17	14.5	77,899	0.90	3.48	535,463	22,364	23.9	86,352	6.20
2005	1.16	13.7	75,576	0.85	3.26	549,975	23,210	23.7	88,571	6.21
2006	1.16	13.7	75,083	0.86	3.17	548,014	23,705	23.1	87,236	6.28
2007	1.18	15.3	86,582	1.15	3.49	566,605	24,825	22.8	75,505	7.50
Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>ICT Telecommunication Services</b>										
2000	2.64	62.2	239,549	0.37	7.94	385,398	30,158	12.8	650	0.59
2001	2.38	58.1	254,768	0.38	7.58	438,843	33,612	13.1	678	0.65
2002	2.41	58.5	312,087	0.40	8.63	533,299	36,161	14.7	788	0.68
2003	2.36	57.6	332,572	0.42	7.86	577,079	42,314	13.6	800	0.72
2004	2.00	50.1	307,626	0.44	7.09	613,984	43,397	14.1	701	0.88
2005	1.98	49.6	387,609	0.58	9.89	782,042	39,181	20.0	674	1.16
2006	2.00	50.0	413,879	0.75	8.12	827,963	50,978	16.2	554	1.49
2007	1.94	48.4	424,919	0.77	8.33	877,070	51,035	17.2	550	1.59
Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>ICT Computer Services Sector (Total)</b>										
2000	1.63	38.7	100,968	2.71	2.14	260,990	47,203	5.53	37,282	7.00
2001	1.60	37.4	115,717	2.39	2.21	309,487	52,474	5.90	48,496	6.38
2002	1.41	29.2	101,822	2.28	2.04	348,641	49,842	6.99	44,640	7.81
2003	1.50	33.3	100,158	2.11	1.83	300,432	54,722	5.49	47,493	6.33
2004	1.64	38.8	100,280	2.07	1.77	258,172	56,721	4.55	48,379	5.34
2005	1.63	38.7	100,036	2.24	1.91	258,432	52,474	4.92	44,621	5.79
2006	1.58	36.6	101,847	2.78	1.88	278,085	54,059	5.14	36,606	7.60
2007	1.60	37.6	104,844	2.56	1.96	278,733	53,373	5.22	41,032	6.79

## ICT Productivity Indicators: Production / Telecommunication / Computer

Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>Manufacture of Office, Accounting and Computing Machinery (30000)</b>										
2000	1.13	11.6	63,894	1.16	3.52	552,472	18,177	30.4	55,174	10.01
2001	1.11	9.8	57,149	0.96	2.86	583,379	19,951	29.2	59,253	9.85
2002	1.13	11.2	82,506	1.47	4.01	736,246	20,559	35.8	55,943	13.16
2003	1.11	10.3	105,945	1.46	4.96	1,032,305	21,375	48.3	72,380	14.26
2004	1.15	12.7	120,064	1.62	5.13	943,148	23,411	40.3	74,105	12.73
2005	1.15	13.3	105,168	1.13	4.30	792,451	24,471	32.4	92,888	8.53
2006	1.13	11.7	90,430	1.05	3.76	775,944	24,070	32.2	86,436	8.98
2007	1.20	16.7	117,385	1.72	4.80	701,214	24,456	28.7	68,359	10.26
Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>Telephone services (fixed line, public and cellular) (64201)</b>										
2000	2.89	65.4	258,131	0.37	8.72	394,590	29,607	13.3	697.9	0.57
2001	2.50	60.0	271,734	0.37	8.22	453,108	33,076	13.7	732.0	0.62
2002	2.62	61.8	345,974	0.39	9.82	559,578	35,248	15.9	883.4	0.63
2003	2.51	60.2	361,084	0.40	8.81	599,503	40,999	14.6	897.8	0.67
2004	2.06	51.5	340,284	0.46	8.38	660,274	40,586	16.3	741.9	0.89
2005	1.95	48.7	388,878	0.52	11.55	799,282	33,678	23.7	748.5	1.07
2006	2.11	52.6	450,213	0.64	9.26	855,981	48,641	17.6	706.5	1.21
2007	2.04	48.3	428,700	0.60	8.65	807,857	50,704	17.0	711.0	1.20
Year	Productivity: Output / Input	Added Value Content	Added Value per Employee	Added Value per Fixed Assets	Added Value per Labour Cost	Labour Productivity	Labour Cost per Employee	Unit Labour Cost	Capacity Intensity	Capital Productivity
	Ratio	%	RM	Ratio	Ratio	RM	RM	Ratio	RM	Ratio
<b>Hardware consultancy services (72100)</b>										
2000	2.32	56.9	87,570	4.35	1.52	153,995	57,556	2.7	20,134	7.65
2001	1.43	30.2	93,220	1.83	1.79	308,873	52,112	5.9	51,061	6.05
2002	1.34	25.3	99,290	2.93	1.90	392,517	52,135	7.5	33,833	11.60
2003	1.35	25.9	105,852	2.61	1.51	408,506	69,991	5.8	40,573	10.07
2004	1.77	43.5	125,863	2.16	1.66	289,172	75,599	3.8	58,165	4.97
2005	1.54	35.2	110,381	1.81	2.21	313,894	49,900	6.3	60,999	5.15
2006	1.57	36.2	97,084	2.10	2.01	268,203	48,190	5.6	46,197	5.81
2007	1.68	40.6	117,673	1.80	1.93	289,669	61,035	4.7	65,328	4.43

## ICT Productivity Indicators: Example at 5-Digit Level

1	Electrical, plumbing and other construction installation activities (Group 432) e.g. Telecommunications (43212) and computer (43213) wiring;				
2	Wholesale trade, except of motor vehicles and motorcycles (Group 46) e.g. Wholesale of computer-controlled machine tools (46593);				
3	Retail sales of information and communications equipment in specialized stores (Group 474) e.g. Internet based retail sales (47912) and auction sales (47914)				
4	Publishing of books, periodicals and other publishing activities (581). e.g. Publishing in print or electronic form (58130) , including Internet				
5	Software Publishing (582) e.g. Computer games of all platforms (58202)				
6	Motion picture, video and television programme activities under the Group 591 e.g. production and distribution of motion pictures				
7	Sound recording and music publishing activities (59200) e.g online music publishing				
8	Other information service activities (639) e.g Telephone based information services;				
9	Credit card services (64922)				
10	Research and development on Information Communication Technology (ICT) (72106)				
11	Leasing of intellectual property and similar products, except copyrighted works (77440)				
12	Photocopying, document preparation and other specialized office support activities (8219) e.g. Typing, word processing or desktop publishing (82192),				
13	Activities of call centres (82200)				
14	Energy, telecommunication and postal affairs (84136)				
15	Education (Division 85) e.g. Computer Training (80909).				

## Gaps in the MSIC 2000 & MSIC 2008: Industry Perspective

# Other ICT Indicators

- 1) Merchandized trade (DOSM)
- 2) Trade-in-Services (BOP / BNM)
- 3) ICT Workforce Estimation at household level (MLFS)
- 4) Regulatory records on telecommunication (MICC/MCMC)
- 5) Administrative records on supply of ICT graduates (MOHE)
- 6) R&D records (MOSTI / MASTIC)
- 7) Administrative records on Internet Domain Registration (IDR)
- 8) Administrative records on Cyber Security
- 9) Intellectual Property Rights (IPR) records (MyIPO)
- 10) Internet / Mobile banking (BNM)
- 11) Private sector data (PIKOM/IDC/Gartner)
- 12) Global benchmarking (various international organizations)

**Other ICT Data Sources:  
Sector & enabler of society & economy**



**Thank You**

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