
Economic and Digital Job Market Outlook in Malaysia 2021

ECONOMIC AND DIGITAL JOB MARKET OUTLOOK IN MALAYSIA 2021



- 13th Edition
- Publication inaugurated in 2008
- Published in collaboration with Jobstreet and with support from MDEC
- Analysis and insights into economic, industry and digital job market
- Recent salary landscape and outlook

In collaboration with



Supporting Organisation



Published by



What's in this Publication

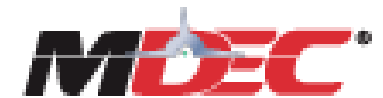
SECTION 1. Economic Review and Outlook

SECTION 2. Digital Economy Review and Outlook

SECTION 3. Digital Employment and Salary Trends

SECTION 4. Regional Benchmarking for Digital Jobs and Salaries

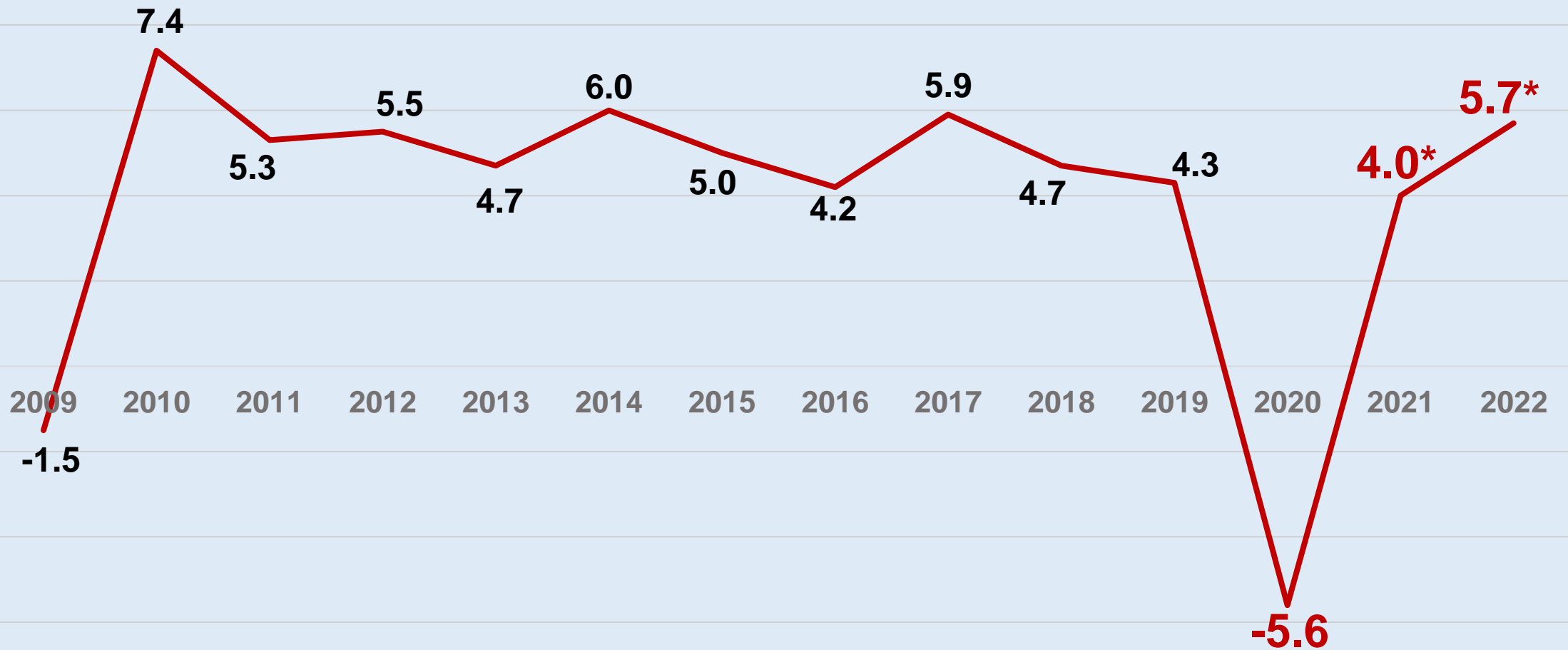
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SECTION A

Economic Review & Outlook

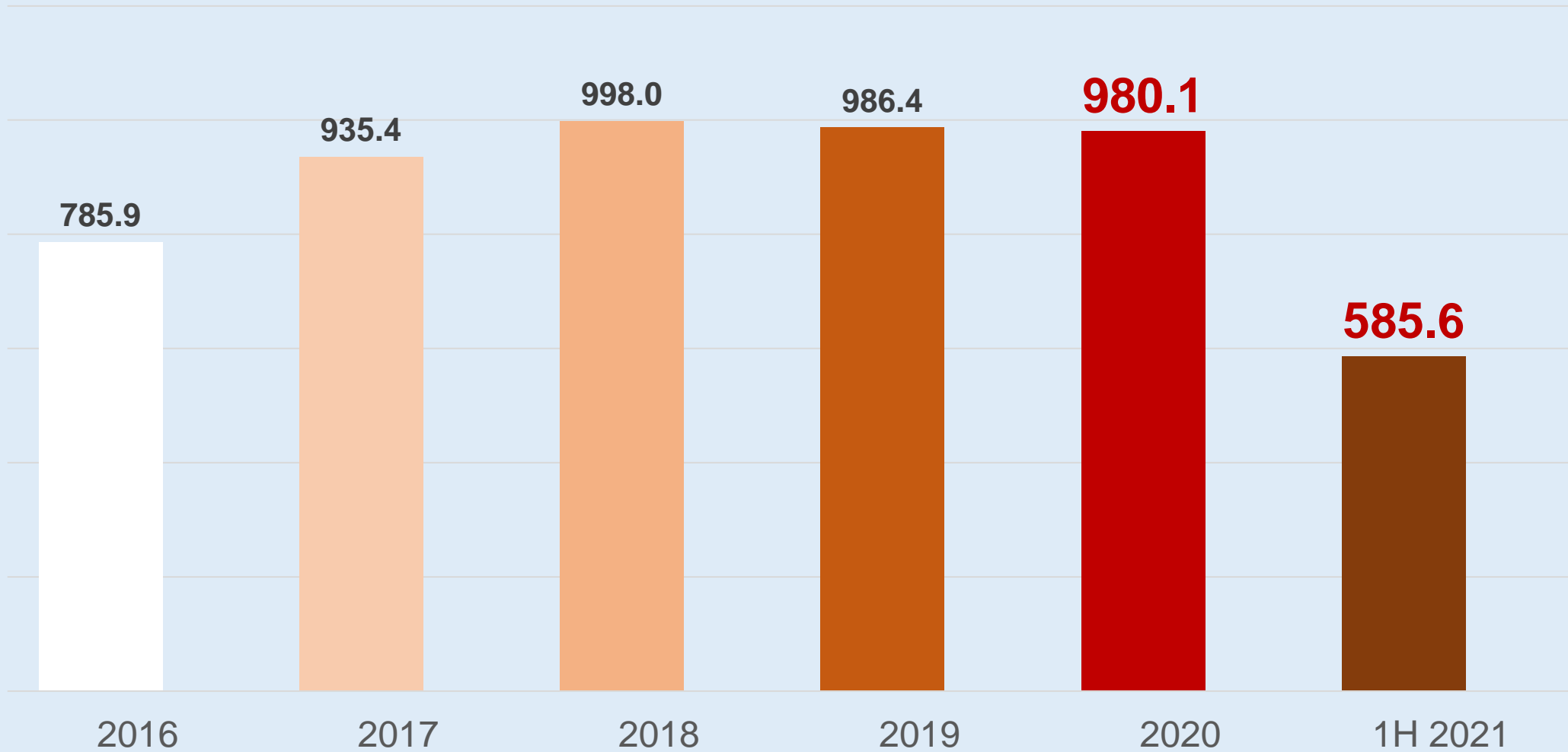
Malaysia's GDP Growth Rate (%) 2009 - 2022



* Forecast

Sources: DOSM, BNM, ADB

Annual Exports (RM billion) 2016 – 1H 2021

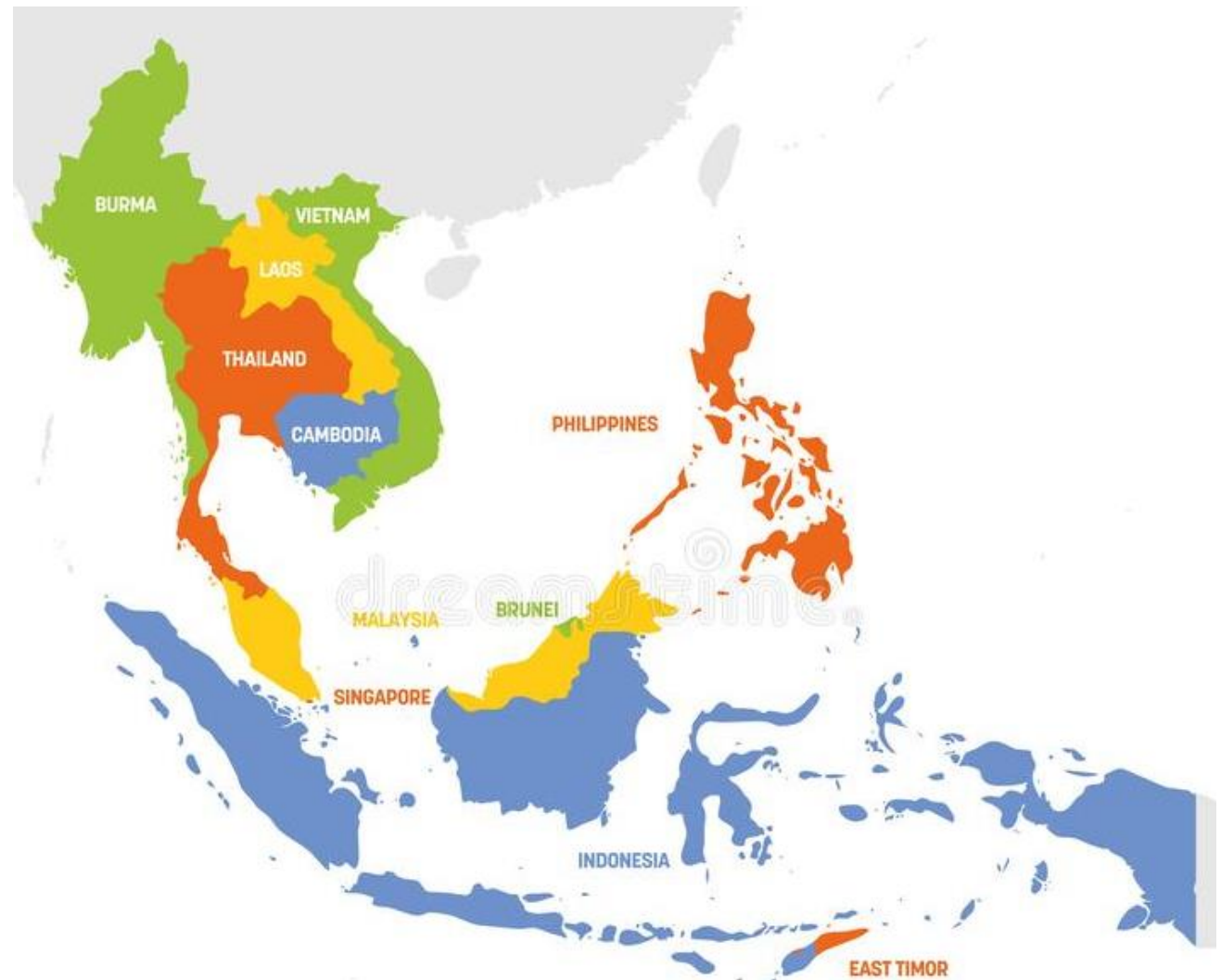


Sources: DOSM, MITI, MATRADE

Comparison of FDI 2020

WORLD	↓	42%
ASEAN	↓	31%

Philippines	↑	29%
Vietnam	↓	10%
Indonesia	↓	24%
Singapore	↓	37%
Thailand	↓	50%
MALAYSIA	↓	68%



Source: UNCTAD

Inflation Rate / Forex / Unemployment Rate

June 2021

2.2%



Inflation

-1.2%

2020

2 Aug 2021

RM4.2255



Forex

RM3.9965

2 Jan 2021

Q2 2021

4.8%



Unemployment

4.8%

Q1 2021

Malaysia Economy Growth Forecast 2021



IMF	6.5%
ADB	5.5%
WB	4.5%
Ambank	4.0 - 4.5%
OECD	4.3%
BNM	3.0 – 4.0%
Fitch	0.0%

PIKOM's Projections

2022

4.5-5.0%



GDP

7.0%



Fiscal Deficit

3.5%



Inflation

RM4.2*



Forex

2.25-2.75%*



Int. Rates

2021

2.0-2.5%

6.5%

0.5-1.5%

RM4.3

1.75%

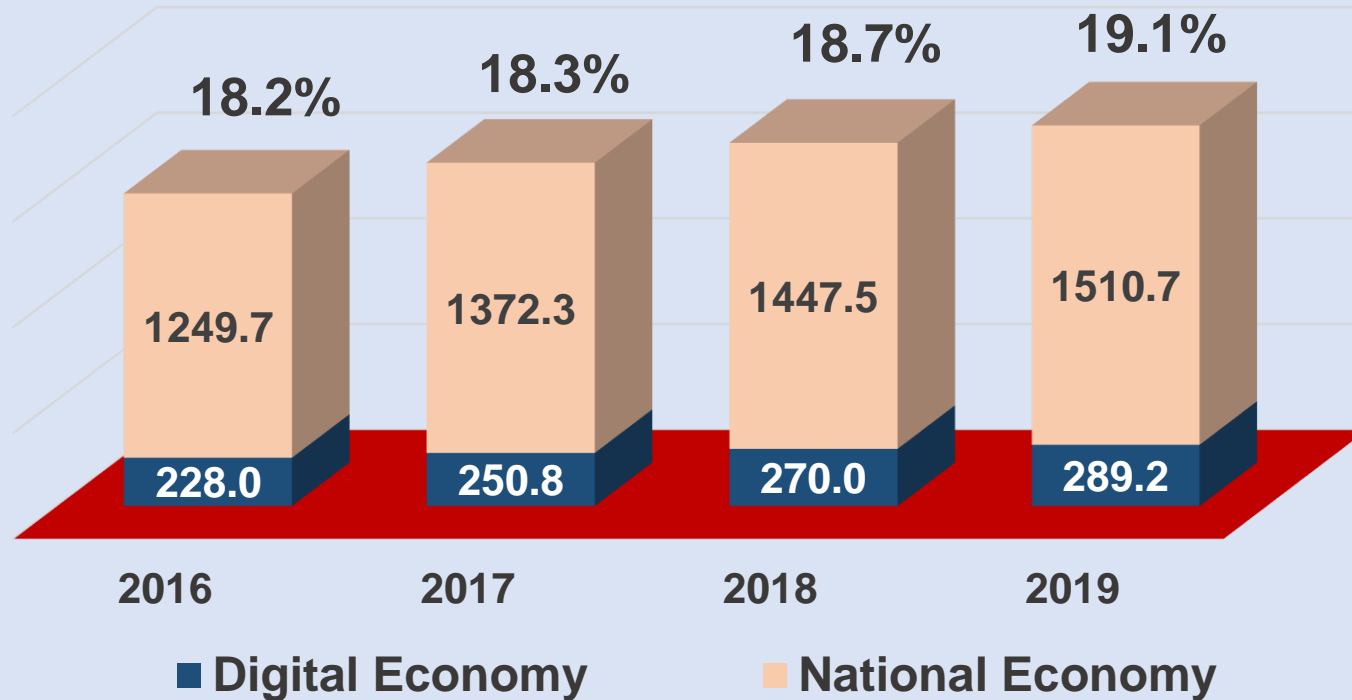
**mid-2022 onwards*

SECTION B

Digital Economy Review & Outlook

Share of Digital Economy to National Economy (RM billion) 2016 - 2022

In RM Billion

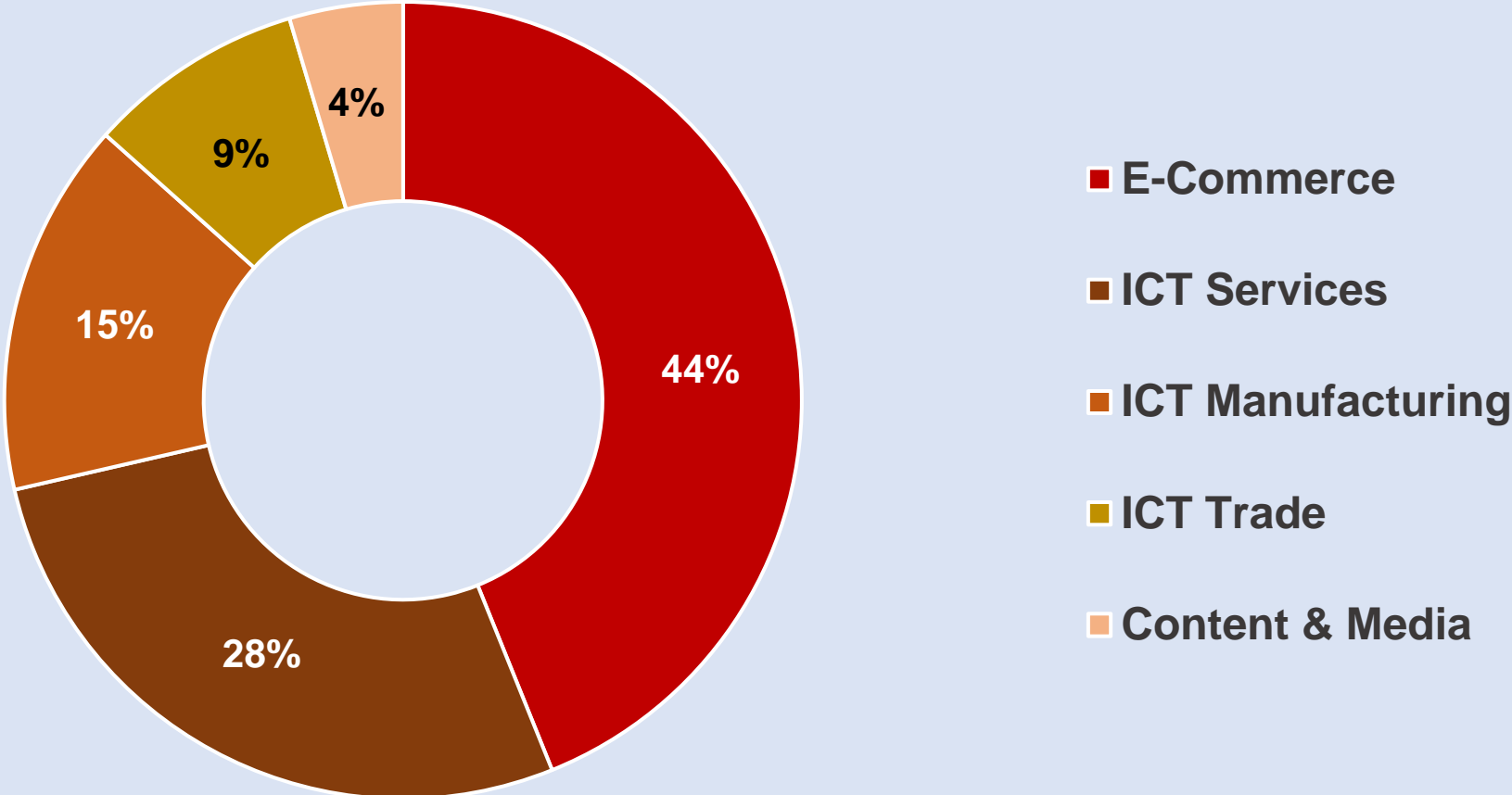


	2020*	2021*	2022*
Share (%)	21.7%	22.4%	23.4%
Digital Economy (RM Billion)	309.4	331.1	356.9
National Economy (RM Billion)	1426.1	1,476.0	1,527.7

*The Digital Economy forecasts for 2020 and 2021 are based on a growth rate of 7.0% each year while the projection for 2022 is based on the 2016 – 2021 AAGR of 7.8%. These are juxtaposed against the National Economy using the announced 2020 contraction of 5.6%, the middle ground of BNM’s projection of 3.0 - 4.0% (3.5%) for 2021 and the 2016 – 2021 AAGR of 3.5% for 2022.

Source: DOSM & PIKOM Estimates

Share of Digital Sub-sectors to Digital Economy (%) 2019 - 2020

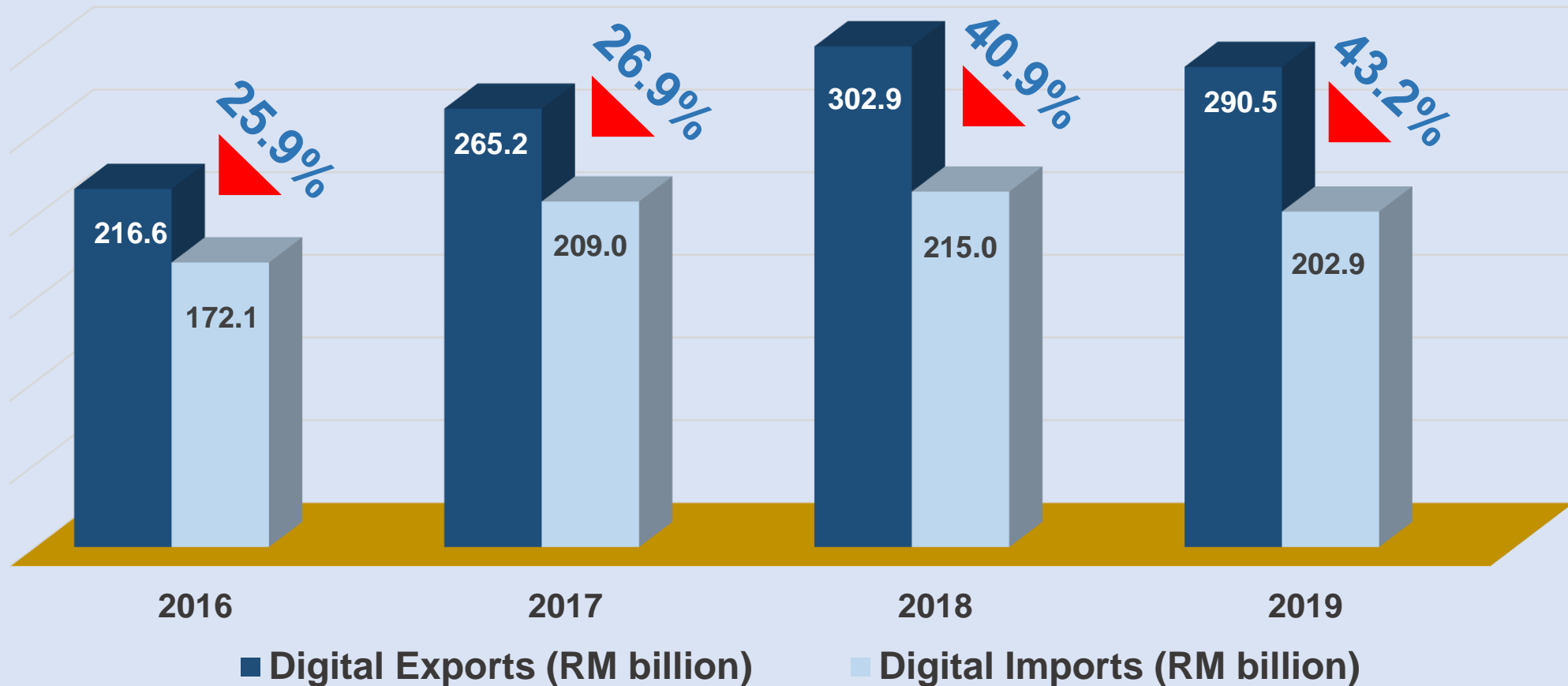


Figures have been rounded off

Source: DOSM

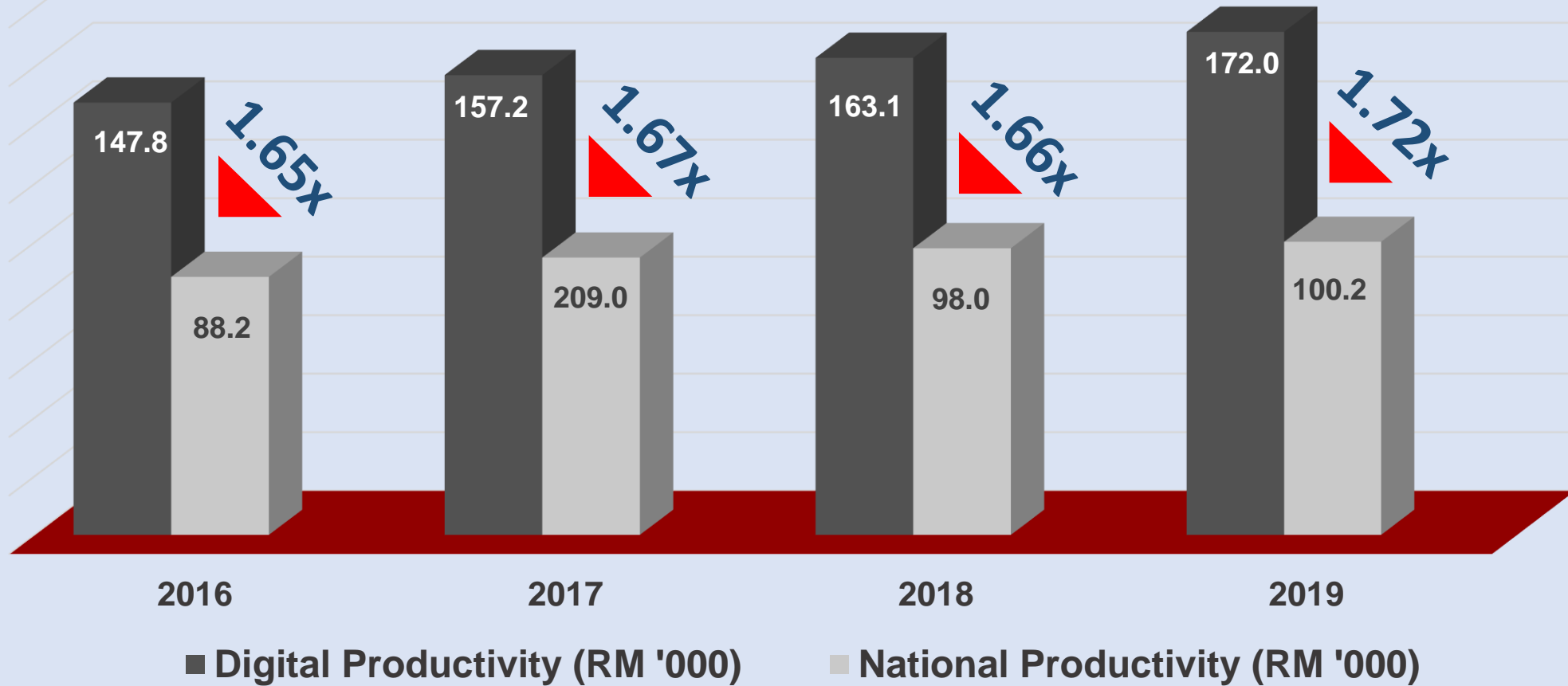
Digital Exports Versus Digital Imports (% difference) 2016 - 2019

Malaysia is a growing net exporter of digital products and services. The difference digital exports and digital imports has increased significantly over the past 4 years (2016 – 2019).

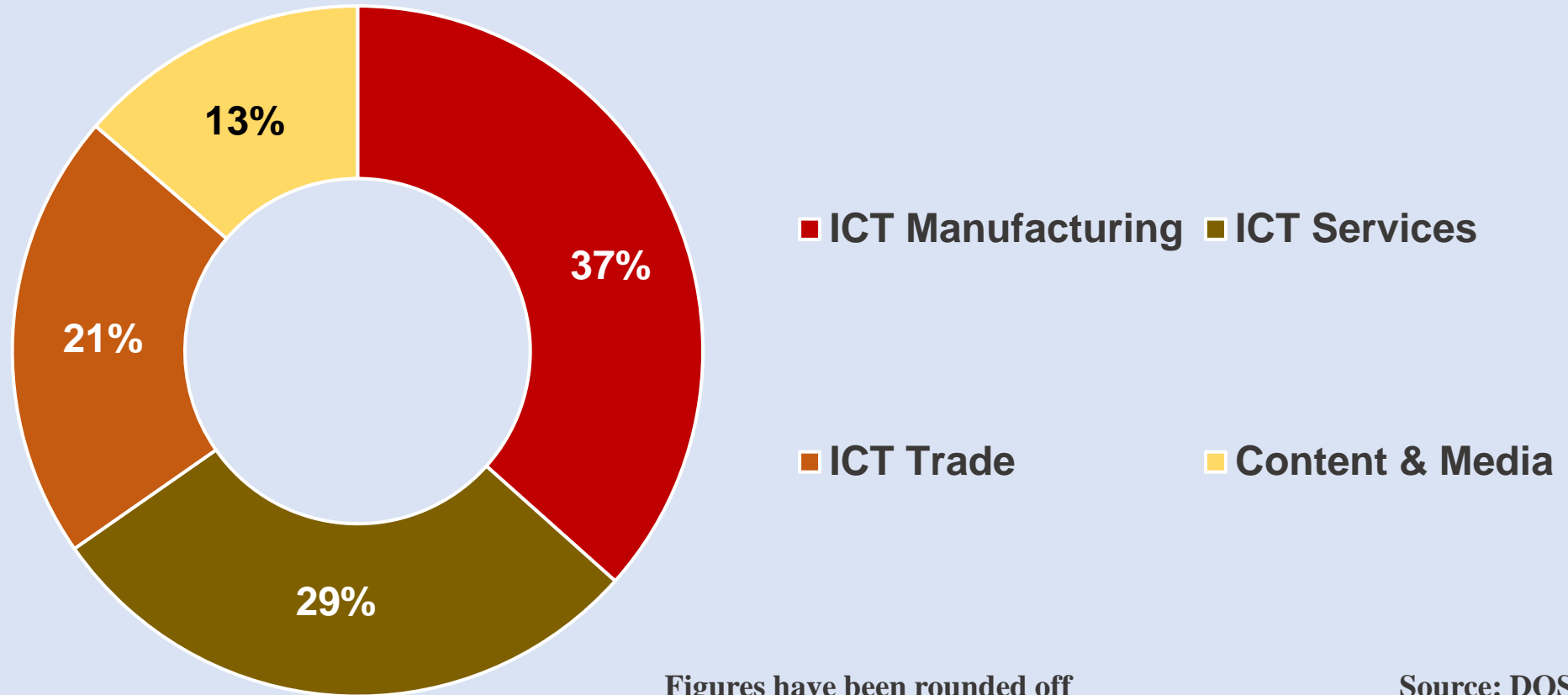


Productivity Factor (Digital Versus National) (Times - X) 2016 - 2019

Digital Productivity has been consistently higher than National Productivity by a significant factor. This factor increased in 2019 and looks set to grow further.



Share of Employment by Digital Sub-Sectors 2019 - 2020



Key Takeaway

1

Digital economy will have surpassed 20% GDP contribution by 2020 based on our projection - 21.7% (AAGR 7.0%)

4

Major contributors to digital industry remain E-Commerce, ICT Services, and ICT manufacturing (87%); ICT Trade and Content & Media 13%

2

2022 GDP contribution estimated at 23.4% (AAGR 7.8%)

5

Bulk of employment from digital sub-sectors ICT Services and ICT Manufacturing

3

Pandemic has accelerated digital industry growth and reshaped landscape – eCommerce, online services, digitalization, connectivity

SECTION C

Digital Employment & Salary Trends

**APPROACH &
METHODS**

MEAN

PERCENTILE

QUARTILE

MEDIAN

AGGREGATED AVERAGE GROWTH RATE (AAGR)

Mean (average)

salary are calculated by adding together a list of salaries and dividing by the number of salaries on the list and also means that extremely high and extremely low salaries have the same weight in the final average. Mean salary reporting can sometimes be misleading if the data includes a few unusually high or low salaries

Percentile

(or Centile) is a term used in statistics to indicate the value below which is given a percentage of the observations in a group of observations or dataset.

Quartile is derived from the word quarter which means one fourth of something and here is the salary spectrum. There are first, second and third quartile ie $1/4$; $2/4$ and $3/4$ or 25th, 50th and 75th.

What is median salary?

Median salary is a figure that takes many salaries into account and reports the middle number in that set of salaries. When you see a median salary, you know that half of the salaries reported are less than that number and half are higher.

Why is median salary important?

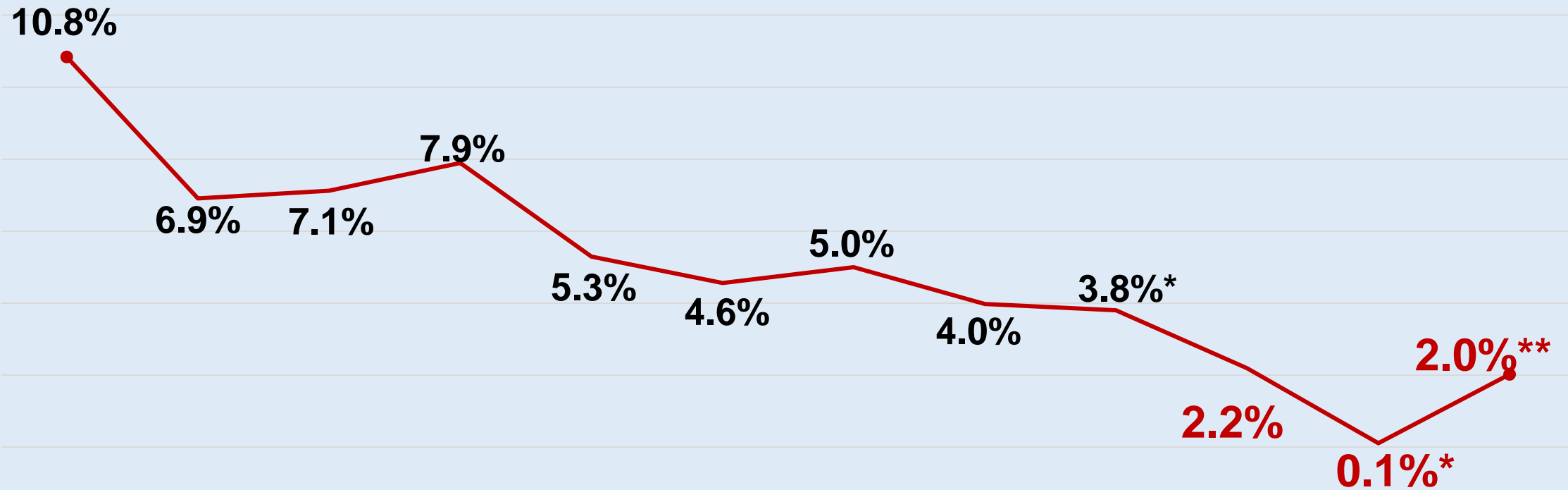
Knowing the median salary of a specific industry or job can be useful as it will indicate if a certain salary or range is at par, higher or lower than the industry median. It is also closely linked to the concept of percentile quartile.

Levels and estimated years of Experience*



*Used in Section C and quoted in Ringgit.

Overall Average Monthly Salaries of Digital Professionals (RM) / Growth Rate (%) 2010 - 2022

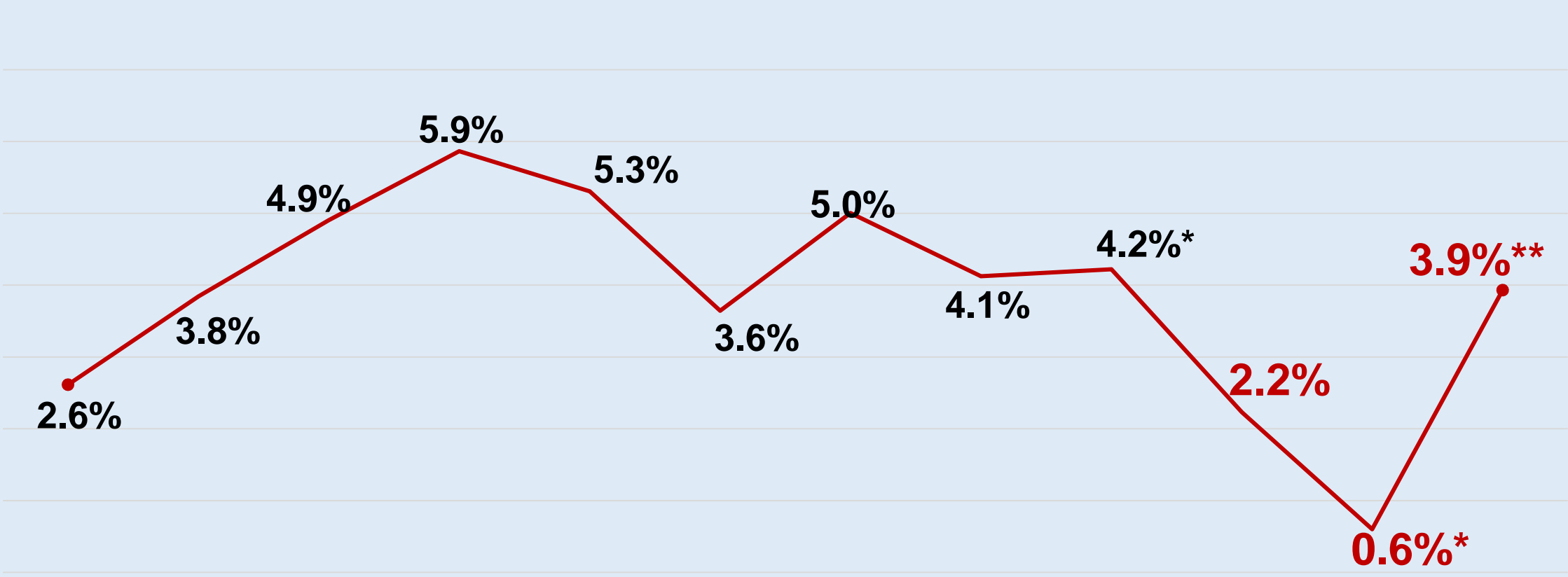


2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021*	2022**
5,626	6,236	6,667	7,142	7,706	8,114	8,484	8,908	9,262	9,614	9,825	9,835	10,034
AAGR (2010 – 2020) = 5.8%												

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Average Monthly Salaries of Entry Level Digital Professionals (RM) / Growth Rate (%) 2010 - 2022

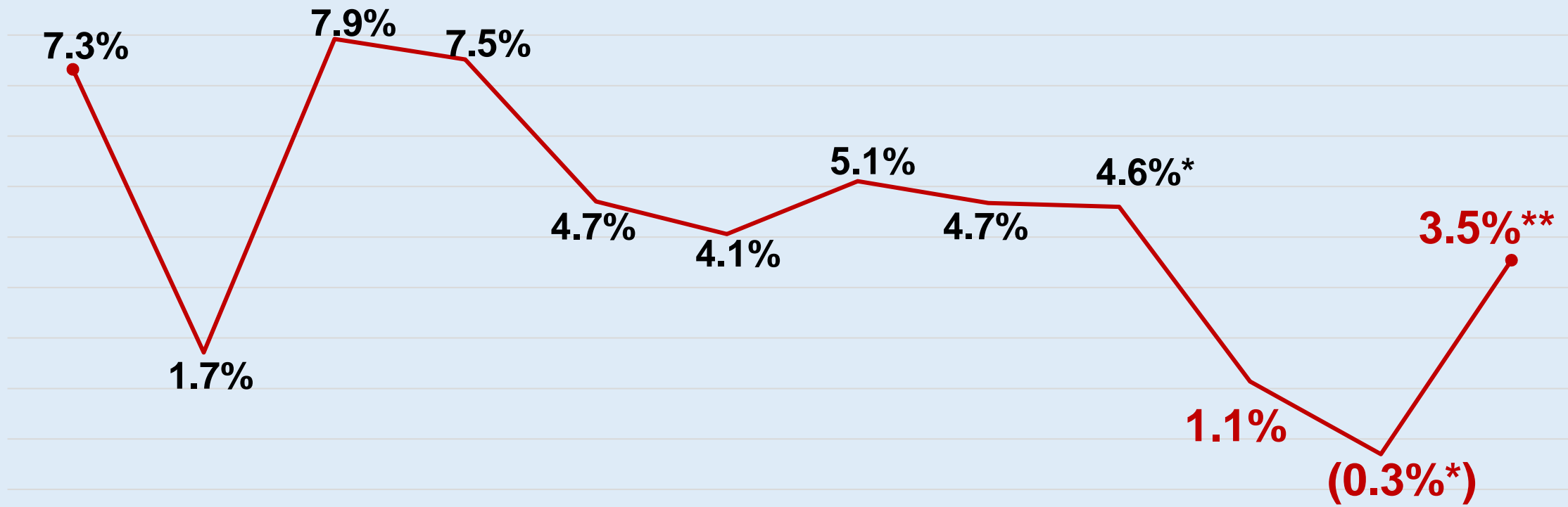


AAGR (2010 – 2020) = 4.7%

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Average Monthly Salaries of Junior Executive Digital Professionals (RM) / Growth Rate (%) 2010 - 2022



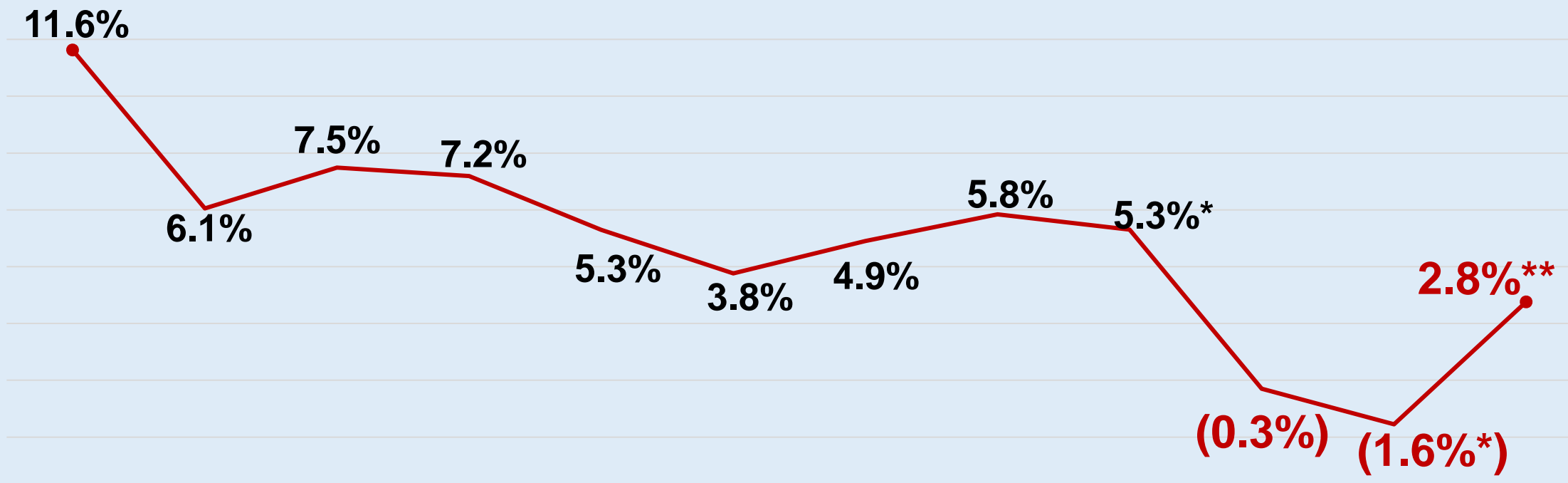
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021*	2022**
2,936	3,151	3,205	3,459	3,719	3,894	4,052	4,259	4,458	4,663	4,716	4,702	4,868

AAGR (2010 – 2020) = 5.0%

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Average Monthly Salaries of Senior Executive Digital Professionals (RM) / Growth Rate (%) 2010 - 2022



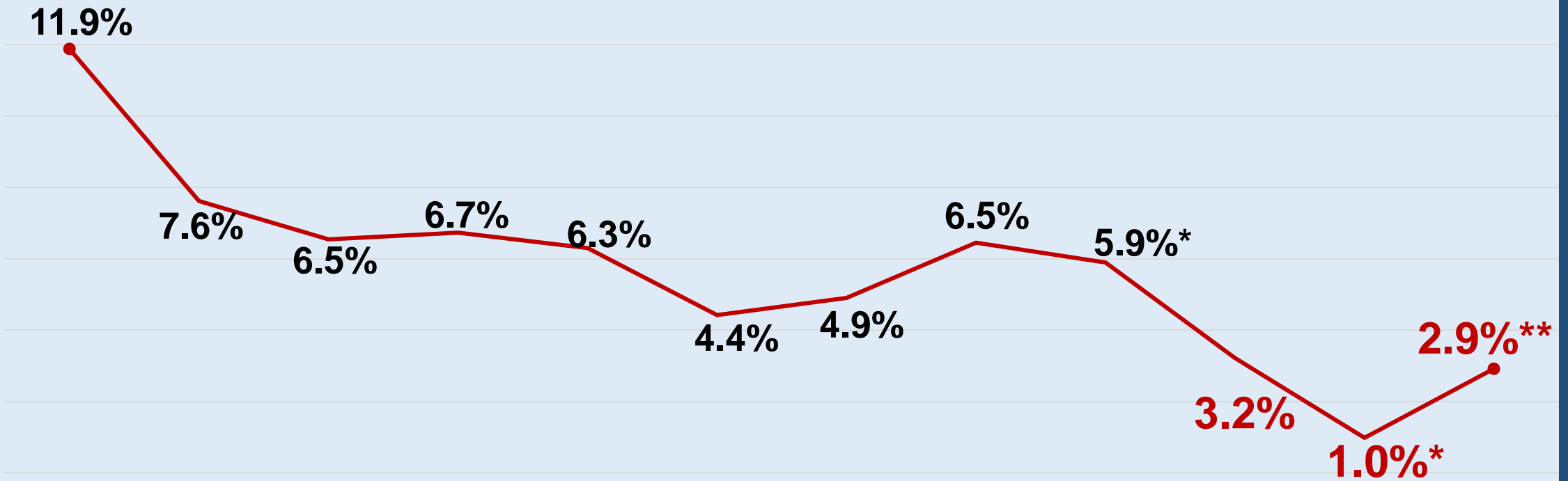
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021*	2022**
4,514	5,039	5,344	5,744	6,157	6,483	6,727	7,057	7,469	7,865	7,841	7,720	7,933

AAGR (2010 – 2020) = 5.6%

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Average Monthly Salaries of Manager Level Digital Professionals (RM) / Growth Rate (%) 2010 - 2022

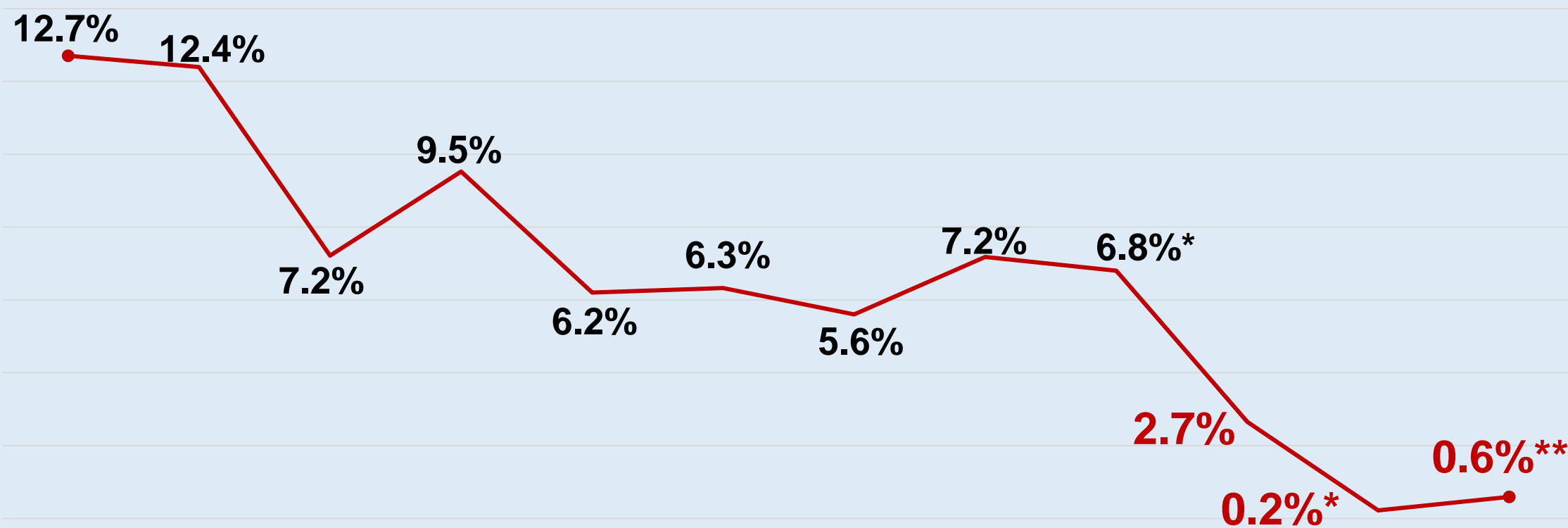


2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021*	2022**
7,005	7,837	8,434	8,986	9,591	10,195	10,646	11,168	11,888	12,589	12,994	13,122	13,505
AAGR (2010 – 2020) = 6.6%												

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Average Monthly Salaries of Senior Manager Level Digital Professionals (RM) / Growth Rate (%) 2010 - 2022



2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021*	2022**
10,795	12,166	13,674	14,661	16,057	17,053	18,132	19,147	20,521	21,916	22,497	22,546	22,679

AAGR (2010 – 2020) = 8.5%

* Extrapolated ** Forecast

Sources: Jobstreets & PIKOM estimates

Top Paying Industries for Digital Professionals (Average Monthly Salaries) 2020 / 2021

2020



Electrical &
Electronics

RM12,775



Telecommunication

RM11,005



Oil/ Gas / Petroleum

RM10,977



Science & Technology
/ Aerospace / Bio-
Technology

RM10,943



Call Centre / IT-
enabled Services /
BPO

RM10,904



Property / Real Estate

RM10,830

2021



Electrical &
Electronics

RM12,532



Call Centre / IT-
enabled Services /
BPO

RM11,666



Property / Real Estate

RM11,544



Telecommunication

RM11,485



Science & Technology
/ Aerospace / Bio-
Technology

RM11,242



Oil/ Gas / Petroleum

RM11,237

Median and Mean salaries 2020 & 2021

2020

Median salary **RM 9,354**

Mean (Average) salary **RM 9,825**


















2021

Median salary **RM 9,132**

Mean (Average) salary **RM 9,835**

Average salaries from 22 industries are used to derive median salary of each industry. Median point taken to calculate median salary is 11.5

Industry Percentile Quartile for 2020 & 2021

Year	Quartile	Industry	Year	Quartile	Industry
2020	1st Quartile (<25%)	Education Printing / Publishing Semiconductor / Wafer Fabrication Utilities Wholesale / Retail / Trading	2021	1st Quartile (<25%)	Automotive  Computer / IT (Software)  Education  Utilities  Wholesale / Retail / Trading 
	2nd Quartile (>25-50%)	Automotive Computer / IT (Software) Hotel / Restaurant / Food Service / Hospitality Manufacturing / Production Transport / Storage / Freight / Shipping		2nd Quartile (>25-50%)	Hotel / Restaurant / Food Service / Hospitality  Manufacturing / Production  Printing / Publishing  Semiconductor / Wafer Fabrication  Transport / Storage / Freight / Shipping 
	3rd Quartile (>50-75%)	Agriculture Banking Computer / IT (Hardware) Construction / Building / Engineering Consulting (Business / Technical) Financial Services / Securities / Insurance		3rd Quartile (>50-75%)	Agriculture  Banking  Computer / IT (Hardware)  Construction / Building / Engineering  Consulting (Business / Technical)  Financial Services / Securities / Insurance 
	4th Quartile (>75%)	Call Centre / IT-Enabled Services / BPO Electrical and Electronics Oil / Gas / Petroleum Property / Real Estate Science & Technology / Aerospace / Biotechnology Telecommunications		4th Quartile (>75%)	Call Centre / IT-Enabled Services / BPO  Electrical and Electronics  Oil / Gas / Petroleum  Property / Real Estate  Science & Technology / Aerospace / Biotechnology  Telecommunications 

Salaries of Cybersecurity Talents (Average, Entry Level, Senior)

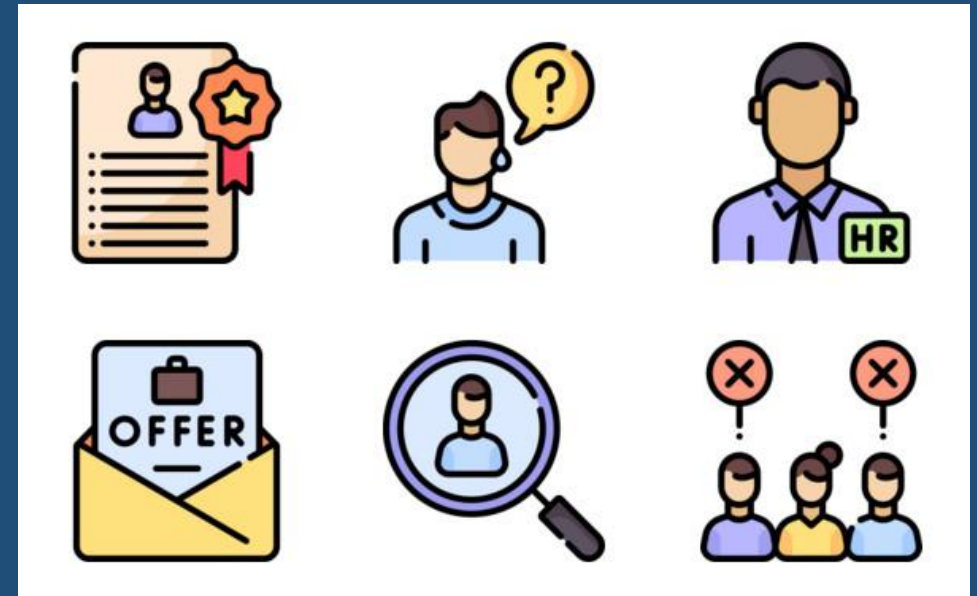
Job Title	Entry Level 1-3 years*	Ratio	Average	Ratio	Senior >10 years*	Ratio
Cybersecurity Specialist	98,780	1.55	136,539	1.58	174,298	1.59
Cybersecurity Director	129,630	1.18	183,231	1.17	236,831	1.17
Cybersecurity Incident Handler	86,680	1.76	118,787	1.81	150,893	1.84
Cyber Intelligent Analyst	89,346	1.71	123,306	1.74	157,265	1.76
Cybersecurity Manager	97,511	1.57	134,557	1.60	171,603	1.62
Cybersecurity Consultant	77,045	1.98	105,228	2.04	133,411	2.08
Cybersecurity Analyst	96,102	1.59	133,217	1.61	170,331	1.63
Cybersecurity Engineer	115,841	1.32	157,935	1.36	200,028	1.39
CISO	152,640	1.00	215,070	1.00	277,500	1.00
Average per annum	104,842		145,319		185,796	
Average monthly	8,737		12,110		15,483	
CIO	214,700	0.71	313,295	0.69	400,589	0.69

*Quoted in Ringgit.

**Relevant experience in cybersecurity*

9 Hot Tech Jobs During the Pandemic

1. Web front-end development engineer
2. Database administrator
3. Cyber security specialist
4. UI designer
5. Software development engineer
6. Big data development engineer
7. Project manager
8. Internet marketing/operation
9. Tester



Key Takeaway

1

Despite some impact from pandemic, salaries in digital industry were sustained on back of growth in sectors such as eCommerce

4

Job demand and salary growth in cybersecurity continue to outpace industry average

2

Digital talents in senior levels were most affected in 2021 in terms of vacancies and salaries

5

Job losses and pay cuts are not expected to be reversed in the near term

3

Better prospects for salary growth at entry to manager levels, salaries for senior manager to remain flat in 2022

6

Concern that talent supply may outstrip demand in next few years depending on domestic and global growth

SECTION D

Regional Benchmarking for Digital Jobs & Salaries

Salary Comparison of 8 Digital Jobs in Selected Economies (1st of 2 slides)

Countries	Forex	IT Consultant	Ratio	System Administrator	Ratio	Network Engineer	Ratio	Hardware Engineer	Ratio
Singapore	1.34	51,199	2.08	42,164	3.50	36,226	2.78	64,478	5.57
Malaysia	4.14	24,637	1.00	12,053	1.00	13,020	1.00	11,573	1.00
USA	1.00	79,670	3.23	63,241	5.25	69,473	5.34	89,500	7.73
Australia	1.34	67,058	2.72	48,897	4.06	52,101	4.00	43,284	3.74
India	73.00	12,977	0.53	5,760	0.48	5,448	0.42	4,038	0.35
Hong Kong	7.77	49,537	2.01	38,031	3.16	34,043	2.61	38,610	1.00
Philippines	49.89	11,396	0.46	12,750	1.06	11,587	0.89	6,160	0.53
Thailand	32.41	21,476	0.87	18,315	1.52	18,514	1.42	15,915	1.38
Vietnam	22,805.00	9,779	0.40	7,981	0.66	7,630	0.59	7,894	0.68
Indonesia	14,263.00	10,242	0.42	14,022	1.16	6,848	0.53	7,712	0.67
UAE	3.67	53,302	2.16	16,065	1.33	17,302	1.33	47,411	4.10

* quoted in USD

Source: Payscale

Salary Comparison of 8 Digital Jobs in Selected Economies (2nd of 2 slides)

Countries	Forex	Software Engineer	Ratio	Project Manager	Ratio	System Engineer	Ratio	Software Developer	Ratio
Singapore	1.34	38,951	3.45	60,408	2.22	36,694	3.34	33,819	2.82
Malaysia	4.14	11,283	1.00	27,197	1.00	10,994	1.00	12,013	1.00
USA	1.00	90,667	8.04	82,273	3.03	68,788	6.26	74,566	6.21
Australia	1.34	61,113	5.42	74,075	2.72	51,710	4.70	52,462	4.37
India	73.00	6,722	0.60	19,377	0.71	5,125	0.47	6,613	0.55
Hong Kong	7.77	39,308	3.48	62,086	2.28	31,660	2.88	34,106	2.84
Philippines	49.89	8,165	0.72	12,607	0.46	7,114	0.65	6,623	0.55
Thailand	32.41	18,276	1.62	19,593	0.72	18,204	1.66	15,585	1.30
Vietnam	22,805	9,156	0.81	17,540	0.64	7,577	0.69	9,156	0.76
Indonesia	14,263	9,382	0.83	13,672	0.50	10,096	0.92	5,657	0.47
UAE	3.67	32,339	2.87	68,509	2.52	27,248	2.48	31,063	2.59

* quoted in USD

Source: Payscale

Comparison of Digital Job Salaries in Selected Economies – PPP Adjusted

Countries	Non-PPP Ranking	Non-PPP Ratio	GDP Ratio	PPP Ratio	PPP Ranking	
USA	1	5.63	1.00	2.10	1	
Singapore	3	5.30	1.65	1.98	2	
Australia	2	4.02	1.01	1.50	3	
UAE	5	3.93	1.62	1.47	4	
Hong Kong	4	3.24	1.28	1.21	5	
Thailand	6	3.14	2.39	1.17	6	
Malaysia	7	2.68	2.68	1.00	7	
Indonesia	8	2.14	3.12	0.80	8	
Vietnam	10	2.03	3.11	0.76	9	
India	11	1.74	3.40	0.65	10	
Philippines	9	1.69	2.54	0.63	11	

Sources: Payscale & PIKOM Realiberations

THANK YOU
