SKILL GAP REPORT – ICT

Growth of TVET skill supply - ICT sector

Year	Requirement	Completion
2018	36,390	25,947
2019	53,144	40,044
2020 (1st half)	13,154	3,935

ICT skill Supply NVQ levels

NVQ   49% - NVQ 2 – 13.84

NVQ 3 – 46.94

NVQ 4 – 34.78

NVQ 5 – 4.36

NVQ 6 – 0.08

NVQ 7 – 0.05

Non NVQ   51%

Demand Side Sample Interviewed

Company type	Total sample	Western	Outstation	Servicing client's type			Scale of the company		
				Local companies	Foreign clients	Both	Small	Medium	Large
ICT companies	60	85%	15%	80%	12%	8%	69%	20%	11%
BPM companies	30	100%	-	93%	7%	-	44%	22%	33%
Non-IT Private companies	150	74%	26%	93%	3%	4%	48%	36%	16%
Government organizations	60						26%	29%	42%

Definition of Scale of organizations:

As per EDB,

Small scale = Employees less than 25
Medium Scale = 25-200 employees
Large Scale = Over 200 employees

Universe Figures used for projections:

ICT Companies = 600 (Sources: 2019 National IT-BPM Study)
Non-ICT Companies = 102000 (Sources: Business registrar)
BPM Companies = 80 (Sources: EDB)
Government Entities = 860 (Source: Government Websites)

Finding: In the data collection process, it was found that some of the BPM and ICT sector organizations have been closed down.

Source of Sample Universe : Company Registrar, National IT-BPM Workforce Survey 2019, EDB, Expert Interview in Demand Side

ICT Companies – MoE – 12%
BPM Companies – MoE – 14%
ICT Users Private – MoE – 8%
ICT Users Govt – MoE – 12%

ICT Sector Skills Supply By Public Institutes - 2019

Name of the institute	No. Recruited	No. Completed	No. Dropped out
DTET	4,962	3,277	1,002
MPMA	549	549	-
NAITA	2,517	2,651	335
NGO	1,671	1,431	240
NIBM	3,350	789	76
NYSC	7,364	5,933	1,255
Ocean University	22	-	-
Other Government	1,493	1,125	236
SLIOP	294	186	50
UNIVOTEC	204	128	4
VTA	7,485	5,706	512

Source: TVEC

Projected ICT Workforce by Major Occupational Groups

Current WF

509,779

Projected ICT workforce in Non ICT companies is estimated to be 509,779 Majority like 55% each has been contributed by Data Entry Operators.

ICT User Companies - Private

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Deputy Director IT	816	0.2%	50%	50%
Director IT	1,809	0.4%	100%	0%
Senior Manager / Manager IT	20,205	4.0%	89%	11%
Software engineer	23,405	4.6%	79%	21%
Hardware Technician	7,752	1.5%	79%	21%
IT Officer / IC executive	14,652	2.9%	73%	27%
IT assistant	24,514	4.8%	71%	29%
Computer / Data entry Operator	282,638	55.4%	46%	54%
Computer Programmers	40,698	8.0%	28%	72%
Web Developers	93,290	18.3%	57%	43%

Projected ICT Workforce by Major Occupational Groups

Current WF

12,728

Projected ICT workforce in Government Organizations is estimated to be 12,728. Majority like 84% each has been contributed by Data Entry Operators.

ICT User - Government Organizations

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Deputy Director IT	70	0.6%	50%	50%
Director IT	70	0.6%	50%	50%
Senior Manager / Manager IT	280	2.2%	88%	13%
Software engineer	176	1.4%	60%	40%
Hardware Technician	70	0.6%	100%	0%
IT Officer / IC executive	491	3.9%	43%	57%
IT assistant	836	6.6%	38%	63%
Computer / Data entry Operator	10,735	84.3%	47%	53%

Estimated ICT Teachers in Schools = 10000 (assuming each school have at least one IT teacher)

Projected ICT workforce by major occupational Groups

Current & Next two years

	Current	Next two years
ICT companies	66,262	12,098
BPM companies	1,879	1,118
Non ICT companies	509,779	302,641
Government Organizations	12,720	12,366
Total	**590,648**	**328,605**

Current and future expectation on different occupation – ICT companies

ICT occupational Group	Current %	Future %
Database dev. & admin	1.1	2.9
User interface eng:	0.2	1.2
Business analysis	8.1	27.0
System / Network Eng.	0.6	3.1
Software engineering	34.8	22.5
Software project management	1.3	4.1
Software Quality assurance	2.2	8.2
Client Support	0.9	3.9
Business Development	35.7	10.9
ICT & Technical support	0.4	16.2
Innovators & Researches	0.1	0.2

Projected ICT workforce major occupational Group to the universe

ICT occupational Group BPM Companies	Current %	Future %
Customer service	13.6	19.9
Document management	9.5	18.7
Data analysis	43.5	25.1
Finance & Accounting	11.8	15.6
Human resource Management	11.7	9.5
IT help desk	9.8	10.6
Legal services	-	0.2
Procurment	0.2	0.3

Education composition in current ICT workface

	Professional Qualification / Degree	NVQ Qualification	A/L or Post-secondary	Unskilled
All	44.9%	11.6%	17.8%	11.3%
ICT companies	51.0%	11.7%	12.7%	12.7%
BPM companies	43.1%	3.8%	26.3%	6.2%
Non ICT companies	34.1%	14.8%	21.6%	20.5%
Government Organizations	37.7%	32.8%	8.2%	8.3%

Most Lacking skill sets of the candidates who apply for the skilled worker level

Cognitive skills   – 42%

Fundamental skills   – 38%

Functional skills   – 33%

Managerial skill   – 32%

Interpersonal skill   – 27%