18th PRODUCTIVITY REPORT

MALAYSIA PRODUCTIVITY CORPORATION

May 2011

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CONTENTS

MALAYSIA PRODUCTIVITY CORPORATION

Malaysia Productivity Corporation (MPC) was established to assume an important role in the enhancement of productivity and quality of the country towards achieving a higher national economic growth.

To realise the above, MPC has formulated a strategic operation based on the following vision, mission and objectives.

VISION

The leading organisation in productivity enhancement for global competitiveness and innovation.

MISSION

To deliver high impact services towards achieving performance excellence through innovation for the betterment of life.

OBJECTIVES

Our corporate objectives are:

Providing value-added information on productivity, quality, competitiveness and best practices through research activities and databases;

Developing human capital and organisational excellence for building a knowledge-based society through training, systems development and best practices; and

Nurturing innovative and creative culture for productivity and competitiveness through partnership programmes.

PRODUCTIVITY PERFORMANCE OF MALAYSIA

Malaysia's Productivity Performance

Malaysia's journey towards achieving high income economy was gaining momentum as reflected by a remarkable leap in its competitiveness ranking from 18th position in 2009 to 10th position in 2010. The impetus to achieve developed nation aspiration was further supported with the launching of several national programmes in 2010.

Malaysia's productivity performance grew by 5.8% to RM51,591 in 2010. The productivity growth was driven mainly by both the manufacturing (9.4%) and services sectors (4.7%). As anticipated, the manufacturing sector recorded a much higher growth than the national growth of 5.8% caused mainly by improved industrial production.

The overall productivity performance was also supported by commendable expansion in the communication (6.6%), real estate & business services (5.9%), transport & storage (5.7%), utilities (5.6%) and wholesale & retail trade (5.2%) sub-sectors.

International Productivity Performance

In 2010, Malaysia registered the highest productivity growth of 5.8% compared with Organisation of Economic Cooperation and Development (OECD) countries, like Republic of Korea (4.9%), Japan (4.1%), Sweden (4.4%) Germany (3.5%), USA (2.7%) and Finland (2.7%). The average productivity growth of the OECD countries was 2.8% in 2010.

Developed economies continue to register high productivity levels but registered lower productivity growth due to their matured economies such as Japan (USD80,307; 4.1%), the USA (USD80,284: 3.2%) and United Kingdom (USD59,276; 1.8%). Productivity levels of these three countries were four to six times higher than Malaysia at USD13,577.

In contrast, developing economies experienced higher productivity growth in line with their economic expansion and dynamism. For example, China (level: USD4,087; growth: 10%), India (level: USD2,736; growth: 6.7%) and Thailand (level: USD4,854; growth: 5.9%). In this regard, Malaysia's productivity level of USD13,577 was higher than these countries.

Total Factor Productivity

During the period 2006-2010, the GDP growth of 4.6% was supported by productivity growth of 2.9% and 1.6% employment growth. The growth in productivity was derived fromTFP growth of 1.7% and capital intensity of 1.3% during the same period.

During the period of 2001-2010, the growth in TFP was 1.5%; contribution of TFP to national economic growth was 32.9% while capital contributed 37.7% and labour 29.4%.

This is an indication that economic growth was fuelled by more capital-intensive inputs rather than labour-intensive production indicating that the country was moving towards both investment in state of the art technologies and inculcating a knowledge-based economy.

Transformation of MPC

In line with the Government's initiatives to move the country forward, MPC has been revamped, focusing in the areas of competitiveness and innovation in 2010.

With the goal of building a forward-looking, responsive and dynamic MPC, a five-departmental model that integrates innovation and productivity activities together with regulatory review collaboration was established namely, Regulatory Review, Enterprise Innovation, Business Excellence, Global Competitiveness and Knowledge Management. Through these core functions, MPC will monitor, review, assess and provide recommendations for policy and regulatory changes, improve enterprise innovation by creating and implementing eco systems to address the entire innovation value chain. MPC will also measure and certify companies and show-case models to spur competition and set best practices for others to emulate. Global competitiveness benchmarks will also be developed as well as generating knowledge based on productivity and innovation.

Outlook for 2011

A more optimistic global economic outlook has replaced concerns about the risk of a possible recession. Malaysia's GDP growth in 2011 should stabilise to 5.5%. With the Asian economies expected to be the main drivers of global economic growth in 2011, most economists are expecting them to continue driving global productivity growth. Malaysia's productivity for 2011 is anticipated to grow by more than 4.7%.

The productivity of the services sector is expected to grow by more than 4.3% in 2011. The performance will be supported mainly by communication, transport & storage, utilities and finance & insurance sub-sectors.

Productivity in the manufacturing sector which recorded a significant 9.4% growth in 2010, could ease to 5.3% in 2011 taking into consideration the softening of the global market which will have an impact on external demand for Malaysia's manufactured export.

The services sector is expected to grow more than 4.3% in 2011 led by communication, utilities and transport & storage sub-sectors. The agriculture sector is expected to register a productivity growth by more than 4.8%. The sector has been identified as one of the leading sectors in NKEA. The construction sector is targeted to post a productivity growth of more than 3.5% in 2011. The sector is to benefit from the projects implemented under the ETP amounting to RM200 billion.

PART 1

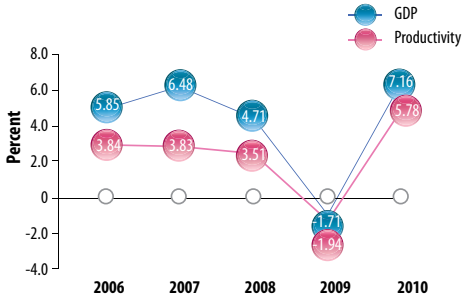
Towards a Productivity and Innovation Driven Economy

CHAPTER 1
Productivity Performance of Malaysia

CHAPTER 2
Total Factor Productivity

PRODUCTIVITY PERFORMANCE OF MALAYSIA

Gross Domestic Product (GDP) and Productivity Growth, 2006-2010



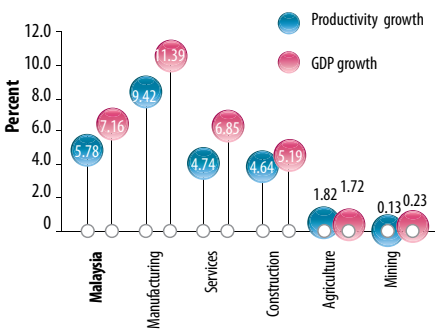
Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

Productivity Level and Growth, 2010

Economic Activities	Level RM	Growth (%)
Agriculture	27,680	1.82
Mining	948,181	0.13
Manufacturing	54,392	9.42
Construction	23,898	4.64
Services	50,967	4.74
Utilities	163,423	5.55
Wholesale and Retail	42,209	5.18
Accommodation and Restaurant	16,868	3.81
Transport and Storage	41,887	5.73
Communication	130,459	6.63
Finance and Insurance	95,436	4.25
Real Estate and Business Services	203,718	5.89
Other Services	26,112	1.67
Malaysia	**51,591**	**5.78**

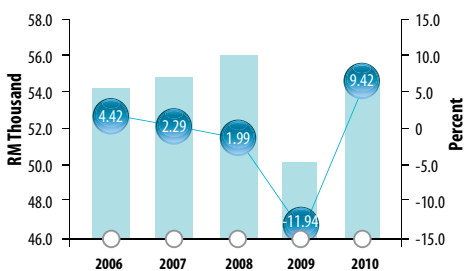
Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

Productivity and GDP Growth of the Economic Sectors, 2010



Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

Productivity Level & Growth of the Manufacturing Sector, 2006-2010



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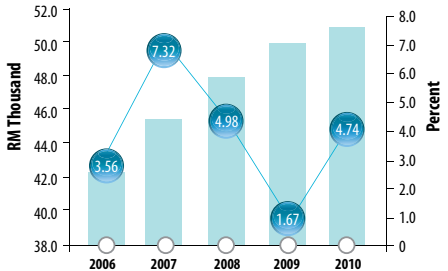
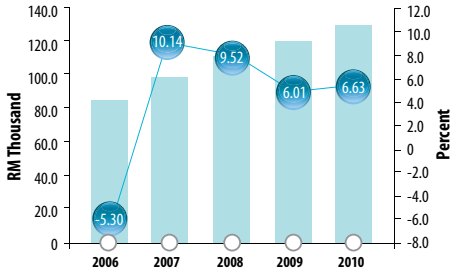
- Economic Report, Ministry of Finance, Malaysia

Productivity Level & Growth of the Services Sector, 2006-2010



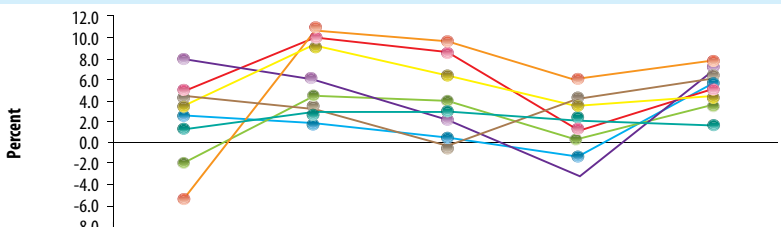
Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

Productivity Level & Growth of the Communication Sub-sector, 2006-2010



Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

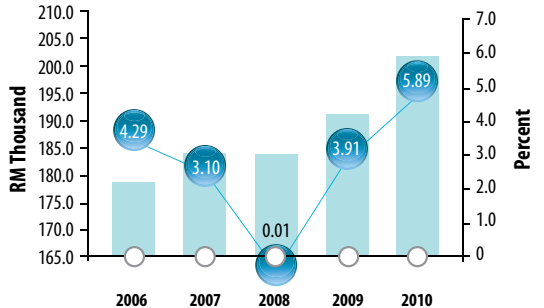
Productivity Growth of the Services Sectors, 2006-2010



	2006	2007	2008	2009	2010
Utilities	2.64	2.05	0.47	-1.22	5.55
Wholesale and Retail Trade	5.03	10.09	8.67	1.03	5.18
Accom. and Restaurant	-1.65	4.63	4.15	0.59	3.81
Transport and Storage	7.92	6.05	2.22	-3.31	5.73
Communication	-5.30	10.14	9.52	6.01	6.63
Finance and Insurance	3.44	9.35	6.43	3.84	4.25
Real Estate and Business Services	4.29	3.10	0.01	3.91	5.89
Other Services	1.59	2.69	3.14	2.39	1.67

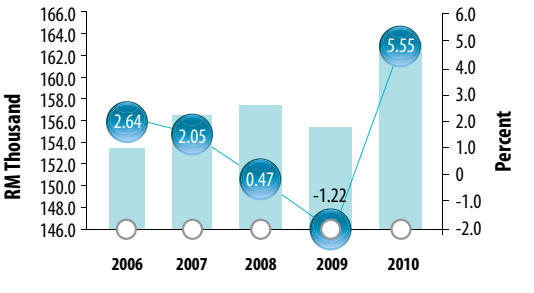
Computed from : - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia

Productivity Level & Growth of the
Real-Estate & Business Services Sub-sector, 2006-2010



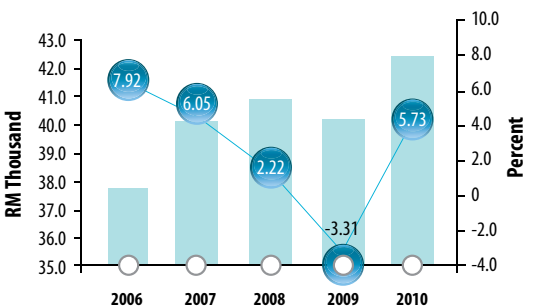
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth
of the Utilities Sub-sector, 2006-2010



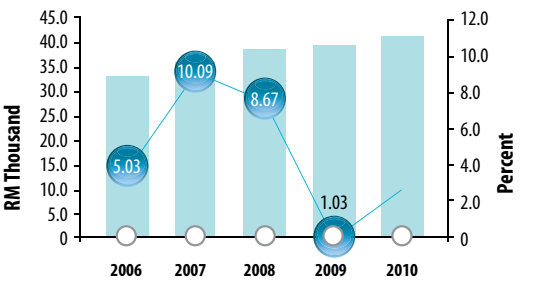
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the
Transport & Storage Sub-sector, 2006-2010



Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the
Wholesale and Retail Trade Sub-sector, 2006-2010



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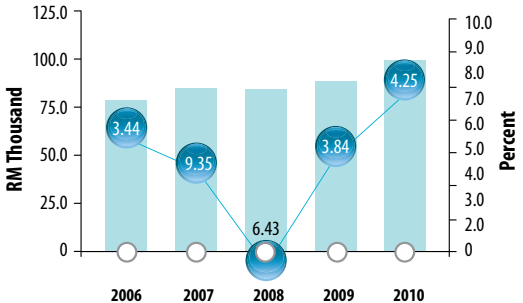
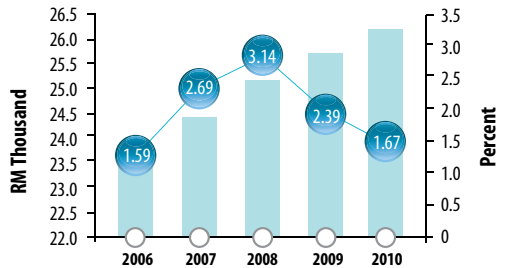
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Finance and Insurance Sub-sector, 2006-2010



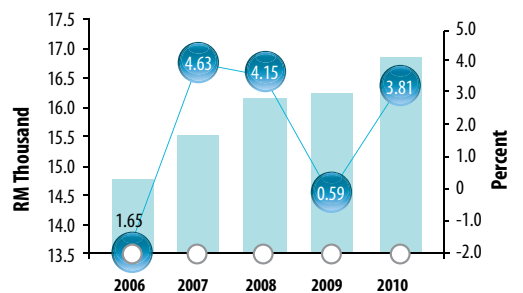
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Other Services Sub-sector, 2006-2010



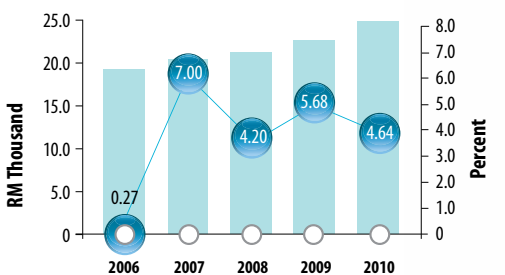
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Accommodation & Restaurant Sub-sector, 2006-2010



Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Construction Sector, 2006-2010



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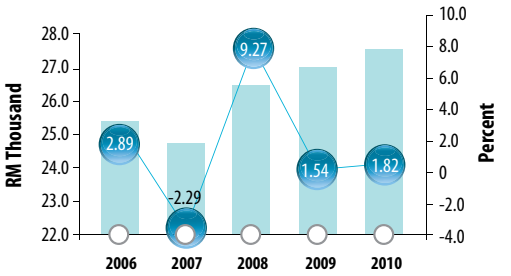
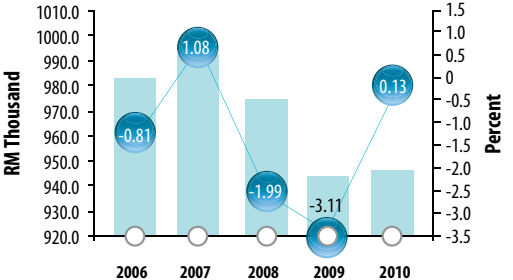
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Agriculture Sector, 2006-2010



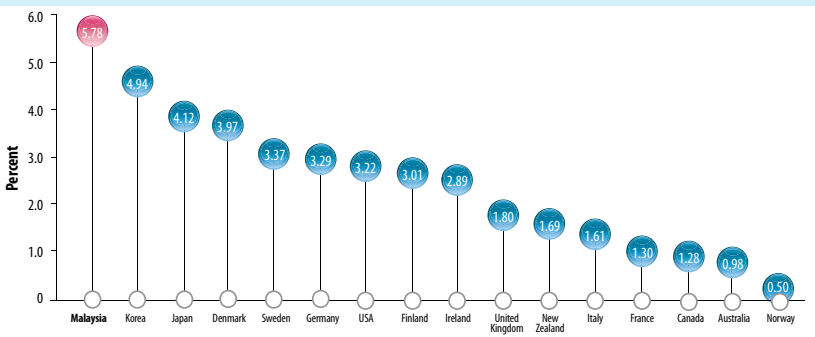
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Level & Growth of the Mining Sector, 2006-2010



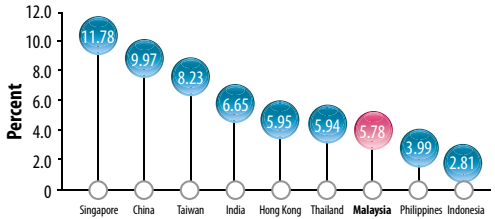
Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Productivity Growth of Malaysia and Selected OECD Countries, 2010



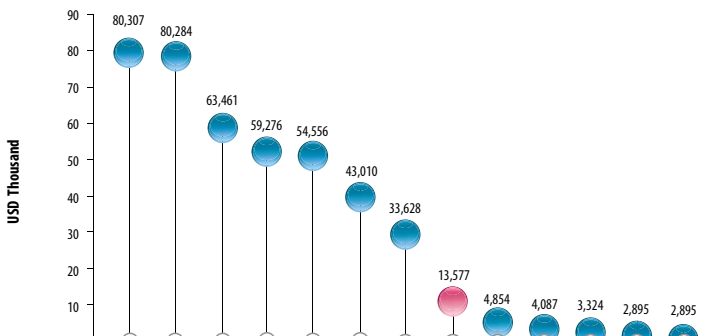
Computed from :
- *Economic Report, Ministry of Finance, Malaysia, various issues*
- *OECD Economic Outlook, Vol. 86 Database*
- *National Account of OECD Countries, Detailed Tables, Vol. ii 2009*

Productivity Growth of Malaysia and Selected Asian Countries, 2010



Computed from :
- *Economic Report, Ministry of Finance, Malaysia, various issues*
- *Country Data, The Economist Intelligent Unit*
- *Market Indicator and Forecast, The Economist Intelligent Unit*

Productivity Levels and Growth of Selected Countries, 2010



Productivity Growth (%)	4.12	3.22	5.96	1.80	11.78	8.23	4.94	5.78	5.94	9.97	3.99	2.81	6.65

Computed from:
- *Economic Report, Ministry of Finance, Malaysia, various issues*
- *Country Data, The Economist Intelligent Unit*
- *Market Indicator and Forecast, The Economist Intelligent Unit*

Productivity Growth, 2011

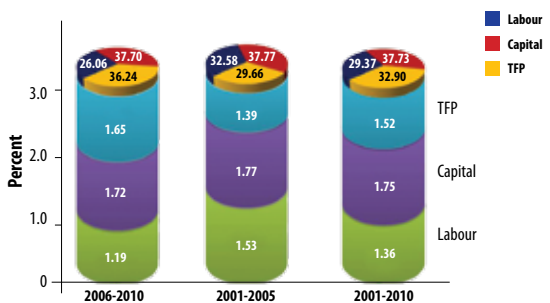
Economic Activities	Growth (%)
Agriculture	4.78
Mining	2.13
Manufacturing	5.33
Construction	3.51
Services	4.30
Utilities	5.47
Wholesale and Retail	4.17
Accommodation and Restaurant	3.51
Transport and Storage	5.37
Communication	6.78
Finance and Insurance	4.03
Real Estate and Business Services	4.73
Other Services	3.36
Malaysia	**4.65**

Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

TFP Contribution to Productivity Growth, 2006-2010

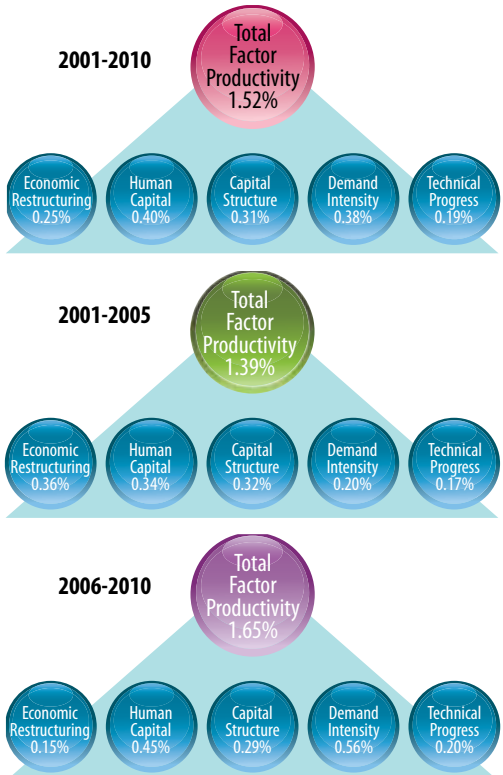
Computed from : - *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Growth and Contribution of GDP, TFP, Capital and Labour (%)



Computed from : - *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Components of TFP Growth



Computed from : - *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Enrolment in Higher Education Institutions by Level of Study, 2006-2010

Level of Study	2006	2007	2008	2009	2010
Certificate	112,922	124,225	111,125	122,260	126,089
Diploma	240,189	271,918	296,296	350,873	375,699
First Degree	348,369	388,580	427,083	478,221	515,118
Masters	36,824	34,755	44,634	58,252	66,822
PhD	9,612	11,124	13,574	16,947	20,235
Total	747,916	830,602	892,712	1,028,553	1,103,963

Source: Malaysia Plan, Various Issues

Approved Investment in the Manufacturing Sector

	Foreign Direct Investment (RM Billion)	Domestic (RM Billion)	Total Investment (RM Billion)
2001	16.02	5.24	21.26
2005	17.88	13.17	31.05
2006	20.22	25.77	45.99
2010	29.06	18.12	47.18

Sources: Malaysian Industrial Development Authority

Malaysia's External Trade, 2001-2010

Year	Total Export (RM Billion)	Total Import (RM Billion)	Trade Balance (RM Billion)
2001	334.28	280.23	54.05
2005	536.23	432.87	103.36
2006	588.97	480.77	108.19
2010	639.43	529.19	110.23

Sources: Malaysia External Trade Development Corporation

Employment Share by Economic Sectors (%)

	Agriculture	Mining	Manufacturing	Construction	Services
2001 - 2005	14.02	0.40	27.58	7.62	50.36
2006 - 2010	12.10	0.40	28.40	6.62	52.54

Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

TFP of the Economic Sectors, 2001-2010 (%)

	Agriculture	Mining	Manufacturing	Construction	Utilities	Transport	Wholesale and Retail Trade	Finance	Others
GDP	2.89	0.75	3.65	2.73	4.68	6.02	6.39	7.09	4.40
Labour	0.77	0.32	0.95	0.09	1.52	2.50	1.79	2.65	1.90
Capital	0.75	1.25	1.77	1.85	1.84	1.83	2.58	2.44	1.50
TFP	1.38	0.18	0.91	0.79	1.32	1.70	2.03	1.99	1.00

Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

TFP of the Economic Sectors, 2001-2005 (%)

	Agriculture	Mining	Manufacturing	Construction	Utilities	Transport	Wholesale and Retail Trade	Finance	Others
GDP	3.19	2.32	4.75	0.95	5.42	5.72	5.10	6.05	4.10
Labour	1.05	0.39	1.69	0.10	2.48	3.94	2.46	4.07	2.26
Capital	0.41	0.44	1.99	0.74	1.74	0.84	1.70	1.03	1.29
TFP	1.73	1.49	1.08	0.11	1.20	0.94	0.94	0.96	0.54

Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

TFP of the Economic Sectors, 2006-2010 (%)

	Agriculture	Mining	Manufacturing	Construction	Utilities	Transport	Wholesale and Retail Trade	Finance	Others
GDP	2.59	-0.82	2.55	4.51	3.94	6.32	7.68	8.13	4.73
Labour	0.48	0.24	0.21	0.08	0.56	1.05	1.11	1.24	1.60
Capital	1.09	0.06	1.56	2.96	1.93	2.81	3.45	3.86	1.72
TFP	1.03	-1.12	0.78	1.47	1.44	2.45	3.12	3.03	1.42

Computed from :
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*

Total Factor Productivity Growth of the Selected Countries (%)

	2003-2010	2003-2006	2007-2010
USA	0.28	0.88	-0.31
Australia	-1.25	-0.62	-1.88
China	4.11	4.20	4.03
Hong Kong	2.27	4.07	0.46
India	2.58	3.24	1.92
Japan	0.07	1.21	-1.06
Malaysia	2.56	2.89	2.22
Singapore	0.65	3.16	-1.86
South Korea	1.95	2.25	1.64
Thailand	1.63	2.59	0.68

Source: The Conference Board Total Economy Database, January 2011

Contribution of TFP, Labour, Non-ICT Capital Services and ICT Capital Services to the Economic Growth (%)

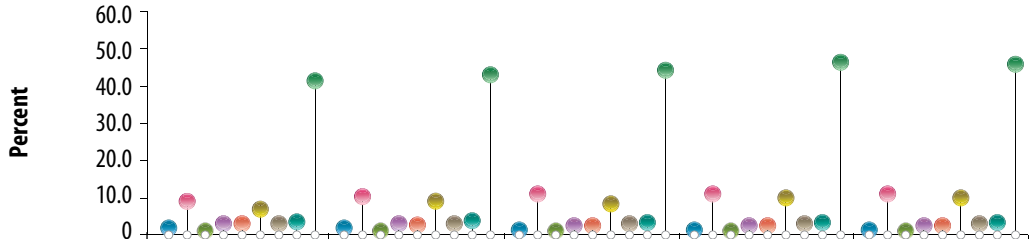
	USA	Australia	China	Hong Kong	India	Japan	Malaysia	Singapore	South Korea	Thailand
GDP										
2003-2010	1.75	2.89	11.42	4.68	8.32	0.95	4.99	6.16	3.80	4.51
2003-2006	2.95	3.46	12.08	6.40	8.80	2.03	5.94	6.32	4.14	5.83
2007-2010	0.55	2.32	10.75	2.96	7.85	-0.13	4.05	6.00	3.45	3.19
TFP										
2003-2010	0.28	-1.25	4.11	2.27	2.58	0.07	2.56	0.65	1.95	1.63
2003-2006	0.88	-0.62	4.20	4.07	3.24	1.21	2.89	3.16	2.25	2.59
2007-2010	-0.31	-1.88	4.03	0.46	1.92	-1.06	2.22	-1.86	1.64	0.68
Contribution of Non-ICT Capital Services Growth in GDP Growth										
2003-2010	0.52	1.73	5.64	0.72	3.43	0.33	1.34	0.47	1.06	1.55
2003-2006	0.52	1.46	5.55	0.71	3.04	0.33	1.15	-0.13	1.05	1.41
2007-2010	0.52	2.00	5.72	0.73	3.81	0.34	1.53	1.07	1.07	1.69
Contribution of ICT Capital Services Growth in GDP Growth										
2003-2010	0.45	1.03	1.09	0.24	0.85	0.22	0.64	0.37	0.29	0.33
2003-2006	0.42	1.03	1.09	0.26	0.78	0.18	0.63	0.40	0.24	0.31
2007-2010	0.48	1.04	1.08	0.22	0.92	0.25	0.64	0.34	0.34	0.35
Contribution of Labour Composition Growth in GDP Growth										
2003-2010	0.21	0.19	0.14	0.17	0.15	0.23	0.17	0.60	0.40	0.43
2003-2006	0.28	0.20	0.14	0.18	0.14	0.30	0.17	0.58	0.54	0.39
2007-2010	0.14	0.18	0.14	0.17	0.15	0.15	0.17	0.63	0.27	0.46

Source: The Conference Board Total Economy Database, January 2011

PART 2

Elevating the Economy to Greater Heights

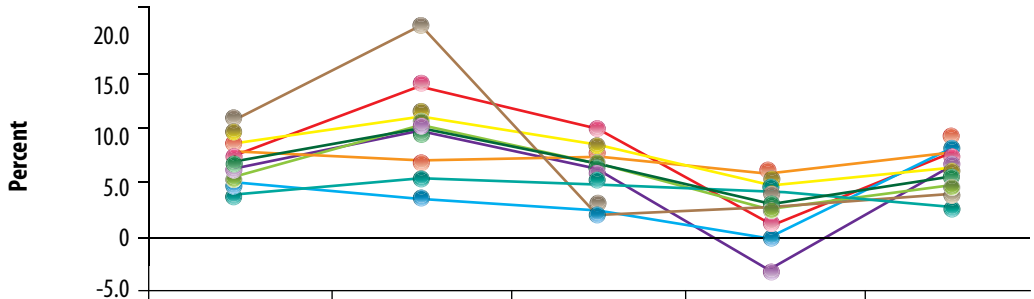
Contribution of Services Sector to GDP



	2006	2007	2008	2009	2010
Utilities	2.97	2.90	2.84	2.89	2.92
Wholesale and Retail Trade	11.22	12.02	12.63	12.95	13.06
Accom. and Restaurant	2.19	2.27	2.33	2.42	2.38
Transport and Storage	3.56	3.68	3.74	3.68	3.68
Communication	3.64	3.65	3.75	4.03	4.09
Finance and Insurance	9.94	10.34	10.71	11.41	11.31
Real Estate and Business Services	4.64	5.21	5.09	5.28	5.31
Other Services	5.57	5.52	5.56	5.89	5.72
Services Sector	**43.73**	**45.60**	**46.65**	**48.55**	**48.45**

Computed from:
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*
- *Economic Planning Unit, Malaysia*

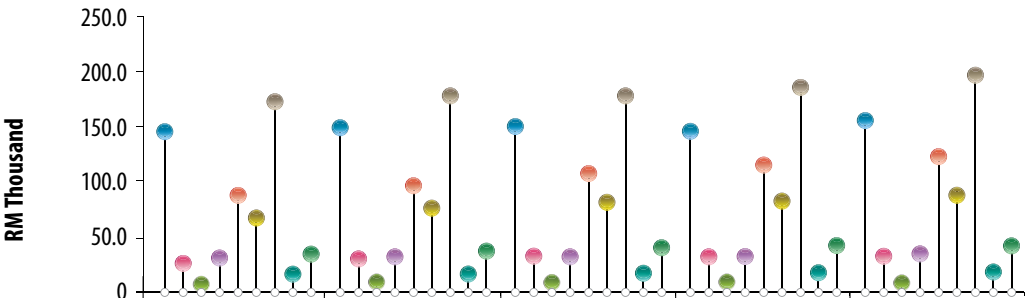
Output Growth of Services Sector



	2006	2007	2008	2009	2010
Utilities	4.85	4.01	2.14	0.38	8.22
Wholesale and Retail Trade	6.99	14.20	9.77	1.17	7.91
Accom. and Restaurant	5.60	10.34	7.28	2.76	4.95
Transport and Storage	6.40	10.12	6.09	-2.85	6.90
Communication	7.68	7.00	7.28	5.95	8.55
Finance and Insurance	7.73	10.74	8.27	5.10	6.12
Real Estate and Business Services	10.88	19.51	2.06	2.38	7.79
Other Services	4.49	5.52	5.27	4.39	3.97
Services Sector	**7.02**	**11.05**	**6.90**	**2.68**	**6.85**

Computed from: *- Department of Statistics, Malaysia*
- Economic Report, Ministry of Finance, Malaysia

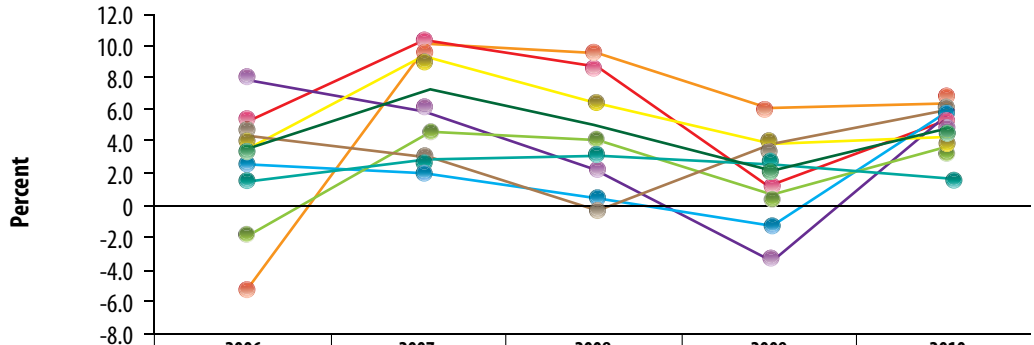
Productivity Level of Services Sector



	2006	2007	2008	2009	2010
Utilities	152.87	156.01	156.74	154.83	163.42
Wholesale and Retail Trade	33.20	36.55	39.72	40.13	42.21
Accom. and Restaurant	14.82	15.51	16.15	16.25	16.87
Transport and Storage	37.80	40.08	40.97	39.62	41.89
Communication	95.67	105.37	115.41	122.35	130.46
Finance and Insurance	75.76	82.84	88.16	91.55	95.44
Real Estate and Business Services	179.57	185.14	185.15	192.39	203.72
Other Services	23.68	24.32	25.08	25.68	26.11
Services Sector	**42.48**	**45.59**	**47.86**	**48.66**	**50.97**

Computed from: *- Department of Statistics, Malaysia*
- Economic Report, Ministry of Finance, Malaysia

Productivity Growth of Services Sector



	2006	2007	2008	2009	2010
Utilities	2.64	2.05	0.47	-1.22	5.55
Wholesale and Retail Trade	5.03	10.09	8.67	1.03	5.18
Accom. and Restaurant	-1.65	4.63	4.15	0.59	3.81
Transport and Storage	7.92	6.05	2.22	-3.31	5.73
Communication	-5.30	10.14	9.52	6.01	6.63
Finance and Insurance	3.44	9.35	6.43	3.84	4.25
Real Estate and Business Services	4.29	3.10	0.01	3.91	5.89
Other Services	1.59	2.69	3.14	2.39	1.67
Services Sector	**3.56**	**7.32**	**4.98**	**1.67**	**4.74**

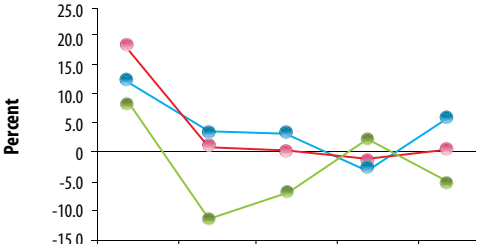
Computed from:
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*
- *Economic Planning Unit, Malaysia*

TFP Growth and Contributions, 2001-2010

Services Sub-sectors	TFP Growth (%)	Contribution to Output Growth (%)		
		TFP	Capital	Labour
Trade	2.0	31.2	40.6	28.1
Finance	1.9	27.5	34.7	37.7
Transport	1.6	27.4	30.7	41.9
Utilities	1.4	28.8	38.9	32.3
Other Services	1.0	22.6	33.9	43.5
Services Sector	**1.6**	**27.8**	**35.8**	**36.5**

Computed from: - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia
- Economic Planning Unit, Malaysia

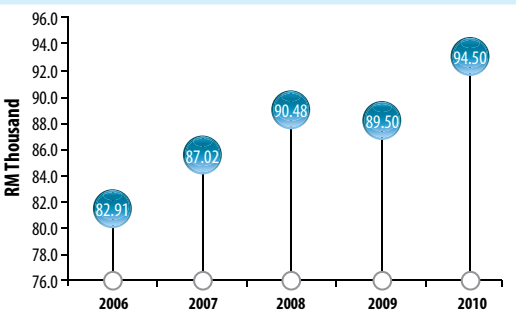
Growth of Labour Cost Competitiveness of the Logistics Services



	2006	2007	2008	2009	2010
Productivity	12.50	4.96	3.97	-1.09	5.60
Labour Cost per Employee	18.95	1.91	0.95	-0.99	0.66
Unit Labour Cost	8.85	-10.05	-6.75	1.45	-5.19

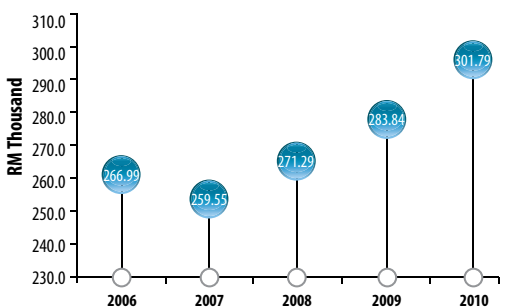
Computed from: Department of Statistics, Malaysia

Productivity Level of the Logistics Services



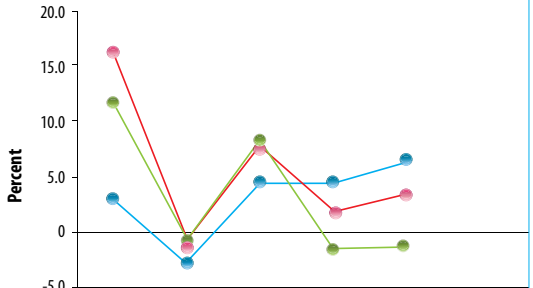
Computed from: Department of Statistics, Malaysia

Productivity Level of the Information and Communication Technology (ICT) Services



Computed from: Department of Statistics, Malaysia

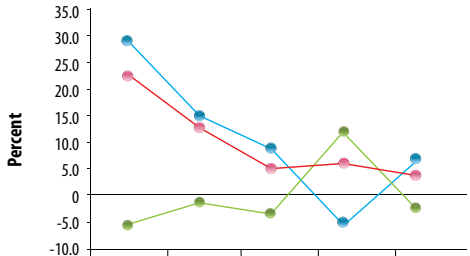
Growth of Labour Cost Competitiveness of the Information and Communication Technology (ICT) Services



	2006	2007	2008	2009	2010
Productivity	3.18	-2.79	4.53	4.62	6.32
Labour Cost per Employee	16.15	-0.35	7.48	2.12	3.29
Unit Labour Cost	11.73	-0.14	8.07	-1.48	-1.30

Computed from: Department of Statistics, Malaysia

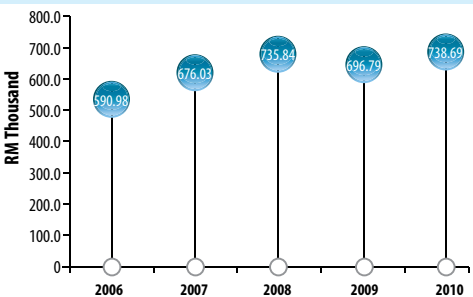
Growth of Labour Cost Competitiveness of the Wholesale and Retail Trade Services



	2006	2007	2008	2009	2010
Sales Value per Employee	29.18	14.39	8.85	-5.31	6.01
Labour Cost per Employee	22.43	12.94	5.25	6.02	3.71
Unit Labour Cost	-5.23	-1.27	-3.30	11.96	-2.17

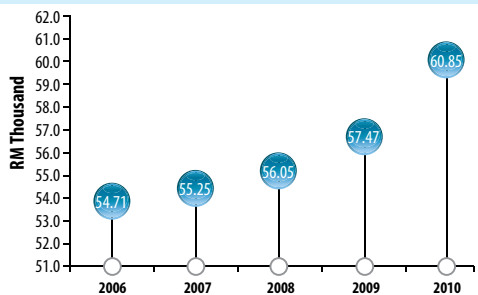
Computed from: Department of Statistics, Malaysia

Sales Value per Employee of the Wholesale and Retail Trade Services



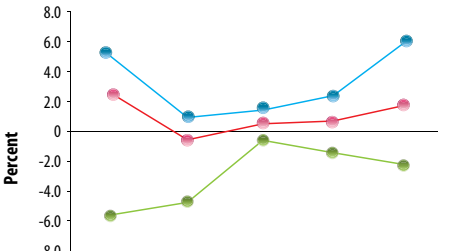
Computed from: Department of Statistics, Malaysia

Productivity Level of the Business and Professional Services



Computed from: Department of Statistics, Malaysia

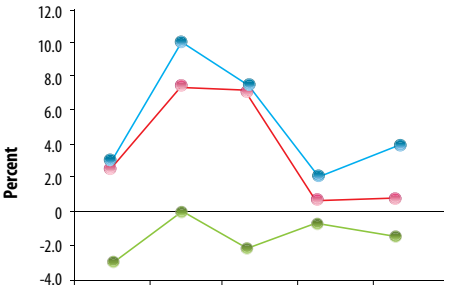
Growth of Labour Cost Competitiveness of the Business and Professional Services



	2006	2007	2008	2009	2010
Productivity	5.16	0.97	1.46	2.53	5.88
Labour Cost per Employee	2.38	-0.53	0.47	0.73	1.71
Unit Labour Cost	-5.53	-4.67	-0.59	-1.35	-2.01

Computed from: Department of Statistics, Malaysia

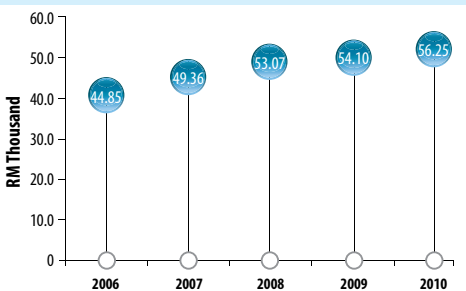
Growth of Labour Cost Competitiveness of the Tourism Services



	2006	2007	2008	2009	2010
Productivity	2.62	10.06	7.50	1.95	3.96
Labour Cost per Employee	2.80	7.34	7.33	0.61	0.80
Unit Labour Cost	-3.04	-0.07	-2.13	-0.52	-1.47

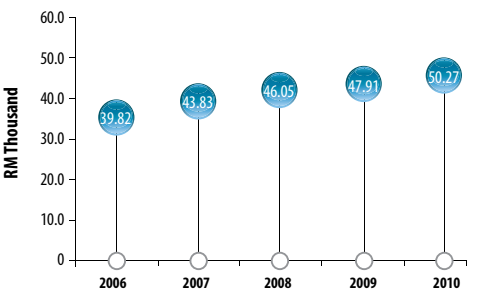
Computed from: Department of Statistics, Malaysia

Productivity Level of the Tourism Services



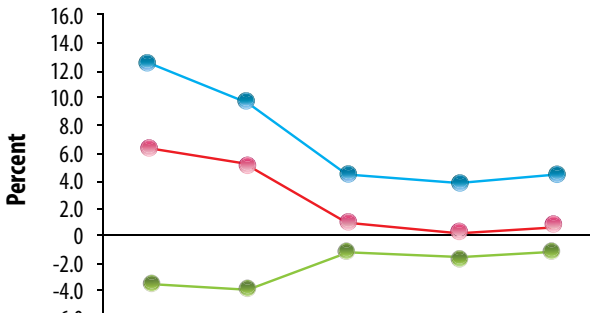
Computed from: Department of Statistics, Malaysia

Productivity Level of the Private Education Services



Computed from: Department of Statistics, Malaysia

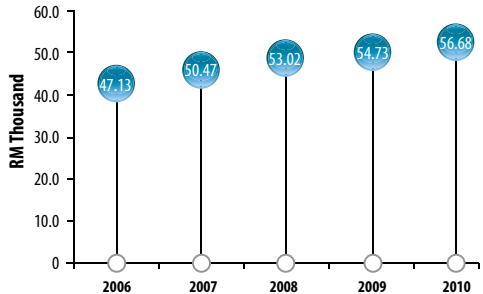
Growth of Labour Cost Competitiveness of the Private Education Services



	2006	2007	2008	2009	2010
Productivity	13.51	10.06	5.07	4.03	4.93
Labour Cost per Employee	7.21	5.91	1.74	0.55	1.30
Unit Labour Cost	-3.40	-3.74	-0.55	-1.00	-0.90

Computed from: Department of Statistics, Malaysia

Productivity Level of the Healthcare Services



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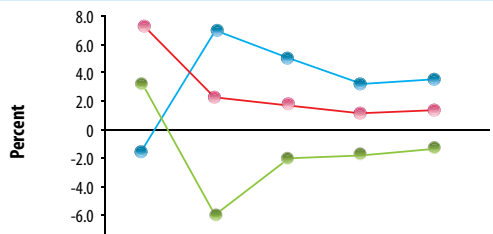
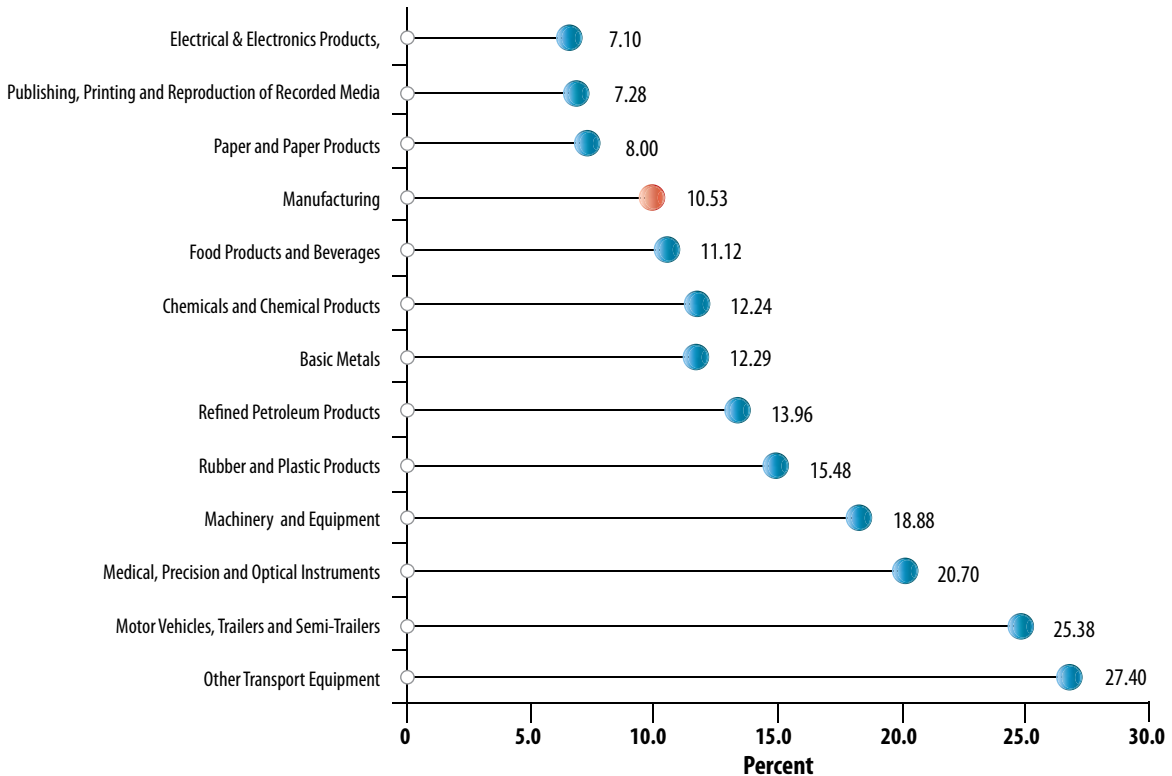
Growth of Labour Cost Competitiveness of the Healthcare Services



	2006	2007	2008	2009	2010
Productivity	-1.65	7.10	5.05	3.21	3.57
Labour Cost per Employee	7.20	2.18	1.70	1.05	1.41
Unit Labour Cost	3.33	-6.08	-2.03	-1.75	-1.26

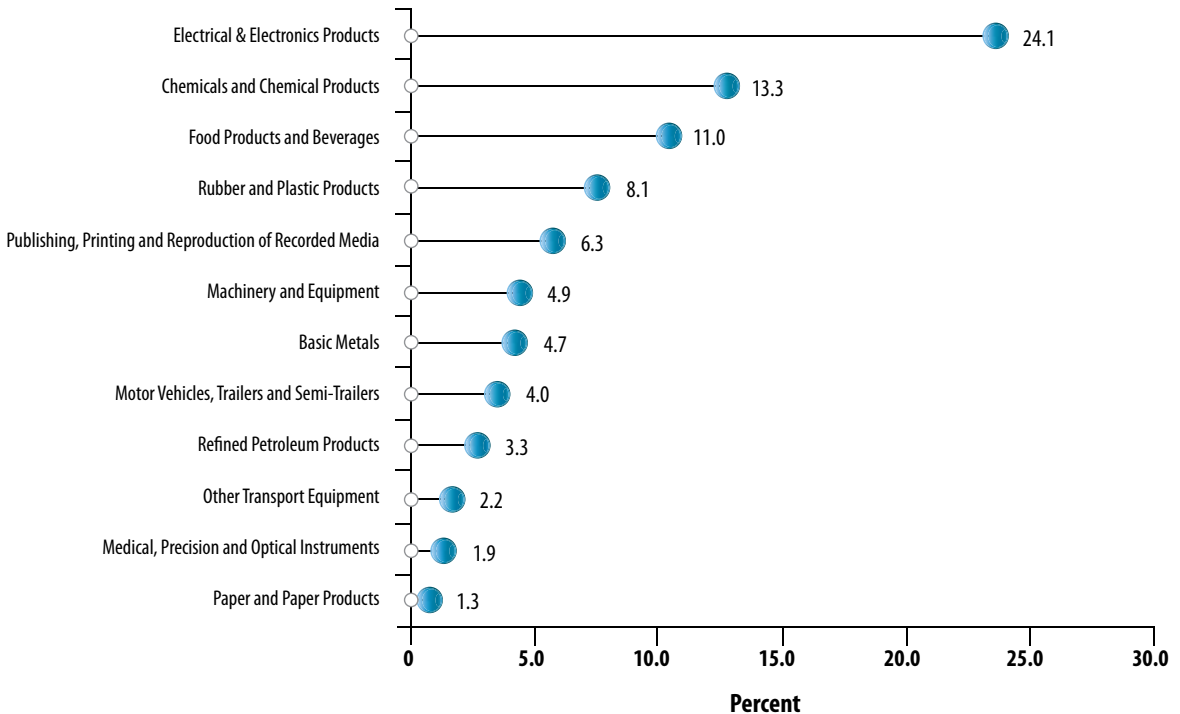
Computed from: Department of Statistics, Malaysia

Added Value Growth of the Manufacturing Sub-sectors, 2010



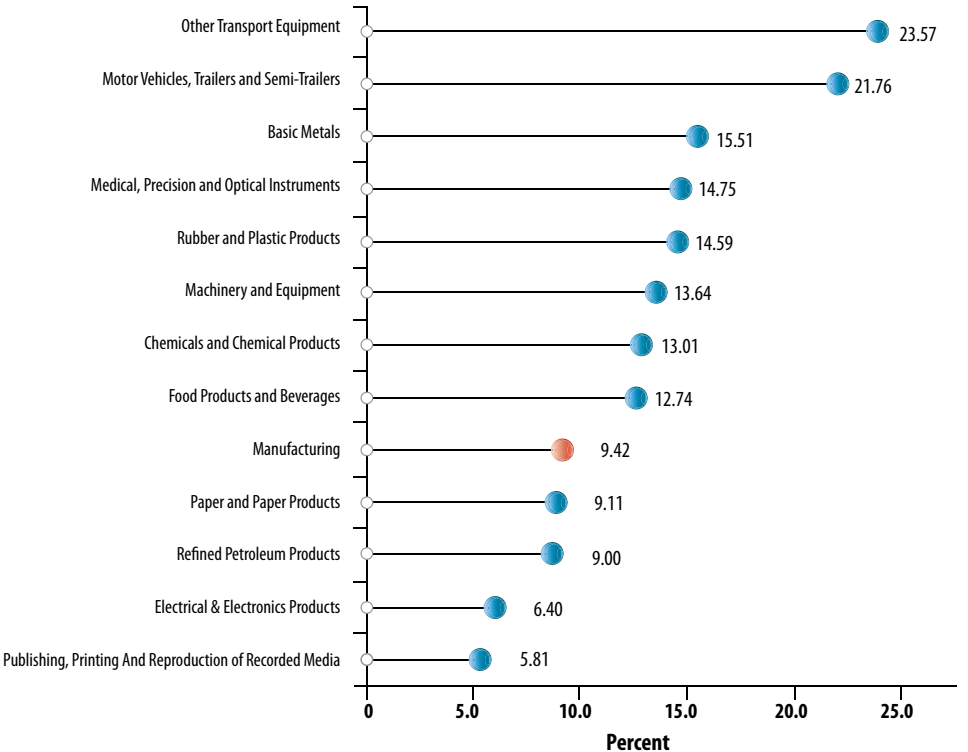
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Added Value Contributions of the Manufacturing Sub-sectors, 2010



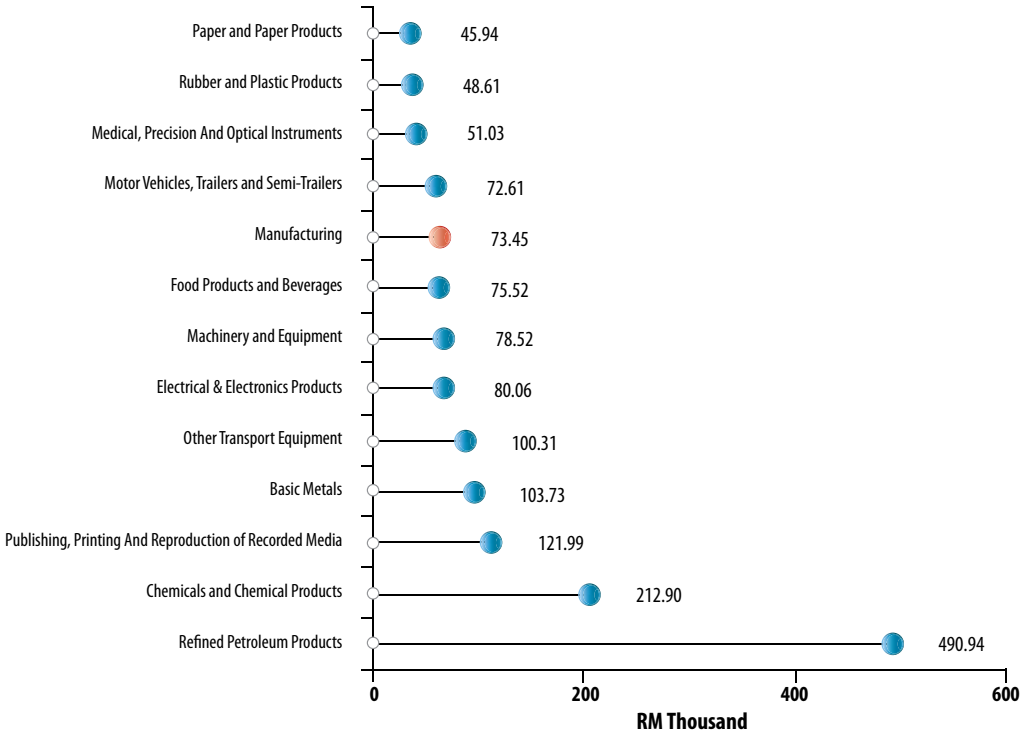
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Productivity Growth of Manufacturing Sub-sectors and Industries, 2010



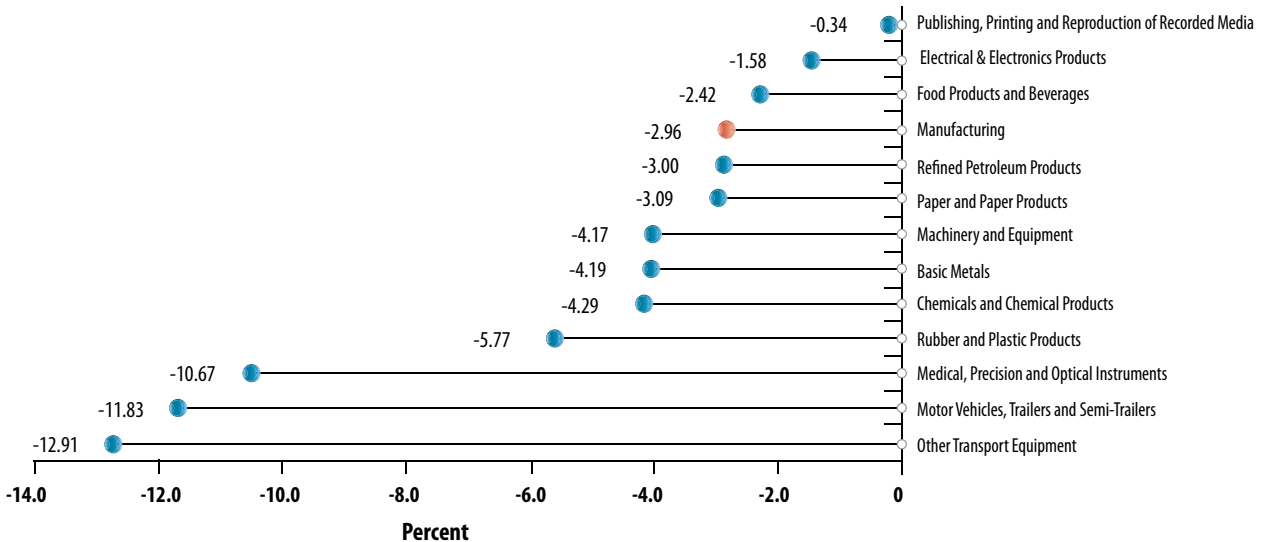
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Productivity Level of Manufacturing Sub-sectors and Industries, 2010



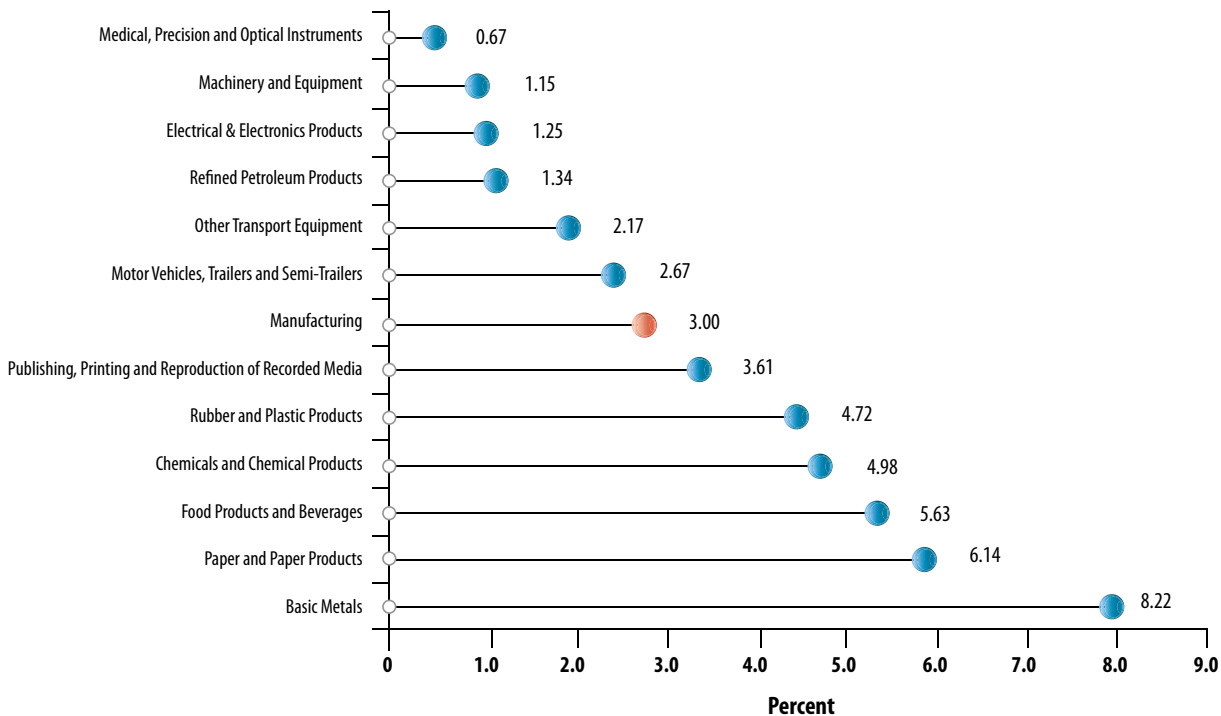
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Changes in Unit Labour Cost of the Manufacturing Sub-sectors and Industries, 2010



Computed from: Annual Survey of Manufacturing Industries,Department of Statistics, Malaysia

Growth in Labour Cost per Employee of the Manufacturing Sub-sectors and Industries, 2010



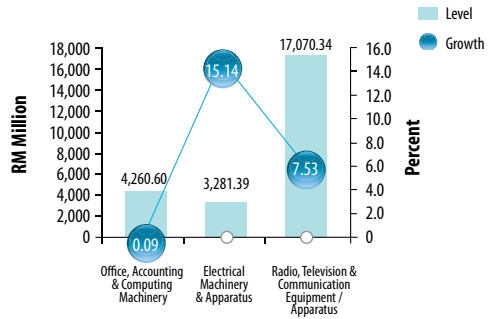
Computed from: Annual Survey of Manufacturing Industries,Department of Statistics, Malaysia

Labour Cost Competitiveness of the Manufacturing Sub-sectors and Industries, 2010

Sub-sectors	Labour Cost Per Employee	Unit Labour Cost Changes (%)	Productivity Growth (%)
	Growth Rate (%)		
Other Transport Equipment	2.17	-12.91	23.57
Motor Vehicles, Trailers and Semi- Trailers	2.67	-11.83	21.76
Medical, Precision and Optical Instruments	0.67	-10.67	14.75
Rubber and Plastic Products	4.72	-5.77	14.59
Chemicals and Chemical Products	4.98	-4.29	13.01
Basic Metals	8.22	-4.19	15.51
Machinery and Equipment	1.15	-4.17	13.64
Paper and Paper Products	6.14	-3.09	9.11
Refined Petroleum Products	1.34	-3.00	9.00
Manufacturing	**3.00**	**-2.96**	**9.42**
Food Products and Beverages	5.63	-2.42	12.74
Electrical & Electronics Products	1.25	-1.58	6.40
Publishing, Printing and Reproduction of Recorded Media	3.61	-0.34	5.81

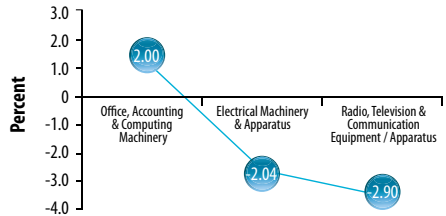
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Added Value (Level and Growth) of the E&E Industry, 2010



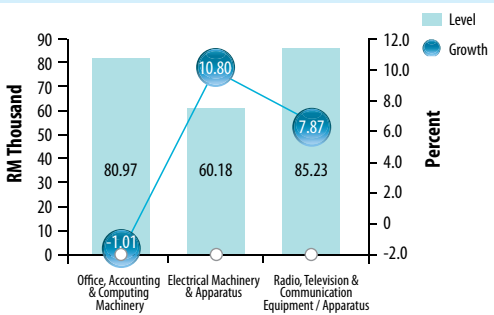
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Changes in Unit Labour Cost of the E&E Industry, 2010



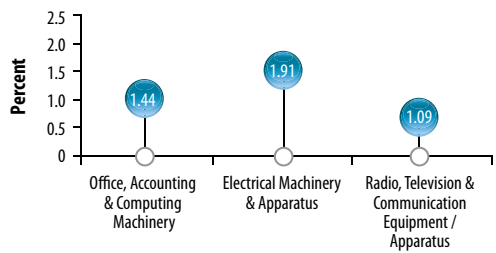
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Productivity (Level and Growth) of the E&E Industry, 2010



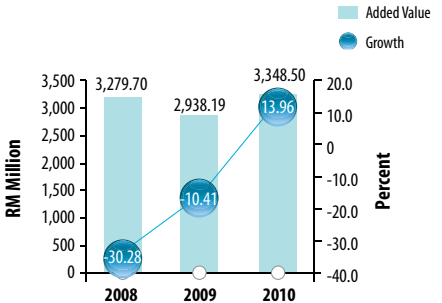
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Growth in Labour Cost per Employee of the E&E Industry, 2010



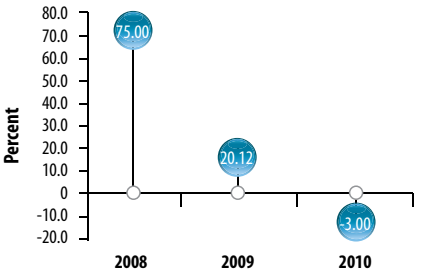
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Added Value (Level and Growth) of the Refined Petroleum Products, 2008-2010



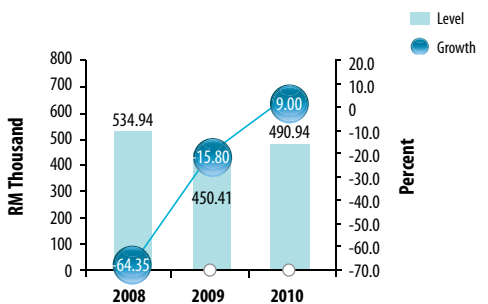
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Changes in Unit Labour Cost of the Refined Petroluem Products, 2008-2010



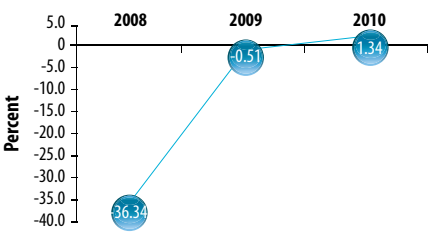
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Productivity (level and Growth) of the Refined Petroluem Products, 2008-2010



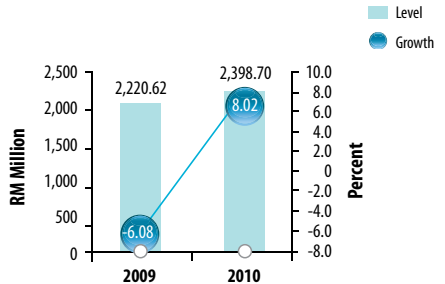
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Growth in Labour Cost per Employee of the Refined Petroleum Products, 2008-2010



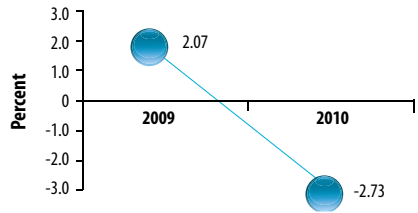
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Added Value (Level and Growth) of the Palm Oil Products, 2008-2010



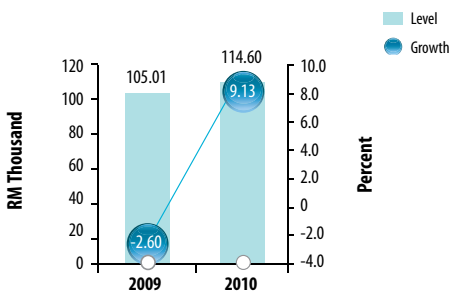
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Changes in Unit labour Cost of the Palm Oil Products, 2009-2010



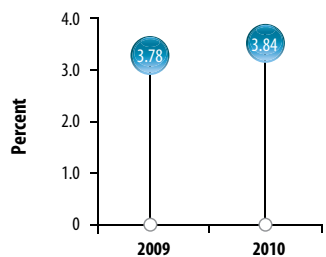
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Productivity (Level and Growth) of the Palm Oil Products, 2008-2010



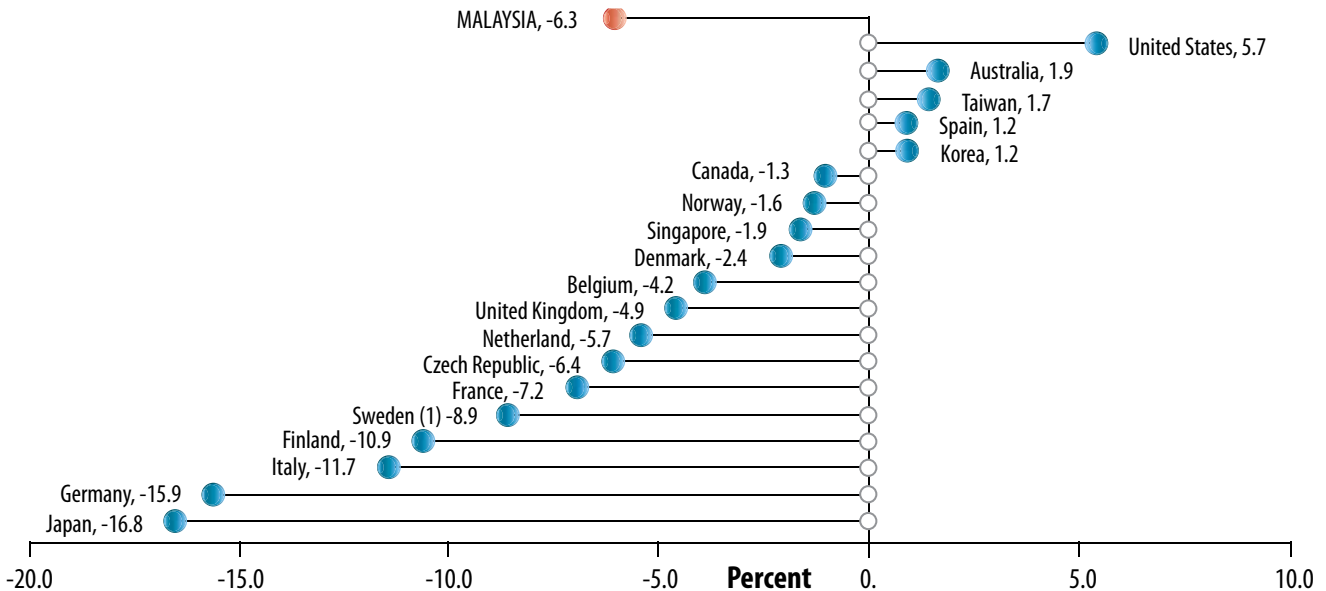
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Growth in Labour Cost per Employee of the Palm Oil Industry, 2009-2010



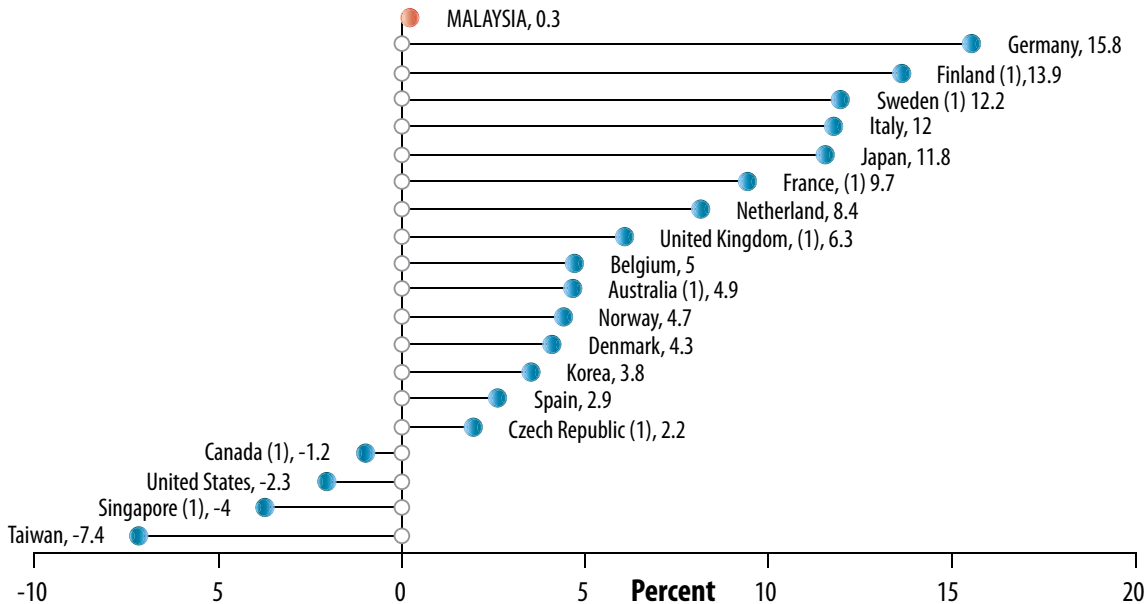
Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

International Comparison of Productivity Growth, 2009



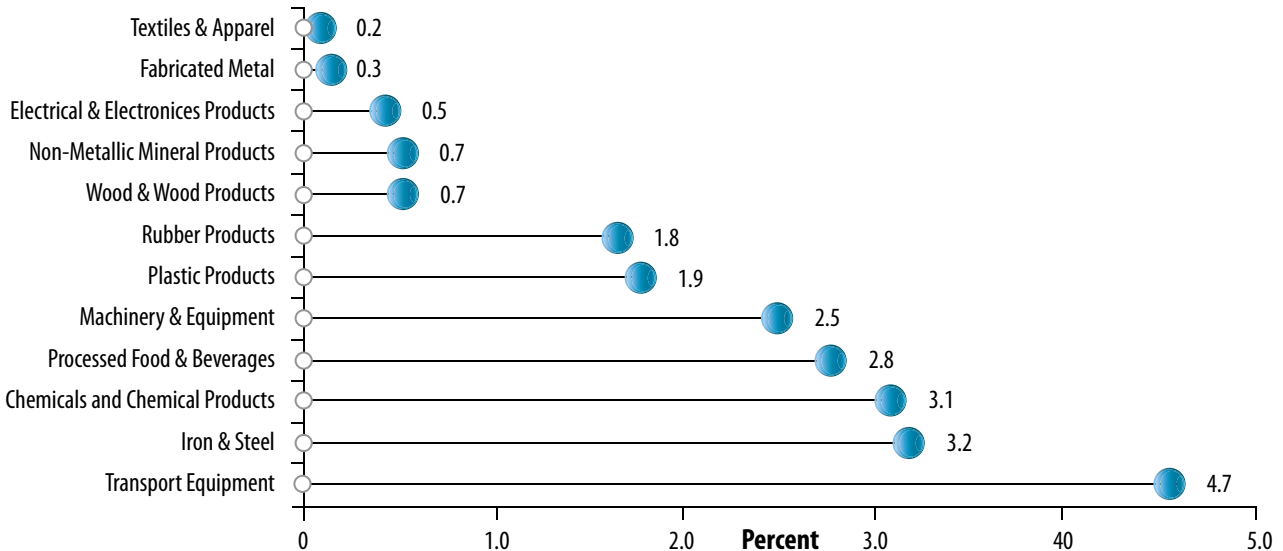
Source : *- Malaysia's productivity measures are based on national basis*
- Bereau of Labor Statistics (http://www.bls.gov/fls/#productivity)

Percentage Change in Manufacturing Unit Labour Cost, 2009



Source: *- Malaysia's productivity measures are based on national basis*
- Bereau of Labor Statistics (http://www.bls.gov/fls/#productivity)

TFP Growth of the Manufacturing Industries, 2006-2010

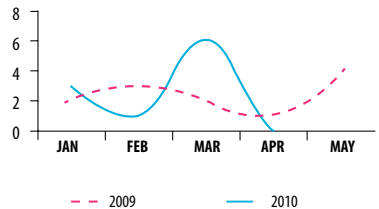


Computed from: Annual Survey of Manufacturing Industries, Department of Statistics, Malaysia

Benefits of TQM in an Automotive Parts Manufacturer

Reduction in Customer Complaint

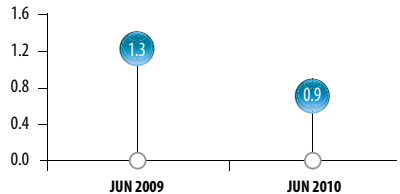
Customer Complaint (2009 and 2010)



Improvement in production scheduling the timely build up inventory has increased delivery efficiency and quality. As a result, customers has responded positively in delivery performance.

Reduction in Raw Material Inventory

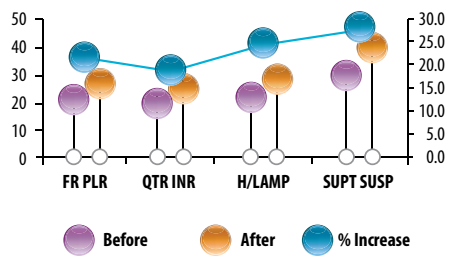
Raw Material Status (RM Million)



Reduction in inventory is due to improvement in vendor delivery scheduling and implementation of the appropriate visual control of stock.

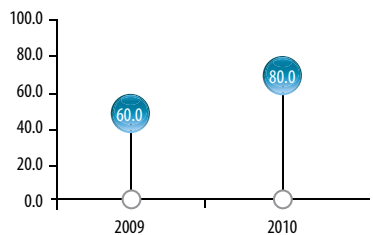
Increase in Productivity

Result of Productivity Improvement for Major Products



The improvements were achievement after considering production requirement based on Production Control activity

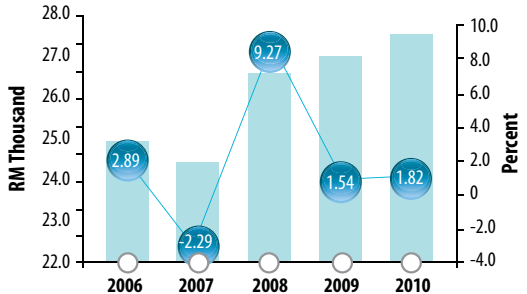
Increase in Workers Satisfaction Level



Improvement in workers satisfaction is recorded after salary benefit package improvement was approved by the management.

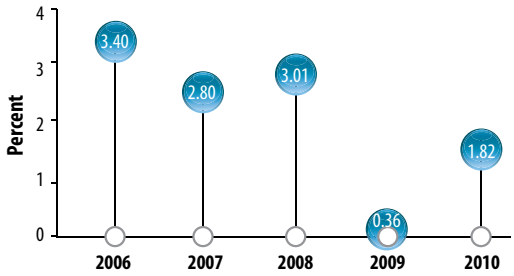
PRODUCTIVITY PERFORMANCE OF THE AGRICULTURE SECTOR

Productivity Level & Growth of the Agriculture Sector, 2006-2010



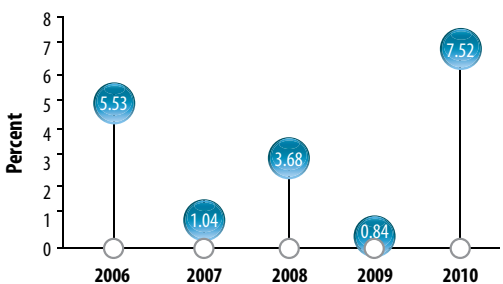
Computed from: - Department of Statistics, Malaysia
- Economic Report, Ministry of Finance, Malaysia
- Economic Planning Unit, Malaysia

Growth in Labour Productivity, 2006-2010



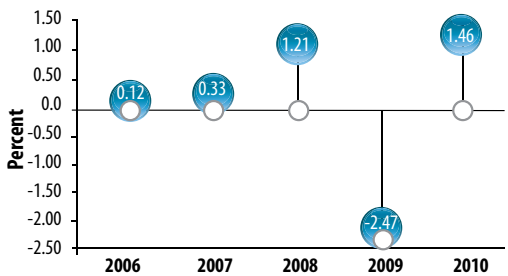
Computed from: Ministry of Agriculture and Agro-based Industry, Malaysia

Growth in Land Productivity, 2006-2010



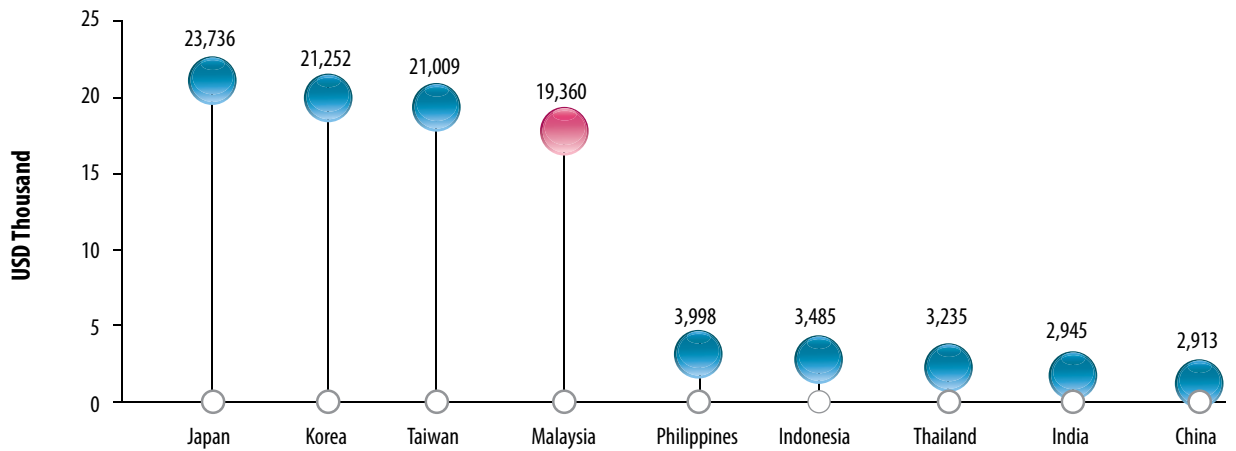
Computed from: Ministry of Agriculture and Agro-based Industry, Malaysia

Growth in Capital Productivity, 2006-2010



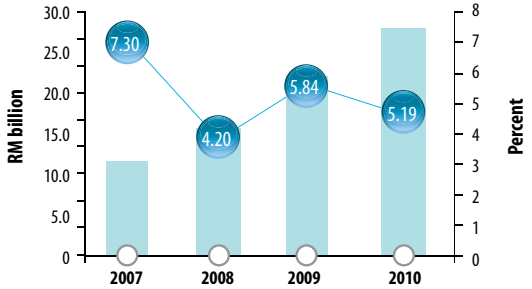
Computed from: Ministry of Agriculture and Agro-based Industry, Malaysia

International Productivity Comparison for Selected Asian Countries (2009)



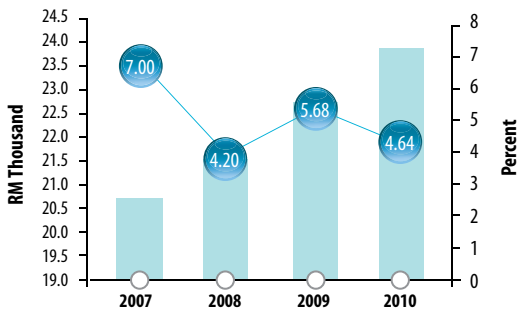
Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Construction GDP and Growth, 2007-2010



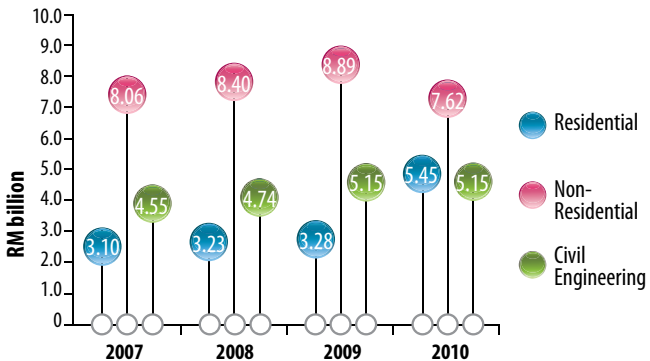
Computed from:
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*
- *Economic Planning Unit, Malaysia*

Productivity Level & Growth of the Construction Sector, 2007-2010



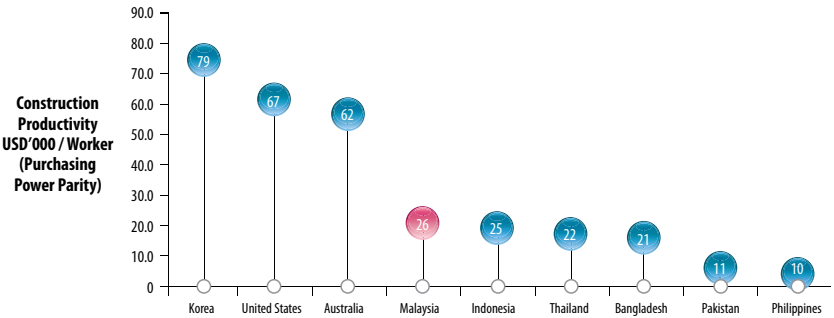
Computed from:
- *Department of Statistics, Malaysia*
- *Economic Report, Ministry of Finance, Malaysia*
- *Economic Planning Unit, Malaysia*

Output of the Construction Sub-sectors 2007-2010 at 2000 Constant Price



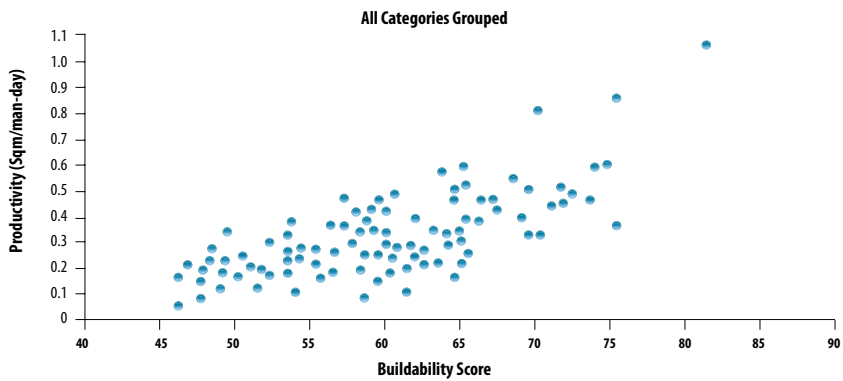
Computed from:
- *Construction Industry Development Board, Malaysia*

International Productivity Comparison for Selected Countries, 2009



Source : Chia & Others " International comparison of Malaysian construction labour productivity. CIDB 2010"

Productivity versus IBS score



Source : Patrick Lim & others.

PART 3

Strengthening Public-Private Partnership

CHAPTER 7

Productivity Performance of the Public Sector

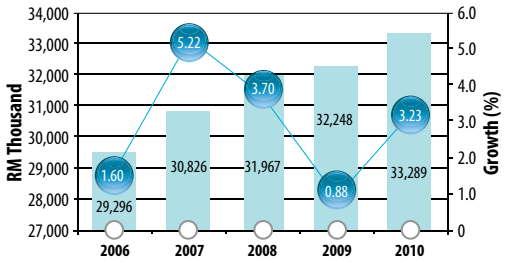
CHAPTER 8

New Sources of Growth Based on 12 National Key Economic Areas (NKEAs)

CHAPTER 9

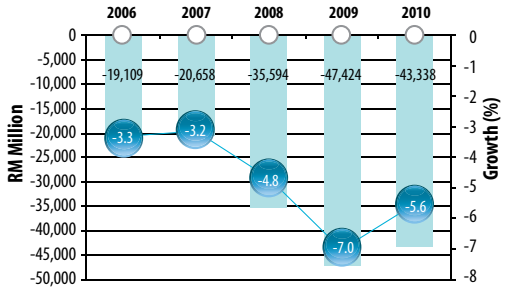
High Impact Productivity Drivers

Public Sector Productivity, 2006-2010



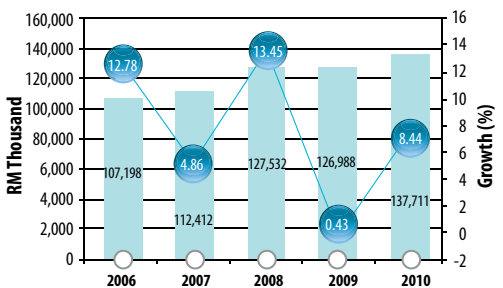
Source: Economic Report, Ministry of Finance, 2010 - 2011

Government Deficit in GDP, 2006-2010



Source: Economic Report, Ministry of Finance, 2010 - 2011

Government Revenue per Employee, 2006-2010



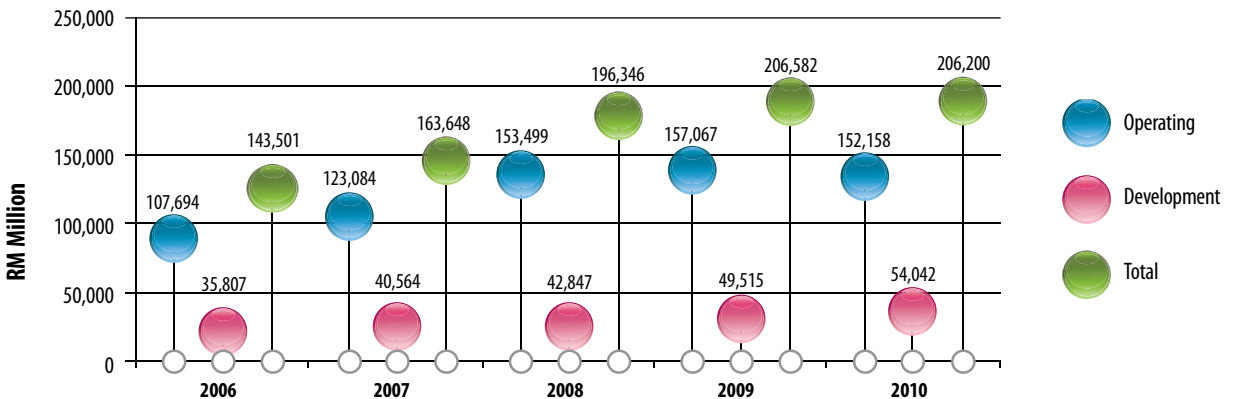
Source: Economic Report, Ministry of Finance, 2010 - 2011

Public Service Sub-sectors Productivity, 2006-2010

	2006	2007	2008	2009	2010
General public administration (RM)	60,499	61,976	64,129	64,876	67,155
Growth (%)	6.65	2.44	3.47	1.16	3.51
Security Services (RM)	22,872	24,616	26,924	27,292	28,355
Growth (%)	1.86	7.63	9.38	1.37	3.89
Economic Services (RM)	28,798	28,200	30,249	30,266	31,908
Growth (%)	0.43	-2.08	7.27	0.06	5.43
Social Services (RM)	29,006	30,842	31,181	31,376	32,223
Growth (%)	1.52	6.33	1.10	0.63	2.70

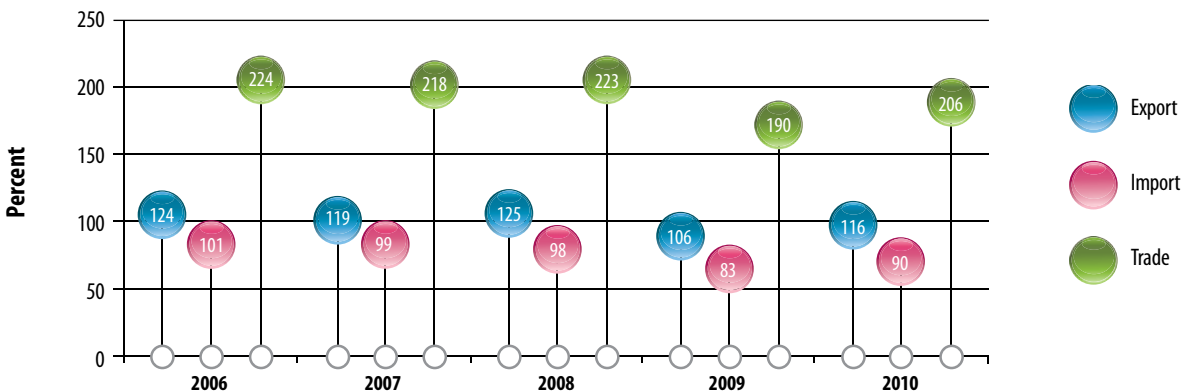
Source: Economic Report, Ministry of Finance, 2010 - 2011

Government Expenditure (RM Million), 2006-2010



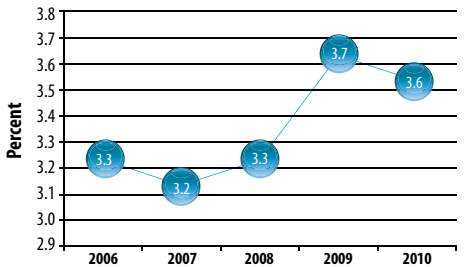
Source: Economic Report, Ministry of Finance, 2010 - 2011

Trade in GDP, 2006-2010



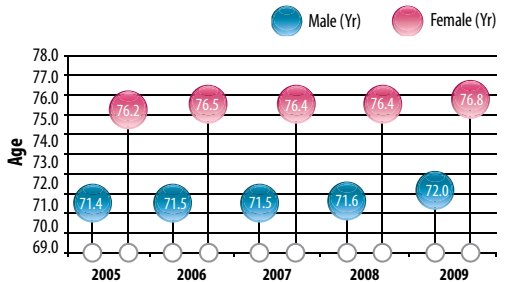
Source: Economic Report, Ministry of Finance, 2010 - 2011

Unemployment Rate, 2005-2009



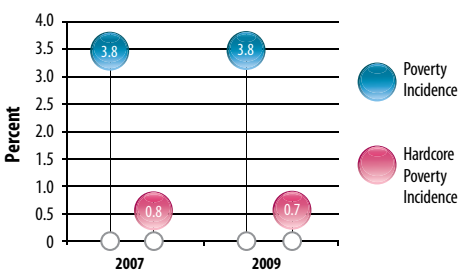
Source: Economic Report, Ministry of Finance, 2010 - 2011

Life Expectancy at Birth, 2005-2009



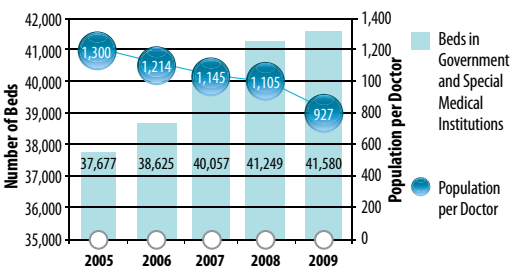
Source: Economic Report, Ministry of Finance, 2010 - 2011

Poverty Incidence, 2007-2009



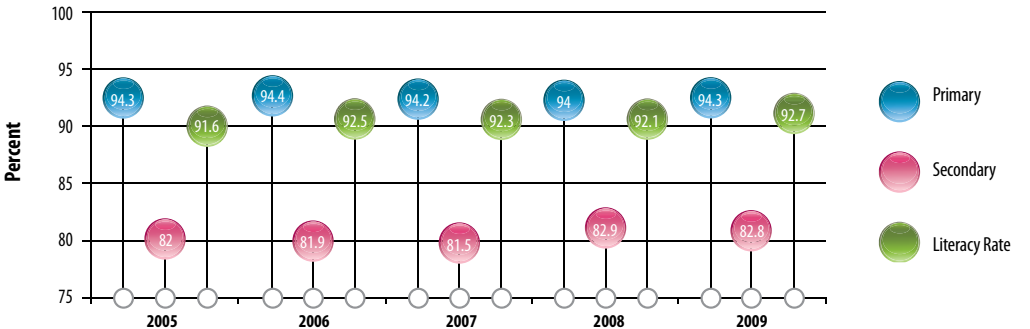
Source: Economic Report, Ministry of Finance, 2010 - 2011

Doctors and Beds, 2005-2009



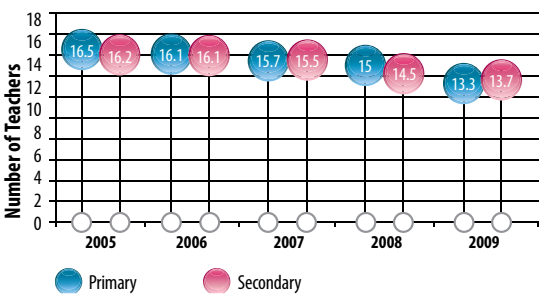
Source: Economic Report, Ministry of Finance, 2010 - 2011

Educational Enrolment and Literacy, 2005-2009



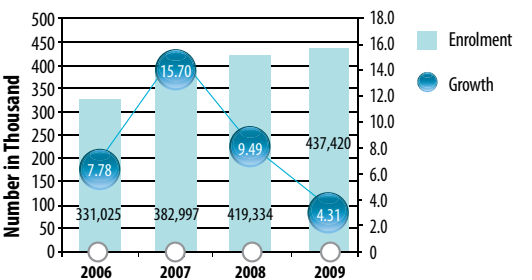
Source: Economic Report, Ministry of Finance, 2010 - 2011

Enrolment per Teacher, 2005-2009



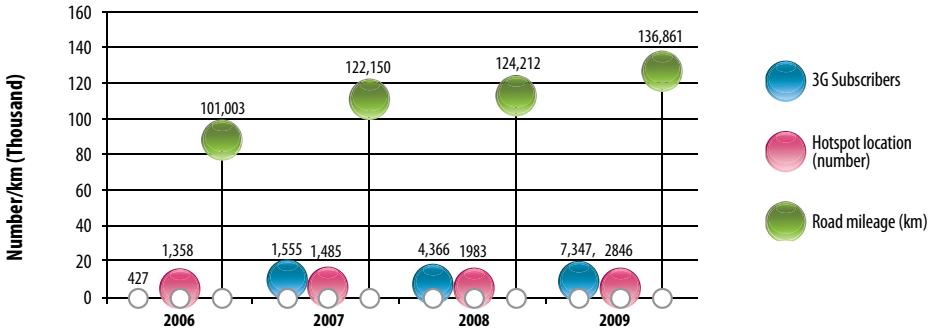
Source: Economic Report, Ministry of Finance, 2010 - 2011

Public University Enrolment, 2006-2009



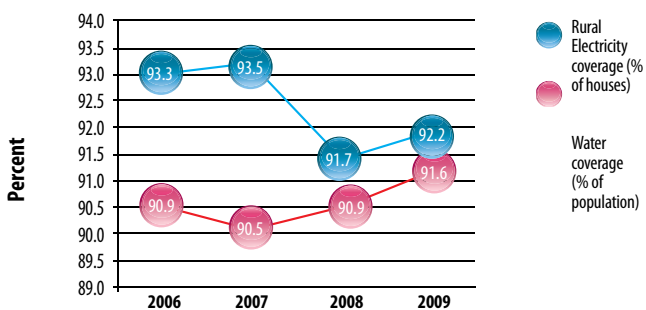
Source: Economic Report, Ministry of Finance, 2010 - 2011

Infrastructure, Malaysia, 2006-2009



Source: Economic Report, Ministry of Finance, 2010 - 2011

Coverage of Utilities, Malaysia, 2006-2009



Source: Economic Report, Ministry of Finance, 2010 - 2011

Public Finance, Malaysia, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
	PUBLIC FINANCE	9		15		24
1	Government Budget Surplus/Deficit (US$ billions)*	7	-13.47	36	-10.67	43
2	Government Budget Surplus/Deficit (% of GDP)	5	-7.03	45	-4.81	50
3	Total General Government Debt (US$ billions)*	-4	102.95	27	91.86	23
4	Total General Government Debt (% of GDP)	-1	53.73	35	41.37	34
5	Total General Government Debt - Real Growth (% change, based on national currency in constant price)	-1	17.52	43	8.96	42
6	Central Government Domestic Debt (% of GDP)*	-4	51.69	45	38.63	41
7	Central Government Foreign Debt (% of GDP)*	3	2.04	17	2.74	20
8	Interest Payment (% of current revenue)	-1	8.97	42	8.01	41
9	Management of Public Finances over the next two years is likely to improve	3	7.15	4	5.76	7
10	Tax evasion does not damage public finances	16	5.80	2	5.03	18
11	Pension funding is adequately addressed for the future	3	6.61	3	5.1	6
12	General Government Expenditure (% of GDP)	-1	30.63	18	26.51	17

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Fiscal Policy, Malaysia, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
	FISCAL POLICY	2		8		10
1	Collected Total Tax Revenues (% of GDP)	-2	15.28	9	14.83	7
2	Collected Personal Income Tax (On profits, income and capital gains, as a % of GDP)*	-1	2.03	9	1.82	8
3	Collected Corporate Taxes (On profits, income and capital gains, as a % of GDP)*	-7	5.11	49	5.01	42
4	Collected Indirect Tax Revenues (Taxes on goods and services as at % of GDP)	-1	4.16	5	4.02	4
5	Collected Capital and Property taxes (% of GDP)	2	0.01	1	0.04	3
6	Collected Social Security Contribution (Compulsory contribution of employees and employers as a % of GDP)	1	4.82	20	4.51	21
7	Effective Personal Income Tax Rate (% of an income equal to GDP per capita)	4	10.91	14	11.5	18
8	Corporate Tax Rate on Profit (Maximum tax rate, calculated on profit before tax)	-4	25	23	25	19
9	Consumption tax rate (Standard rate of VAT/GST)	-	-	-	-	-
10	Employee's Social Security Contribution Rate (Compulsory contribution as a % of an income equal to GDP per capita)	6	8	28	11	34
11	Employer's Social Security Contribution Rate (Compulsory contribution as a % of an income equal to GDP per capita)	-3	12	24	12.01	21
12	Real Personal Taxes do not discourage people from working or seeking advancement	4	6.67	6	5.85	10
13	Real Corporate Taxes do not discourage entrepreneurial activity	6	6.44	8	5.73	14

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Central Bank, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
1	Real Short- Term Interest Rate (real discount/ bank rate)	-21	1.40	36	-1.88	15
2	Cost of Capital encourages business development	2	7.05	2	5.88	4
3	Interest Rate Spread (lending rate minus deposit rate)	1	3	24	2.95	25
4	Country Credit Rating (rating on a scale of 0-100 assessed by the institutional investor magazine ranking)	0	70.1	34	72.5	34
5	Central Bank Policy has a positive impact on economic development	9	7.88	3	7.04	12
6	Foreign Currency Reserves (US$ billions)	-2	96.68	17	91.54	15
7	Exchange Rate Stability (parity change from national currency to SDR, 2009/2007)	-30	0.027	32	0	2

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

State Efficiency, Malaysia, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
	STATE EFFICIENCY					
1	Legal and Regulatory Framework encourages the competitiveness of enterprises	7	6.93	3	5.82	10
2	Adaptability of Government Policy to changes in the economy is high	8	7.22	2	5.34	10
3	Government Decisions are effectively implemented	14	6.20	4	4.48	18
4	Tranparency of government policy is satisfactory	21	5.98	10	3.94	31
5	Bureaucracy does not hinder business activity	12	5.22	4	3.37	16
6	Bribing and Corruption do not exist	5	4.73	26	3	31

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Openness, Malaysia, 2009-2010

Indicators		Change	2010		2009	
			Value	Rank	Value	Rank
1	Tariff barriers (tariffs on imports: Most favored nation simple average rate)	-4	8.8	46	8.4	42
2	Customs' Authorities do facilitate the efficient transit of goods	11	6.32	22	5.43	33
3	Protectionism does not impair the conduct of your business	24	6.02	20	4.6	44
4	Public Sector Contracts are sufficiently open to foreign bidders	21	6.05	28	4.48	49
5	Foreign Investors are free to acquire control in domestic companies	18	6.54	35	4.6	53
6	Capital Markets (foreign and domestic) are easily accessible	16	7.01	25	5.37	41
7	Investment Incentives are attractive to foreign investors	24	7.46	3	5.91	27

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Competition and Regulation, Malaysia, 2009-2010

Indicators		Charge	2010		2009	
			Value	Rank	Value	Rank
1	Government Subsidies (to private and public companies as a % of GDP)	-12	4.76	53	1.63	41
2	Subsidies do not distort fair competition and economic development	15	5.76	17	4.88	32
3	State Ownership of Enterprises is not a threat to business activities	31	7.01	4	5.07	35
4	Competition Legislation is efficient in preventing unfair competition	15	6.46	13	5.34	28
5	Parallel Economy (black-market,unrecorded) does not impair economic development	7	5.44	20	4.57	27
6	Ease of Doing Business is supported by regulations	8	7.17	2	5.88	10
7	Creation of Firms is supported by legislation	16	7.63	4	6.61	20
8	Start - Up Days (number of days to start a business)	-2	11	21	13	19
9	Start-Up Procedures (number of procedures to start a business)	-4	9	43	9	39

Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Labour Regulation, Malaysia, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
1	Labour Regulations (hiring/firing practices, minimum wages, etc) do not hinder business activities	1	7.10	5	6.18	6
2	Unemployment Legislation provides an incentives to look for work	2	7.02	2	6.39	4
3	Immigration Laws do not prevent your company from employing foreign labor	29	7.15	7	5.58	36
4	Redundancy Costs (Number of week s of salary)	New	75	48		
5	Labour Market Flexibility (index on rigidity of employment) (index 0-100)	-2	10	9	10	7

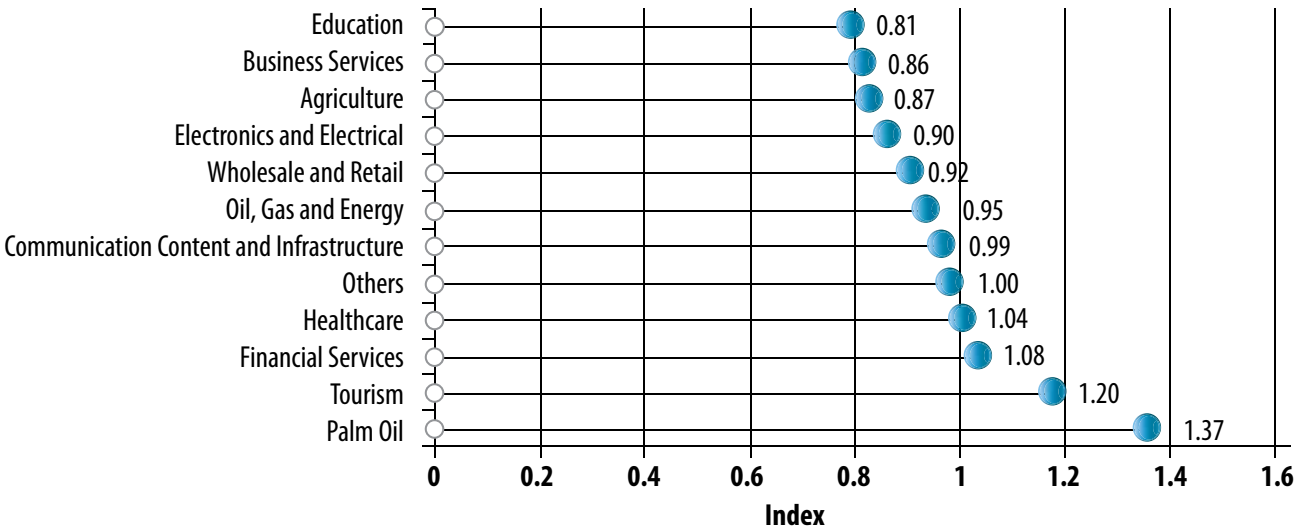
Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Societal Framework, Malaysia, 2009-2010

	Indicators	Change	2010		2009	
			Value	Rank	Value	Rank
	SOCIETAL FRAMEWORK	13		27		40
1	Justice is fairly administered	5	6.56	23	5.37	28
2	Personal Security and Private Property are adequately protected	5	6.80	28	6.06	33
3	Ageing of Society is not a burden for economic development	5	7.43	2	6.54	7
4	Risk of Political Instability is very low	18	6.90	26	4.78	44
5	Social Cohesion is a priority for the government	16	7.76	6	6.39	22
6	Gini Index (Equal distribution of income scale : 0 (absolute equality) 100 (absolute inequality)*	New	38	37	-	-
7	Income Distribution - Lowest 10% (% of household incomes going to lowest 10% households)*	New	2.60	-	-	-
8	Equal Opportunity Legislation in your country encourages economic development	New	6.90	12	-	-
9	Females in Parliament (% of total seats in Parliament)	0	15	39	14.6	39
10	Female Positions (% of total legislators, senior officials and managers)	0	23	45	23	45
11	Gender Income Ratio (ratio of estimated female to male earned income globally)	-1	0.42	51	0.44	50
12	Justice is fairly administered	5	6.56	23	5.37	28

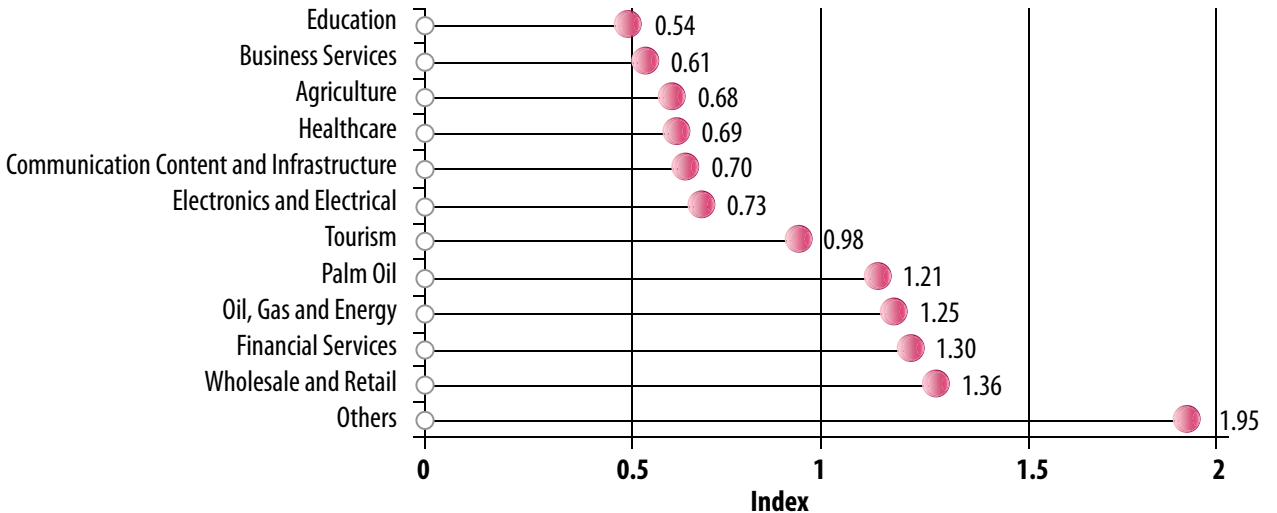
Source : World Competitiveness Yearbook, 2010, Institute Management Development, Switzerland

Backward linkages of the 12 NKEAs



Source: Calculated from Malaysia Input-Output Table 2005, Department of Statistics, Malaysia

Forward linkages of the 12 NKEAs



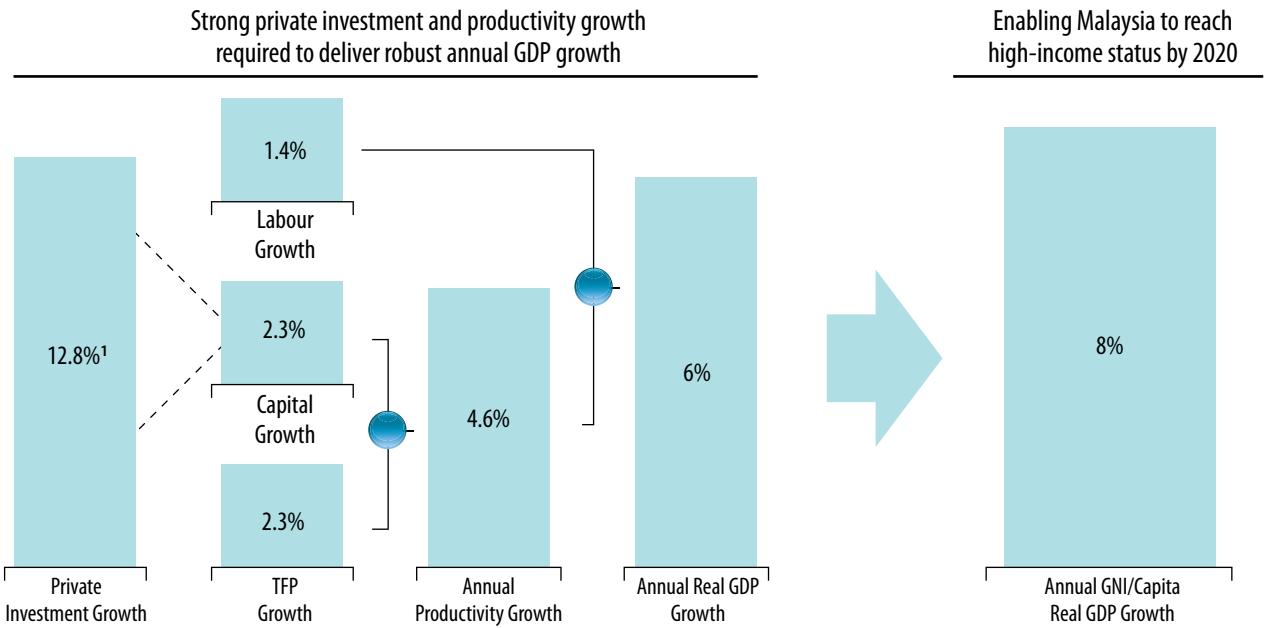
Source: Calculated from Malaysia Input-Output Table 2005, Department of Statistics, Malaysia

Overall Weighted Average of Scores from Inter-industry Indices

Sectors	IO Code	Output		Income		Employment		Value Added		Operating Surplus		Average of Rank
		Multiplier	Rank	Multiplier	Rank	Multiplier	Rank	Multiplier	Rank	Multiplier	Rank	
Education	2	2.39	5	0.58	1	0.038	2	1.14	1	0.53	7	3.2
Tourism	3	2.93	2	0.45	2	0.026	4	0.98	3	0.66	5	3.2
Financial Services	11	2.69	3	0.44	3	0.013	9	1.11	2	0.81	1	3.6
Palm Oil	7	3.11	1	0.35	4	0.025	5	0.95	6	0.63	6	4.4
Agriculture	9	2.06	8	0.29	6	0.048	1	0.97	4	0.69	4	4.6
Healthcare	6	2.41	4	0.30	5	0.027	3	0.84	8	0.50	9	5.8
Communication Content & Infrastructure	8	2.19	6	0.22	7	0.009	10	0.97	5	0.75	2	6
Others	12	2.19	7	0.21	8	0.014	7	0.73	10	0.51	8	8
Oil, Gas and Energy	1	1.91	9	0.09	12	0.004	12	0.77	9	0.70	3	9
Business Services	10	1.91	10	0.20	9	0.014	8	0.91	7	0.48	11	9
Wholesale and Retail	4	1.89	11	0.10	11	0.015	6	0.70	11	0.49	10	9.8
Electronics and Electrical	5	1.87	12	0.11	10	0.007	11	0.41	12	0.30	12	11.4

Source: Calculated from Malaysia Input-Output Table 2005, Department of Statistics, Malaysia

National Agenda for Productivity Growth



Malaysia needs strong growth in productivity to realise vision of a high-income economy by 2020

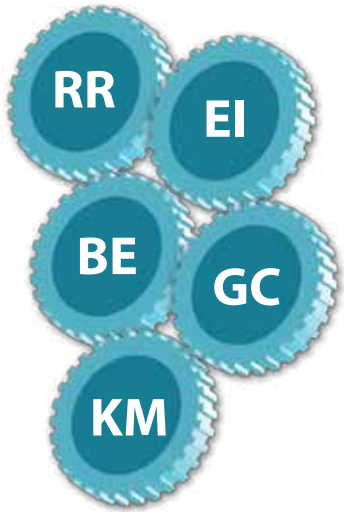
Five Key Departments of MPC

1. Regulatory Review (RR)

- Monitor, review, assess and provide recommendations for policy/regulatory changes, and on new regulations, to enhance national productivity and innovation
- Provide support for existing committees on facilitating businesses

3. Business Excellence (BE)

- Measure and certify companies, and showcase role models to spur competition and set best practices for others to emulate
- Set and enhance innovation standards with the "Health" check framework



HIGH IMPACT PRODUCTIVITY & INNOVATION DRIVERS

2. ENTERPRISE INNOVATION (EI)

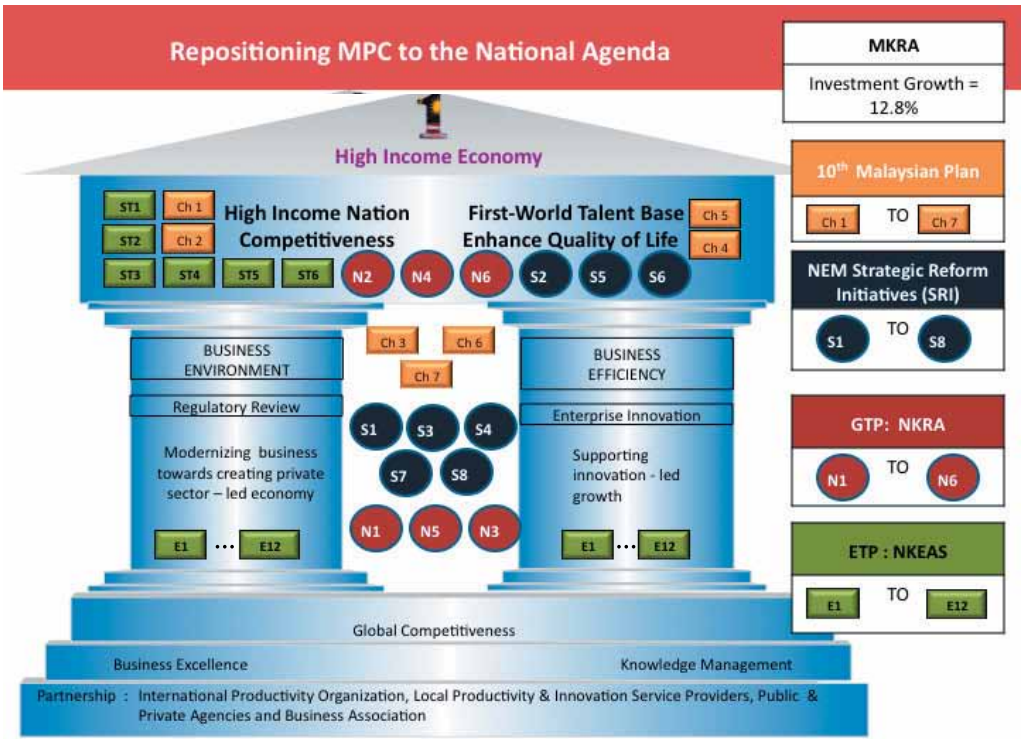
Improve innovation at companies by creating and implementing eco systems to address the entire innovation value chain

4. Global Competitiveness (GC)

- Develop global and national macroeconomic knowledge base on Malaysia's competitiveness
- Expand focus to state level benchmarking and support international benchmarking for regulatory review

5. Knowledge Management (KM)

- Create knowledge base with productivity and industry reports, and provide fact base on productivity and innovation
- Support Regulatory Review, and Enterprise Innovation with research output


Repositioning MPC to the National Agenda
MKRA
Investment Growth = 12.8%
1
High Income Economy
10th Malaysian Plan
Ch 1 TO Ch 7
ST1 Ch 1
ST2 Ch 2
ST3 ST4 ST5 ST6
High Income Nation Competitiveness
First-World Talent Base Enhance Quality of Life
Ch 5
Ch 4
N2 N4 N6 S2 S5 S6
NEM Strategic Reform Initiatives (SRI)
S1 TO S8
BUSINESS ENVIRONMENT
Regulatory Review
Modernizing business towards creating private sector – led economy
E1 ... E12
Ch 3 Ch 6 Ch 7
S1 S3 S4 S7 S8
N1 N5 N3
BUSINESS EFFICIENCY
Enterprise Innovation
Supporting innovation - led growth
E1 ... E12
GTP: NKRA
N1 TO N6
ETP : NKEAS
E1 TO E12
Global Competitiveness
Business Excellence
Knowledge Management
Partnership : International Productivity Organization, Local Productivity & Innovation Service Providers, Public & Private Agencies and Business Association

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APPENDICES

TERMINOLOGY AND DEFINITION

1. **PRODUCTIVITY** is the relationship between the amount of output produced and the amount of input used to produce the output. Higher productivity means achieving more with the same or lesser amount of input resources. Increase in productivity will lead to benefits such as higher standard of living, enhanced competitiveness and better quality of life.

2. **Total Factor Productivity (TFP)**
   TFP measures the efficiency of the utilisation of both capital and human resources. It is also regarded as a measure of the degree of technological advancement associated with economic growth. Higher TFP growth indicates efficient utilisation and management of resources, materials and inputs necessary for the production of goods and services.

   At the national level, Total Factor Productivity (TFP) growth reflects the portion of the growth in the Gross Domestic Product (GDP) other than growth in inputs such as employment, capital investment and natural resources.

   At the firm level, TFP growth implies the upgrading of skills and technical manpower, application of technology and creation of new technologies, adoption of best management practices and institutionalised corporate culture and work ethics.

3. **Added Value**
   Added value measures the wealth generated by collective efforts of those who work in an enterprise (the employees) and the capital providers (e.g. investors and shareholders). Added value is different from sales revenue or value of production because it does not include the wealth created by the suppliers to the enterprise.

Methods of Added Value Calculation
There are two ways added value can be calculated:

(i) Addition Method
This is called the wealth distribution method.

Added Value = Labour Cost + Interest + Tax + Depreciation + Profit

It is called wealth distribution because the added value created is used to pay those who have contributed to its creation in terms of wages & salaries (labour cost) for the employees, interest and loan for capital providers, taxes to the Government, depreciation for capital equipment usage and profits to the owners.

(ii) Subtraction Method
This is called the wealth creation method.

Added Value = Total Output less Bought-In Materials and Services (BIMS)

In order to produce goods or services, a company has to purchase the necessary raw materials and other inputs. The difference between the total value of output and total cost of inputs i.e. all inputs and services bought from another company is called added value.

4. **Total Output (TO)**
It is defined as value of products manufactured (ex-factory value) + value of construction work done + change in Work-In-Progress (WIP) + capital expenditure on own construction + income from services rendered + income from sales of goods purchased in same condition.

5. **Total Input (TI)**
It is defined as value of materials consumed + value of supplies consumed + cost of printing + cost of goods sold in same condition + water + electricity + fuels + lubricants + supplies + salaries and wages + fees paid to non-working directors + payments to contractors + payment in kind to paid employees + value of free wearing apparel + employer's contribution to Government funds + payments for industrial work done by others + payments for non-industrial services + interest charges + depreciation + indirect taxes.

6. **Labour Cost (LC)**
It is defined as payments in the form of gross salaries and wages, bonuses, and other cash allowances paid to employees + allowances, fees, bonuses and commissions paid to working directors + fees paid to non-working directors for their attendance at the Board of Directors'meetings + payments in kind to paid employees + value of free wearing apparel provided + employer's contribution to Government funds.

7. **Bought-In Materials And Services (BIMS)**
It is defined as Bought-In Materials plus Bought-In Services where Bought-In Materials is the value of materials consumed in production (including transport charges incurred and taxes and duties paid on the materials); while Bought-In Services is the value of supplies consumed such as packaging materials, consumable stores (including stationery and office supplies, materials for repairs and maintenance) + cost of printing + lubricants + cost of goods sold in same condition as purchases + water + electricity + fuels + payments to contractors + payments for industrial work done by others + supplies + payments for non-industrial services.

8. **Productivity Indicators**
The following are the productivity indicators presented in this Report.

8.1 Labour Competitiveness
8.2 Labour Productivity
8.3 Capital Productivity
8.4 Capital Intensity
8.5 Process Efficiency
8.6 Added Value Content

8.1 **Labour Competitiveness**

Competitiveness in terms of labour cost indicates the comparability of the industry in producing products or services at the lowest possible labour cost. Three competitiveness ratios which include Added Value per Labour Cost, Labour Cost per Employee and Unit Labour Cost are explained below.

RATIO	UNIT	WHAT IT TELLS
1. Added Value per Labour Cost = Added Value / Labour Cost	Pure Number	This ratio indicates how competitive the enterprise is in terms of labour cost. A low ratio indicates high labour cost which does not commensurate with added value creation.
2. Labour Cost per Employee = Labour Cost / Number of Employees	RM	This ratio measures the average remuneration per employee. A high ratio means high returns to individual worker and vice-versa.
3. Unit Labour Cost = Labour Cost / Total Output	Pure Number	This ratio indicates the proportion of labour cost to total output. A high ratio indicates high labour cost. This could be due to labour shortage and lack of skilled labour, or poor labour mix. It could also be due to high labour turnover.

8.2 **Labour Productivity**

It can be used as one of the ways of gauging the productivity performance of the industry. The commonly used indicator is Added Value per Employee.

RATIO	UNIT	WHAT IT TELLS
1. Added Value per Employee = Added Value / Number of Employees	RM	Reflects the amount of wealth created by the company, relative to the number of employees it has. It is influenced by: - Management efficiency - Work attitudes - Price effects - Demand for the products A high ratio indicates the favourable effects of labour factor in the wealth creation process. A low ratio means unfavourable working procedures such as: - High bought-in materials and services - Wastages of time and materials - Inadequate salary/wages rates
2. Total Output per Employee = Total Output / Number of Employees	RM	The size of output generated by each employee of the enterprise.

8.3 Capital Productivity

Capital productivity indicates the degree of utilisation of fixed assets and how efficient these assets are being utilised. It is defined as Added Value generated per Ringgit of Fixed Assets. High ratio indicates better performance of the assets.

RATIO	UNIT	WHAT IT TELLS
Added Value per Fixed Assets = Added Value / Fixed Assets	Pure Number	Indicates the degree of utilisation of tangible fixed assets. A high ratio indicates the efficiency of assets utilisation. A low ratio reflects poor assets utilisation.

8.4 Capital Intensity

Capital intensity measures the amount of fixed assets allocated to each employee. It is also known as Fixed Assets per Employee or simply capital-to-labour ratio. This ratio measures whether an industry is relatively capital-intensive or labour-intensive.

RATIO	UNIT	WHAT IT TELLS
Fixed Assets per Employee = Fixed Assets / Number of Employees	RM	This ratio indicates whether an enterprise adopts a capital-intensive or labour-intensive policy. A high ratio indicates the high capital intensity. A low ratio means: - Dependence on labour-intensive methods - Low technological inputs

8.5 **Process Efficiency**

Process Efficiency measures how efficient the business utilises its own resources namely, labour, plant and machinery and capital to generate Added Value while minimising the bought-in materials and services.

RATIO	UNIT	WHAT IT TELLS
Process Efficiency = Added Value / [(Total Input) - (Bought-in Materials and Services)]	Pure Number	This ratio indicates the efficiency and effiectiveness of the process, which is normally affected by production techniques used, technological innovation, managerial and labour skills. A high ratio indicates an efficient and effective process system and vice-versa.

8.6 **Added Value Content**

Added value content measures the proportion of the Added Value to Total Output. A high Value Content indicates efficient utilisation of resources resulting in more added value being generated.

RATIO	UNIT	WHAT IT TELLS
Added Value Content = Added Value / Total Output x 100	RM	It is used to gauge the degree of utilisation of bought-in materials and services and changes in the price differentials between products and purchases. A high ratio indicates efficient usage of purchase or favourable price differentials. A low ratio means: - High costs of bought-in materials and services - Poor product quality - Low price competition

APPENDIX B - INNOVATION

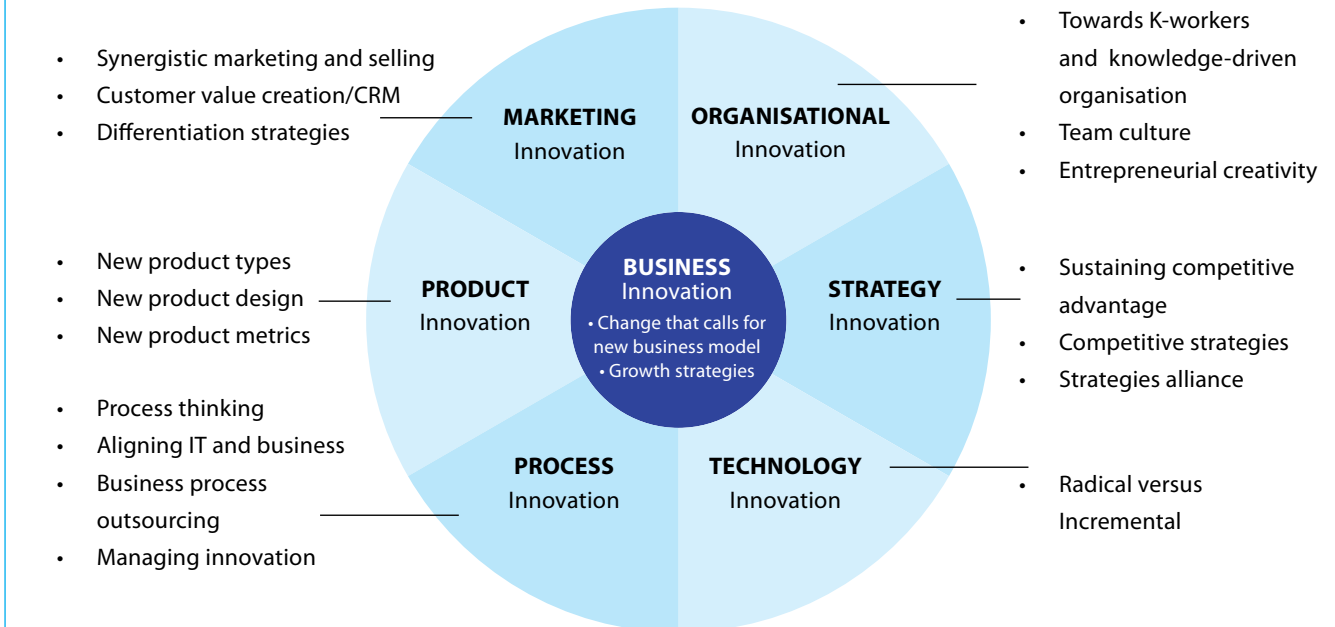
TERMINOLOGY AND DEFINITION

INNOVATION is a wide concept and can be interpreted in many ways. Innovation adds values to products and services, stimulating sales growth, exploiting new markets and formulating new organisational methods. Hence there are different perspectives of innovation namely,

- Product Innovation involves new products and new characteristics of old product; process may be the same but the product has completely changed;
- Process Innovation entails a new or significantly improved production or delivery method;
- Marketing Innovation is concern with creating a new marketing method incorporating significant changes in product design or packaging product placement, product promotion or pricing; and
- Organisational Innovation involves introducing new organisational methods in the firm's business practices, workplace or external relations.

The input to any innovation begins with ideas depending upon the pool of ideas available and the ability to generate new ideas and the ability to reintroduce new products, services and processes. Ideas and innovations within the organisational context are contributions made with the objective of improving the operations of the organisation.

Creativity is the process of developing new or interesting ideas, while innovation is the implementation and transformation of those ideas into valuable or profitable solutions. Innovation finds the value in creativity, so innovation is really about how organisations can profit from their ideas.



Source: SMART Innovation by Vadim Kotelnikov, Inventor & Founder, Ten 3 Business e-Coach.www.1000ventures.com, (2001)

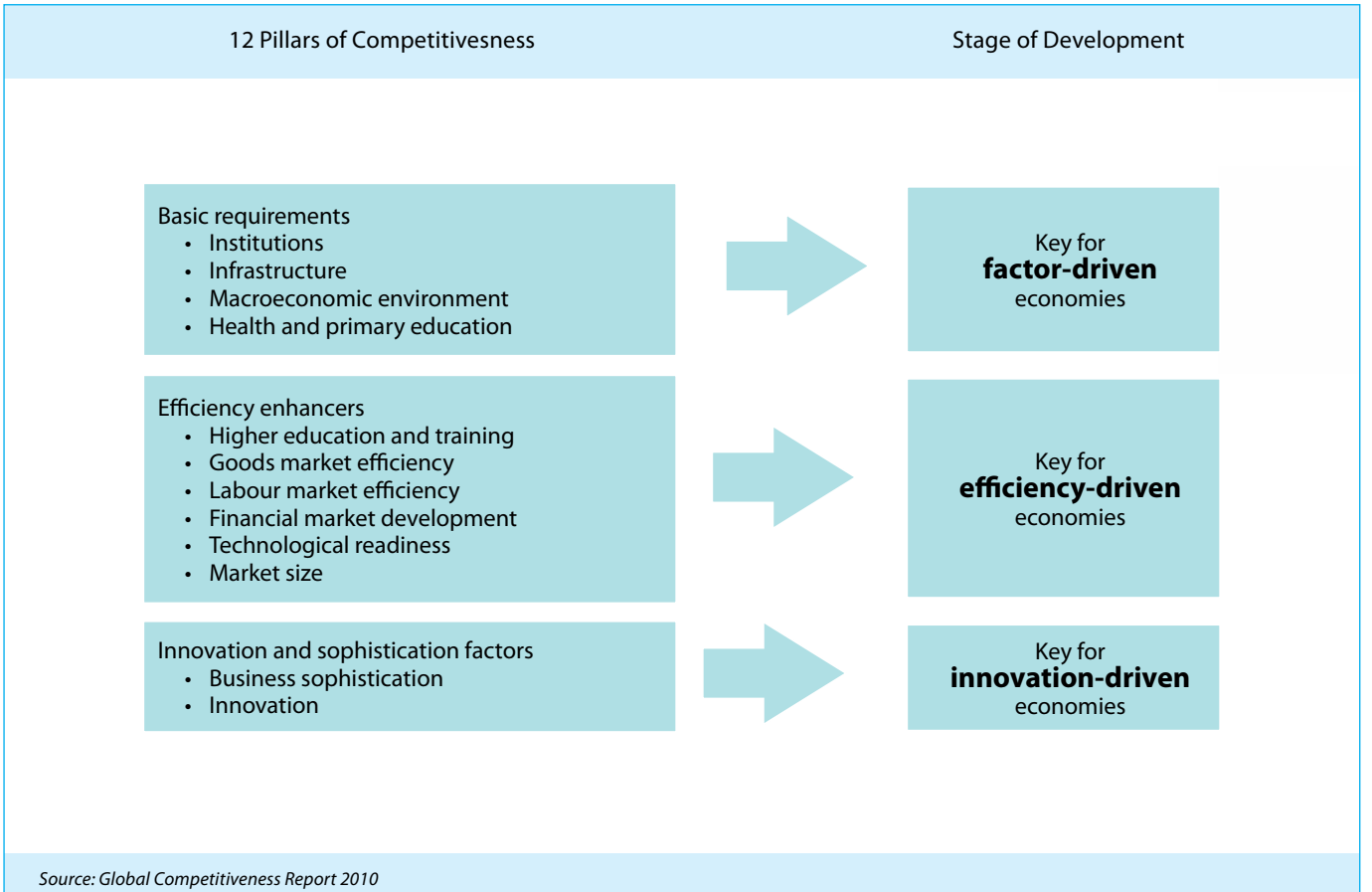
TERMINOLOGY AND DEFINITION

1) **Institute For Management Development (IMD)**
Competitiveness is a field of economic theory, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people.

2) **World Economic Forum (WEF**)
Competitiveness is defined as the set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy. Thus, more competitive economies tend to be able to produce higher level of income for their citizens.

3) **Organization for Economic Cooperation and Development (OECD)**
The degree to which a nation can, under free trade and fair market conditions, produce goods and services, which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term.

4) **Malaysia Productivity Corporation (MPC)**
The degree to which the region (nation) can produce goods and services which meet the test of international markets, out-performing others, while its citizens earn a standard of living that is both rising and sustainable over the long-run.



Source: Global Competitiveness Report 2010

Stage of Development

1) **Factor-Driven Economies** - Basic factor conditions such as low-cost labour and unprocessed natural resources are the dominant basis of competitive advantage and exports. Factor driven economies are highly sensitive to world economic cycles, commodity prices, and exchange rate fluctuations.

2) **Efficiency-Driven Economies** - A country's advantage comes from producing more advanced products and services highly efficiently. Heavy investment in efficient infrastructure, business friendly government administration, strong investment incentives, improving skills, and better access to investment capital allow major improvements in productivity.

3) **Innovation-Driven Economies** - The ability to produce innovative products and services at the global technology frontier using the most advanced methods becomes the dominant source of competitive advantage. An innovation driven economy is characterized by distinctive producers and a high share of services in the economy and is quite resilient to external shocks.

TERMINOLOGY AND DEFINITION

Employees (ILO)
Employees are all those workers who hold the type of job defined as paid employment jobs. Employees with stable contracts are those employees who have had, and continue to have, an explicit (written or oral) or implicit contract of employment, or a succession of such contracts, with the same employer on a continuous basis.

Employers (ILO)
Employers are those workers who, working on their own account or with one or a few partners, hold the type of job defined as a self-employed job, and in this capacity, on a continuous basis (including the reference period) have engaged one or more persons to work for them in their business as employees.

Foreign Direct Investment (FDI)
Foreign Direct Investment (FDI) is the category of international investment that reflects the objective of a resident entity in one economy to obtain a lasting interest in an enterprise resident in another economy.

Gross Domestic Product (GDP)
Gross Domestic Product is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. The total market value of all final goods and services produced in a country in a given year; equals total consumer, investment and government spending, plus the value of exports minus the value of imports.

Gross National Income (GNI)

Gross National Income (GNI) (formerly gross national product, or GNP) is the sum of gross value added by all resident producers plus any product taxes (less subsidies) that are not included in the valuation of output plus net receipts of income from abroad.

Inflation

Broad increase in prices. In practical terms, inflation means goods and services are being valued as more desirable than money. This also affects wages; periods of high inflation tend to be marked by increases in average income. Inflation can be caused by either too few goods offered for sale, or too much money in circulation.

Interest payment

Interest is payable by units that incur certain kinds of liabilities, namely deposits, securities other than shares, loans and accounts payable. Including interest to non-residents, to residents other than general government and to other general government units.

Real GDP Growth

Constant price estimates. In theory, the price and quantity components of a value may be identified and base periods prices are substituted for those of the current period. Methods are used in practice to calculate variables at constant prices. Another method, commonly referred to as price deflation, involves dividing price indexes into the observed values to obtain volume estimates. The price indexes used are constructed from prices of the major items of each value.

Total labour force

The total labour force, or currently active population, comprises all persons who fulffill the requirements for inclusion among the employed or the unemployed during a specified brief reference period.

Unemployment

Unemployment is defined unemployed as people who are jobless, looking for jobs, and available for work. Unemployed persons comprise persons aged 15 to 64 who were: without work during the reference week, i.e. neither had a job nor were at work (for one hour or more) in paid employment or self-employment; currently available for work, i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week; actively seeking work, i.e. had taken specific steps in the four weeks period ending with the reference week to seek paid employment or self-employment or who found a job to start later, i.e. within a period of at most three months.

Linkages and Multiplier Approach

We measure the Malaysian economic development by employing inter-industry I-O based production model that includes linkages and multiplier approach. Linkages measure interconnectedness of sectoral link, where multiplier measures the effect when a unit of increment of "autonomous" investment causes an initial increase in income which generates successive rounds of consumer spending and incomes, each round producing numerically smaller increments until the process worked itself out, i.e. has reached its equilibrium. It summarises the total impact that can be expected from changes in a given economic activity. For instance, a new manufacturing facility and an increase in export by a local firm are economic changes which can spur ripple effects or spin-off activities. Multipliers measure these impacts generally on how much inputs to be used to produce a certain unit of output.

Output Multiplier

Output multiplier is a measure of a weighted average of all sector's output multiplier and describes an increase in the economy's overall output resulting from a Ringgit increase in final demand, assuming ceteris paribus. It describes initially an increase in inputs after many rounds of effects comprising direct, indirect and induced effects produced an increased output effects.

Income Multiplier

Income multiplier is the weighted average of all sector's salaries and wages multipliers and it describes an increase in overall salaries and wages resulting from a Ringgit increase in final demand. With additional employment in sectors that generate the economy more goods and services can be yielded. This will in turn churned more output which can be marketed in the domestic market and exported which will increase the country's income. Thus, the higher the employment multiplier the higher output level and spin as a catalyst for economic development of the country.

Employment Multiplier

The overall employment multiplier is a weighted average of all sector's employment in the economy and describe an increase in employment resulting from a particular output of a thousand Ringgit increase in the final demand quadrant. Thus, if an output of one industry expanded, it generated more than its initial impact from an impact such as increase in investment.

APPENDIX E - CONTRIBUTION BY SUB-SECTORS, 2010

Code	Sub-sectors	Total Output (RM Million)	Share of Total Output (%)	Added Value (RM Million)	Share of Added Value (%)	Number of Employee	Share of Added Employee (%)
15	Food Products and Beverages	102,334	16.04	11,222	10.99	148,593	10.69
16	Tobacco Products	629	0.10	180	0.18	2,563	0.18
17	Textiles	5,691	0.89	1,154	1.13	27,838	2.00
18	Wearing Apparel; Dressing and Dyeing of Fur	3,845	0.60	976	0.96	50,901	3.66
19	Tanning and Dressing of Leather; Manufacture of Handbags, Saddlery, Harness and Footwear	710	0.11	231	0.23	8,517	0.61
20	Wood and Products of Wood and Cork, except Furniture; Manufacture of Articles of Straw and Plaiting Materials	7,520	1.18	1,488	1.46	48,577	3.49
21	Paper and Paper Products	7,324	1.15	1,324	1.30	28,828	2.07
22	Publishing, Printing and Reproduction of Recorded Media	45,741	7.17	6,419	6.29	52,623	3.78
23	Coke, Refined Petroleum Products and Nuclear Fuel	38,547	6.04	3,348	3.28	6,821	0.49
24	Chemicals and Chemical Products	58,909	9.23	13,598	13.32	63,869	4.59

Code	Sub-sectors	Total Output (RM Million)	Share of Total Output (%)	Added Value (RM Million)	Share of Added Value (%)	Number of Employee	Share of Added Employee (%)
25	Rubber and Plastic Products	43,708	6.85	8,304	8.13	170,828	12.29
26	Other Non- Metallic Mineral Products	15,892	2.49	3,762	3.68	49,220	3.54
27	Basic Metals	43,792	6.86	4,821	4.72	46,474	3.34
28	Fabricated Metal Products, except Machinery and Equipment	20,420	3.20	4,374	4.28	87,984	6.33
29	Machinery and Equipment, n.e.c.	21,097	3.31	5,031	4.93	64,075	4.61
30	Office, Accounting and Computing Machinery	35,570	5.57	4,261	4.17	52,623	3.78
31	Electrical Machinery and Apparatus, n.e.c.	19,762	3.10	3,281	3.21	54,525	3.92
32	Radio, Television and Communication Equipment and Apparatus	105,837	16.59	17,070	16.72	200,278	14.41
33	Medical, Precision and Optical Instruments, Watches Clocks	9,331	1.46	1,932	1.89	37,865	2.72
34	Motor Vehicles, Trailers and Semi-Trailers	27,614	4.33	4,117	4.03	56,692	4.08
35	Other Transport Equipment	9,317	1.46	2,277	2.23	22,704	1.63
36	Furniture; Manufacturing n.e.c.	14,488	2.27	2,945	2.88	107,910	7.76

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