WHITE PAPER

MICROSOFT MARKET IMPACT STUDY: A SOUTH AFRICAN PERSPECTIVE

June 2004

IN THIS WHITE PAPER

In April 2004 BMI-TechKnowledge was commissioned by Microsoft South Africa to calculate the impact of Microsoft software and related services on the South African economy. This study is a localisation of a worldwide IDC study conducted in 2002. As independent researchers, BMI-T provides an unbiased view of the South African IT marketplace.

Despite criticism of Microsoft South Africa's repatriation of a large portion of its software revenue, the fact remains that Microsoft nevertheless has an impact on the local economic and social environment. In this study BMI-T quantifies Microsoft's contribution to the South African economy.

BMI-T addresses the following issues in the pages that follow:

The effect that the global IT industry has had on economies around the world.

A quantification of the effect that Microsoft South Africa, its channel partners and end-user IS departments have on the local economy.

An examination of Microsoft's go-to-market strategy.

Typical policies governments can adopt to lay the foundation for a successful domestic IT industry.

EXECUTIVE SUMMARY

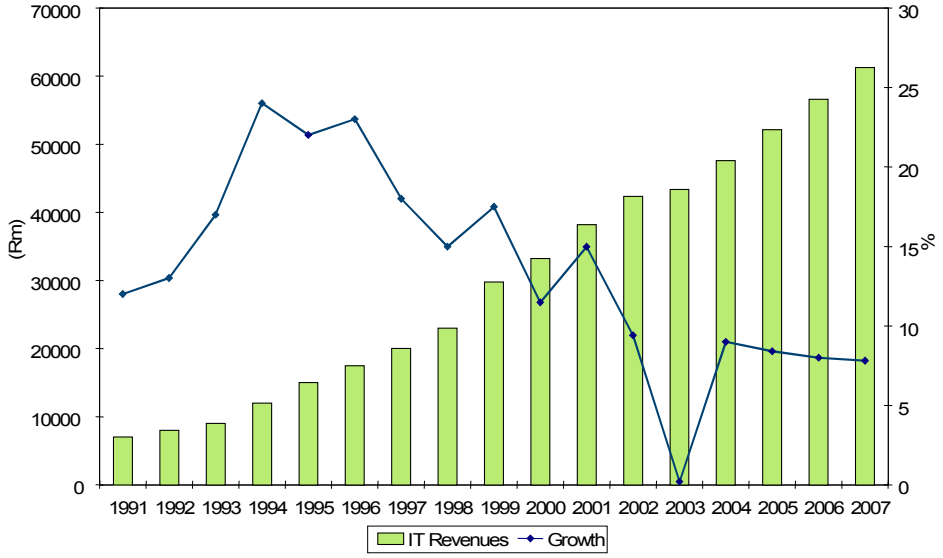
The global market for IT products and services amounted to $916 billion in 2003, generating millions of highly skilled, high-wage jobs and tens of billions in annual tax revenues.

At the same time, businesses across the economy are using IT to become more productive and competitive, thereby promoting economic growth and raising standards of living. Though the global economic downturn (in South Africa the relatively strong Rand and therefore fewer exports have led to economic uncertainty) have had a negative impact on growth in dollar terms (showing -9.5% growth), the South African ICT market grew by 1.0% in Rand terms in 2003 to a value of R41,5 billion.

Estimates suggest that the South African IT market will grow by 9.7% (in Rand terms) in 2004, amounting to R45,5 billion.

FIGURE 1

Historical growth in South African IT industry revenues, 1991-2007



Source: BMI-T, 2004

Like any industry, the growth rate in the IT industry is slowing. This is an indication of the industry's maturity and size. It is more difficult to show high growth in a high revenue industry than it is to show high growth in a small industry with low revenues.

For much of the past decade, industries in the IT sector achieved average annual growth of more than 10 percent – well above the growth rate realised by the global economy as a whole. The global market for IT products and services reached almost $1 trillion in 2003 and is projected to exceed $1.2 trillion in 2008.

The rapid growth of the IT industry has generated millions of high-wage, highly skilled jobs within the industry as well as countless millions more jobs in a range of supporting industries. The IT industry has also emerged as a major source of tax revenues – not only through corporate tax payments, but also through income taxes paid by IT workers and from value-added taxes on sales of IT products and services.

The packaged software industry alone generated an estimated $186 billion in global annual tax revenues during 2003 – with roughly 50.8% of that amount flowing to jurisdictions other than the United States.

The IT industry also spurs growth in ways not so easily captured by statistics. Investments in IT help organisations become more efficient and their workers to be more productive. This, in turn, allows firms to expand output and increase wages without raising prices. This phenomenon of using IT to raise productivity has helped several nations with deep business investments in IT to achieve higher levels of real, non-inflationary growth and rising standards of living.

Finally, the IT industry presents unique opportunities for developing countries. Many experts believe that the emergence of the internet and similar IT-based innovations may help level the economic playing field for firms in developing countries and even enable these countries – in the words of a recent WTO conference – to 'leapfrog' stages of development. As a recent United Nations report concluded:

> [I]t is because the Internet revolution is relevant not just to the high-tech, information-intensive sectors but also to the whole organisation of economic life that its positive effects are spilling over more quickly into most sectors of the economy and that developing countries stand a better chance of sharing in its benefits earlier than in previous technological revolutions.

Worldwide IT market shares, 2003

The following table depicts worldwide IT market shares for selected countries in 2003 with forecasted revenues to 2008.

TABLE 1

Worldwide IT market shares 2003 – 2008

Worldwide share (%)	2003	2004F	2005F	2006F	2007F
Australia	1.7	1.6	1.6	1.6	1.6
China	2.7	3.1	3.3	3.6	3.8
Hong Kong	0.3	0.3	0.3	0.3	0.3
India	0.6	0.7	0.8	0.9	1.0
Indonesia	0.2	0.2	0.2	0.2	0.2
Japan	10.3	10.0	9.7	9.3	9.1
Korea	1.3	1.3	1.4	1.4	1.4
Malaysia	0.3	0.3	0.3	0.3	0.3
New Zealand	0.3	0.3	0.3	0.3	0.3
Philippines	0.1	0.1	0.1	0.1	0.1
Singapore	0.4	0.3	0.3	0.3	0.3
Taiwan	0.5	0.5	0.5	0.5	0.5
Thailand	0.2	0.2	0.2	0.3	0.3
Vietnam	0.0	0.0	0.1	0.1	0.1
Rest of Asia/Pacific	0.1	0.1	0.1	0.1	0.1
Asia/Pacific excl. Japan	8.7	9.1	9.5	9.9	10.3
Bulgaria	0.0	0.0	0.0	0.0	0.0
Croatia	0.1	0.1	0.1	0.1	0.1
Czech Republic	0.3	0.3	0.3	0.3	0.3
Hungary	0.2	0.2	0.2	0.2	0.2
Poland	0.4	0.4	0.4	0.4	0.5

TABLE 1

Worldwide IT market shares 2003 – 2008

Worldwide share (%)	2003	2004F	2005F	2006F	2007F
Romania	0.1	0.1	0.1	0.1	0.1
Russia	0.8	0.9	1.0	1.1	1.2
Slovakia	0.1	0.1	0.1	0.1	0.1
Slovenia	0.0	0.1	0.1	0.1	0.1
Rest of Eastern Europe	0.3	0.3	0.3	0.3	0.4
Argentina	0.1	0.2	0.2	0.3	0.3
Brazil	0.9	1.0	1.0	1.0	1.0
Chile	0.1	0.1	0.1	0.1	0.1
Colombia	0.2	0.2	0.2	0.2	0.2
Mexico	0.7	0.7	0.7	0.7	0.7
Venezuela	0.1	0.1	0.1	0.1	0.1
Rest of Latin America	0.3	0.3	0.3	0.3	0.3
Egypt	0.1	0.1	0.1	0.1	0.1
Israel	0.3	0.3	0.3	0.3	0.3
Saudi Arabia	0.2	0.2	0.2	0.2	0.2
South Africa	0.5	0.5	0.5	0.5	0.6
Turkey	0.2	0.2	0.3	0.3	0.3
United Arab Emirates	0.1	0.1	0.1	0.1	0.1
Rest of Middle East/Africa	0.5	0.5	0.6	0.7	0.7
Canada	2.7	2.6	2.5	2.4	2.4
United States	41.1	41.1	40.7	40.6	40.3
Austria	0.7	0.7	0.7	0.7	0.7
Belgium	0.9	0.9	0.9	0.9	0.9
Denmark	0.8	0.8	0.8	0.8	0.8
Finland	0.5	0.6	0.6	0.6	0.6
France	5.1	5.0	4.9	4.9	4.8
Germany	6.7	6.6	6.6	6.5	6.5
Greece	0.2	0.2	0.2	0.2	0.2
Ireland	0.2	0.2	0.3	0.3	0.3
Italy	2.7	2.6	2.6	2.7	2.6
Netherlands	1.6	1.6	1.6	1.6	1.6
Norway	0.6	0.6	0.6	0.6	0.6
Portugal	0.3	0.3	0.3	0.3	0.3
Spain	1.4	1.5	1.5	1.6	1.6
Sweden	1.2	1.1	1.1	1.1	1.1
Switzerland	1.2	1.2	1.2	1.1	1.1
United Kingdom	6.6	6.5	6.5	6.5	6.5
Worldwide	100.0	100.0	100.0	100.0	100.0

Source: IDC, 2003

Worldwide IT proportions, 2003

The following table depicts the breakdown of the IT markets of selected countries into three core components, namely hardware, software and services.

TABLE 2

Worldwide IT proportions, 2003

Proportions (%)	Segment	2002	2003	2004	2005	2006	CAGR (2002 - 2006)
Australia	Hardware total	42.2	40.6	39.5	37.8	36.2	-3.76%
	Packaged software total	17.1	15.3	15.4	15.6	15.7	-2.01%
	Services total	40.7	44.1	45.0	46.6	48.1	4.23%
	Total IT	100.0	100.0	100.0	100.0	100.0	
China	Hardware total	74.4	72.1	70.2	67.8	65.1	-3.29%
	Packaged software total	9.3	10.3	10.8	11.6	12.5	7.59%
	Services total	16.3	17.5	19.0	20.6	22.4	8.36%
	Total IT	100.0	100.0	100.0	100.0	100.0	
India	Hardware total	62.6	62.3	61.0	60.5	60.8	-0.72%
	Packaged software total	9.8	9.3	9.5	9.5	9.5	-0.70%
	Services total	27.6	28.4	29.5	30.0	29.6	1.82%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Czech Republic	Hardware total	45.8	43.5	41.9	40.7	40.0	-3.35%
	Packaged software total	19.1	20.5	21.5	22.2	22.6	4.24%
	Services total	35.1	36.0	36.6	37.1	37.5	1.65%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Argentina	Hardware total	32.1	45.6	45.3	45.8	45.7	9.20%
	Packaged software total	18.4	15.9	16.3	15.6	15.4	-4.39%
	Services total	49.5	38.5	38.4	38.6	39.0	-5.80%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Brazil	Hardware total	51.8	50.1	49.3	48.1	47.0	-2.35%
	Packaged software total	16.3	18.5	18.5	18.6	18.7	3.52%
	Services total	31.9	31.3	32.2	33.3	34.2	1.74%
	Total IT	100.0	100.0	100.0	100.0	100.0	
South Africa	Hardware total	43.0	41.4	39.8	37.7	35.7	-4.51%
	Packaged software total	18.0	21.3	21.8	22.6	23.4	6.66%
	Services total	39.0	37.3	38.4	39.7	40.9	1.22%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Canada	Hardware total	38.3	37.0	36.0	35.1	34.3	-2.76%
	Packaged software total	16.9	17.2	17.2	17.3	17.3	0.63%
	Services total	44.8	45.8	46.8	47.7	48.4	1.97%
	Total IT	100.0	100.0	100.0	100.0	100.0	
France	Hardware total	31.1	29.7	29.8	30.2	30.1	-0.77%
	Packaged software total	20.0	21.4	21.9	22.2	22.3	2.83%
	Services total	49.0	48.9	48.3	47.7	47.5	-0.73%
	Total IT	100.0	100.0	100.0	100.0	100.0	

TABLE 2

Worldwide IT proportions, 2003

Proportions (%)	Segment	2002	2003	2004	2005	2006	CAGR (2002 - 2006)
Germany	Hardware total	37.8	34.4	34.8	35.4	35.5	-1.58%
	Packaged software total	21.9	23.7	24.3	24.7	24.9	3.29%
	Services total	40.3	41.9	41.0	40.0	39.6	-0.43%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Sweden	Hardware total	35.9	30.1	27.7	27.7	27.8	-6.21%
	Packaged software total	20.2	22.1	22.7	22.6	22.6	2.84%
	Services total	43.9	47.8	49.7	49.8	49.7	3.11%
	Total IT	100.0	100.0	100.0	100.0	100.0	
United Kingdom	Hardware total	33.0	31.4	32.0	32.5	32.4	-0.41%
	Packaged software total	20.5	21.3	21.6	21.8	21.9	1.66%
	Services total	46.5	47.3	46.4	45.7	45.6	-0.47%
	Total IT	100.0	100.0	100.0	100.0	100.0	
Worldwide	Hardware total	39.4	37.9	38.0	38.0	37.7	-1.11%
	Packaged software total	20.3	21.0	21.1	21.2	21.4	1.29%
	Services total	40.3	41.0	40.9	40.7	40.9	0.41%
	Total IT	100.0	100.0	100.0	100.0	100.0	

Source: IDC, 2003

Software and IT services are projected to serve as key drivers of overall worldwide IT sector growth. The software industry is anticipated to grow at a CAGR of 8.5% in South Africa between 2003 and 2008, while the IT services industry is forecast to experience 10.8% CAGR during the same period.

The IT services industry is the largest portion of the IT sector in South Africa, accounting for 44% of the total IT spend. IT services is the largest contributor to the overall IT sector in most countries.

The IT industry will contribute an increasingly larger segment of national economies as companies rely increasingly on technology in their day-to-day business activities.

INFORMATION TECHNOLOGY'S IMPACT ON NATIONAL ECONOMIES

While the transformation of the industry and the success of the partnership-based business model have helped make the IT industry one of the most dynamic sectors of the global economy, a key question is whether this dynamism has helped fuel growth within individual national economies.

Many IT industry studies tend to highlight the United States' experience in developing and utilising IT to achieve broad economic growth, but offer relatively less insight on whether the U.S. example is an anomaly or part of a wider trend. In the search for the answer to these

questions, BMI-T was commissioned in April 2004 by Microsoft South Africa to determine the company's impact on the South African economy, following on from International Data Corporations' (IDC) 2002 examination of the impact of the IT industry on the economies of over twenty-eight nations around the world.

Under the study, BMI-T examined several key economic indicators including: IT spending, industry growth, employment, and other significant data points. This study demonstrates that IT industry growth in South Africa is remarkably consistent and robust. Despite various regional economic challenges, the IT industry in South Africa grew at a CAGR of 11% between 1998 and 2003. Particularly telling is the fact that IT industry growth outpaced the growth of each South Africa's broader economy during this period. The South African economy grew by 1.9% in 2003.

Moreover, the recent global economic downturn notwithstanding, the South African IT industry is projected to grow at compound annual growth rate (CAGR) of 8.5% between 2003 and 2008.

Global IT spending and estimated contribution to countries' GDP

TABLE 3

Projected IT industry spending and growth in selected countries, 2002 - 2006

Data (US$ million)		2002	2003	2004	2005	2006	CAGR (2002 - 2006)
Australia	Spending	13,448.5	12,753.0	13,241.8	13,787.4	14,533.5	
	Growth	-	(5.2)	3.8	4.1	5.4	1.96%
	GDP (UD$ M)	$362.6	$367.3	$372.1	$376.9		
	IT/GDP	3.83%	4.25%	4.65%	5.09%		
China	Spending	22,609.9	25,251.2	30,014.9	35,081.7	40,558.1	
	Growth	-	**11.7**	**18.9**	**16.9**	**15.6**	**15.73%**
	GDP (UD$ M)	1,262.3	1,403.2	1,559.9	1,734.1		
	IT/GDP	1.93%	2.24%	2.56%	2.91%		
Czech Republic	Spending	2,187.4	2,330.2	2,522.0	2,769.8	3,067.1	
	Growth	-	6.5	8.2	9.8	10.7	8.82%
	GDP (UD$ M)	$59.7	$64.0	$68.6	$73.6		
	IT/GDP	3.60%	3.75%	3.88%	4.02%		
Argentina	Spending	939.8	1,406.1	1,844.2	2,341.0	2,828.6	
	Growth	-	**49.6**	**31.2**	**26.9**	**20.8**	**31.71%**
	GDP (UD$ M)	270.8	280.9	291.4	302.3		
	IT/GDP	1.12%	1.23%	1.35%	1.47%		
Brazil	Spending	9,586.8	8,807.8	9,313.5	9,867.0	10,455.8	
	Growth	-	(8.1)	5.7	5.9	6.0	2.19%
	GDP (UD$ M)	470.7	480.3	490.1	500.1		
	IT/GDP	2.43%	2,58%	2.75%	2.92%		
South Africa	Spending	37,125	41,084	41,511	45,529	49,558	
(In ZAR)	Growth	-	**1.0%**	**9.7%**	**8.8%**	**8.3%**	**7.25%**
	GDP (ZAR M)	1,120,896	1,209,499	1,285,775	1,381,192		
	IT/GDP	3.67%	3.43%	3.43%	3.54%		
Canada	Spending	22,660.2	22,462.1	22,863.7	23,355.8	23,999.9	
	Growth	-	(0.9)	1.8	2.2	2.8	1.45%

TABLE 3

Projected IT industry spending and growth in selected countries, 2002 - 2006

Data (US$ million)		2002	2003	2004	2005	2006	CAGR (2002 - 2006)
	GDP (UD$ M)	705.0	716.3	727.8	739.4		
	IT/GDP	3.99%	4.25%	5.02%	5.40%		
France	Spending	44,432.4	46,983.0	48,219.6	50,406.1	52,790.5	
	Growth	-	(4.0)	2.6	4.5	4.7	4.40%
	GDP (UD$ M)	1,368.1	1,378.0	1,388.0	1,398.1		
	IT/GDP	3.85%	4.09%	4.45%	4.85%		
Germany	Spending	55,116.3	52,653.6	54,094.4	56,833.6	60,396.4	
	Growth		(4.5)	2.7	5.1	6.3	2.31%
	GDP (UD$ M)	1,925.1	1,934.5	1,943.8	1,953.3		
	IT/GDP	3.53%	3.81%	4.14%	4.53%		
India	Spending	4,667.4	5,411.6	6,396.5	7,771.6	9,608.6	
	Growth	-	**15.9**	**18.2**	**21.5**	**23.6**	**19.78%**
	GDP (UD$ M)	532.5	564.9	599.3	635.7		
	IT/GDP	1.03%	1.25%	1.54%	1.89%		
United Kingdom	Spending	56,167.8	55,931.5	57,857.1	61,207.6	65,162.9	
	Growth	-	(0.4)	3.4	5.8	6.5	3.78%
	GDP (UD$ M)	1,485.4	1,532.5	1,581.1	1,631.2		
	IT/GDP	4.28%	4.53%	4.83%	5.15%		
Sweden	Spending	9,824.7	9,299.1	9,616.5	10,337.0	11,090.4	
	Growth	-	(5.4)	3.4	7.5	7.3	3.08%
	GDP (UD$ M)	212.8	209.1	205.5	201.9		
	IT/GDP	5.47%	6.02%	6.74%	7.53%		

Source: IDC, 2002 & BMI-T, 2004

IT industry employment and company growth in selected countries, 2003 – 2008.

Employee figures represent workers employed by IT hardware, software, services and channel firms, IT professionals in end-user organisations and knowledge workers (IT literate employees that use IT on a daily basis).

TABLE 4

Company and employees

Country	Company / employees	2001	2002	2003	2004	2005	CAGR
Argentina	Companies	4,641	3,487	4,565	5,290	6,096	7.05%
	Employees	60,650	36,678	54,864	68,438	85,048	8.82%
Australia	Companies	14,871	15,487	16,457	17,380	18,341	5.38%
	Employees	378,322	401,578	440,204	478,190	518,997	8.22%
Belgium	Companies	10,778	11,047	11,457	11,950	12,496	3.77%
	Employees	260,192	269,354	284,345	303,214	324,809	5.70%
Brazil	Companies	18,074	18,780	19,612	20,480	21,378	4.29%

TABLE 4

Company and employees

Country	Company / employees	2001	2002	2003	2004	2005	CAGR
	Employees	286,533	303,625	324,130	345,927	368,989	6.53%
Canada	Companies	25,738	26,448	27,591	30,211	31,655	5.31%
	Employees	830,249	863,987	921,507	1,062,582	1,140,988	8.27%
Chile	Companies	1,955	1,986	2,052	2,137	2,227	3.31%
	Employees	55,743	57,139	59,912	63,686	67,887	5.05%
China	Companies	42,842	48,223	55,571	63,366	71,954	13.84%
	Employees	1,736,831	2,069,139	2,548,142	3,097,421	3,742,964	21.16%
Costa Rica	Companies	308	324	342	362	384	5.67%
	Employees	11,037	11,948	13,020	14,226	15,464	8.80%
Colombia	Companies	3,936	4,019	4,239	4,422	4,608	4.02%
	Employees	75,468	77,882	84,641	90,144	95,830	6.15%
Czech Republic	Companies	5,754	6,053	6,415	6,779	7,171	5.66%
	Employees	101,238	109,242	119,350	129,677	141,044	8.64%
France	Companies	59,405	61,909	64,280	67,446	70,833	4.50%
	Employees	1,643,258	1,748,445	1,850,216	1,992,139	2,147,050	6.91%
Germany	Companies	78,609	80,761	84,285	88,234	92,677	4.20%
	Employees	2,031,498	2,110,116	2,250,249	2,411,372	2,597,748	6.34%
India	Companies	16,530	18,117	20,540	23,404	26,648	12.68%
	Employees	561,357	635,268	777,021	959,399	1,181,735	20.45%
Israel	Companies	3,033	3,164	3,359	3,549	3,724	5.27%
	Employees	108,971	116,495	128,089	139,591	150,522	8.41%
Italy	Companies	35,937	37,467	39,754	42,349	44,970	5.77%
	Employees	927,234	985,558	1,080,662	1,191,821	1,307,719	8.98%
Japan	Companies	131,675	133,181	138,037	143,367	149,049	3.15%
	Employees	3,481,600	3,501,019	3,689,423	3,899,412	4,126,743	4.34%
Korea	Companies	24,056	24,571	26,830	29,243	31,475	6.95%
	Employees	1,222,913	1,259,235	1,440,450	1,646,735	1,845,255	10.83%
Luxemburg	Companies	724	763	812	868	931	6.49%
	Employees	23,835	25,644	28,020	30,928	34,291	9.52%
Malaysia	Companies	5,431	5,635	6,229	6,764	7,374	7.95%
	Employees	141,610	149,195	173,960	197,310	224,967	12.27%
Mexico	Companies	7,652	7,799	8,024	8,343	8,768	3.46%
	Employees	269,971	278,026	290,699	309,137	334,205	5.48%
Netherlands	Companies	18,348	18,978	19,659	20,711	21,763	4.36%
	Employees	495,109	520,242	547,940	593,526	639,678	6.61%
Singapore	Companies	3,777	3,932	4,241	4,554	4,874	6.58%
	Employees	93,827	98,941	111,117	123,812	137,317	9.99%
Spain	Companies	14,997	15,589	16,374	17,279	18,171	4.92%
	Employees	545,111	577,386	622,743	677,013	731,447	7.63%
Sweden	Companies	15,914	16,623	17,354	18,239	19,155	4.74%
	Employees	443,184	472,686	503,761	543,543	586,010	7.23%
Taiwan	Companies	5,839	5,900	6,316	6,705	7,102	5.02%
	Employees	297,573	300,086	332,916	364,236	396,857	7.46%
United Kingdom	Companies	71,595	74,587	78,253	82,322	86,528	4.85%
	Employees	1,769,492	1,880,315	2,022,443	2,185,084	2,358,836	7.45%
Venezuela	Companies	2,536	2,614	2,740	2,868	3,011	4.39%
	Employees	82,741	86,519	92,476	98,622	105,775	6.33%
South Africa	Companies	9,865	10,471	11,119	11,795	12,510	6.12%
	Employees	217,729	237,489	259,725	283,666	309,689	9.21%

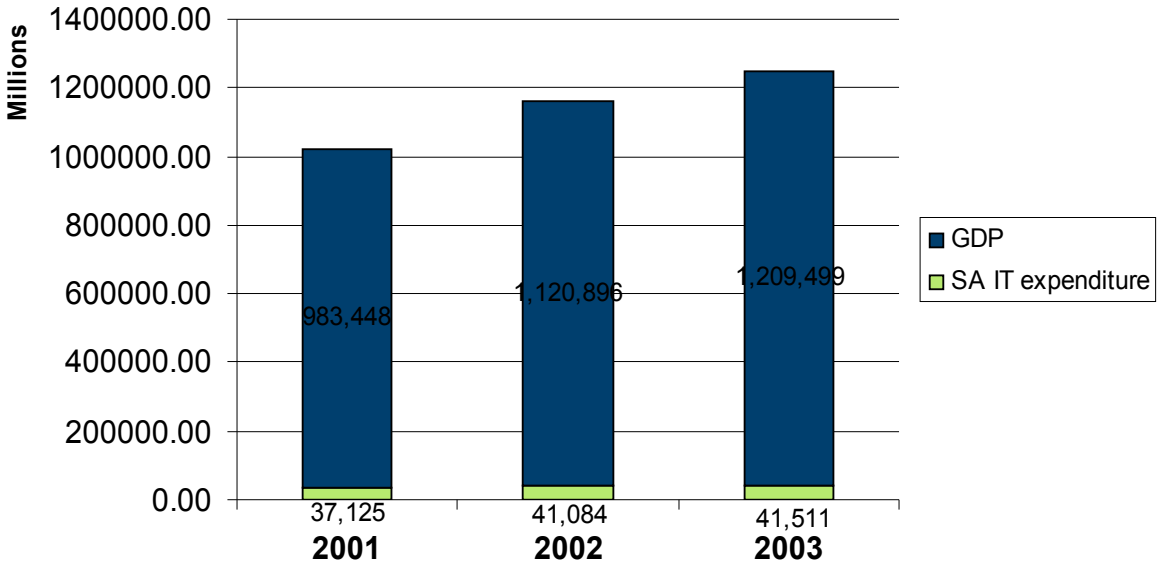
Source: IDC, 2002

In South Africa 11,119 vendor companies service approximately 259,725 knowledge workers in 429,100 South African economically active companies.

THE SOUTH AFRICAN IT INDUSTRY'S CONTRIBUTION TO THE SOUTH AFRICAN ECONOMY

FIGURE 2

IT industry expenditure versus South African GDP, 2001 - 2003



Source: Statistics SA, 2004 & BMI-T, 2004

Despite sluggish growth shown in the IT industry in 2003 (1% growth), IT expenditure in South Africa amounted to approximately R41,511 million in 2003.

End-user expenditure on IT hardware, software and services in South Africa accounted for approximately 3.8% of the gross domestic product (GDP) in 2001, 3.7% in 2002 and 3.4% in 2003.

MICROSOFT SOUTH AFRICA'S CONTRIBUTION TO THE SOUTH AFRICAN ECONOMY

When calculating Microsoft's contribution to the South African economy, the following expenditure categories were considered:

Microsoft-related software and service expenditures by end-user organisations.

Business expenditures by Microsoft channel and Microsoft-related IS department operational expenditures.

Company and personal tax expenditures.

Salary expenditures, and

Employment creation in South Africa.

Software and services expenditure

Approximately R4 billion was spent on Microsoft-related software and services in 2003.

TABLE 1

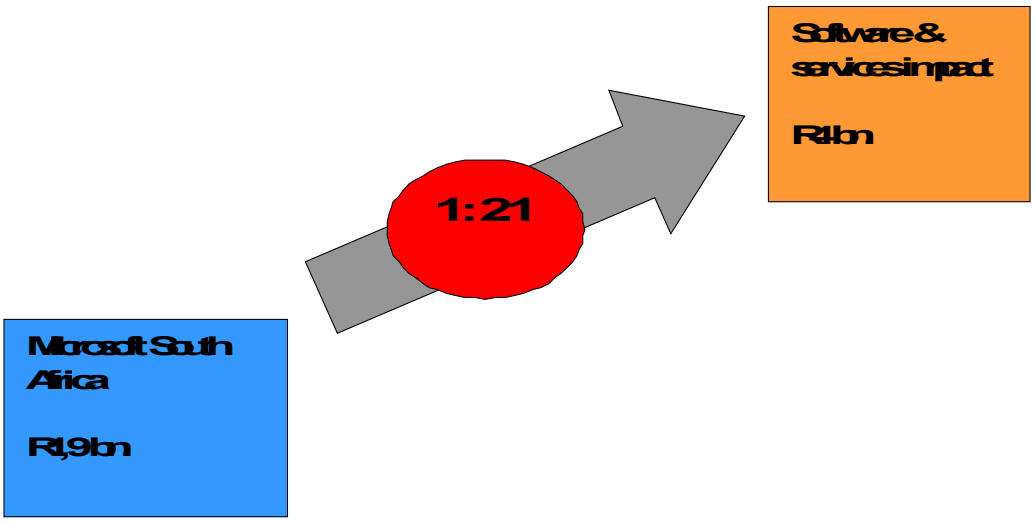
Microsoft-related software and service expenditures by end-user companies in 2003

Region	Revenue
Gauteng	2,654,765,976
Western Cape	586,753,493
KwaZulu-Natal	369,302,405
Eastern Cape	235,268,309
Free State	74,913,317
Mpumalanga	52,641,790
Limpopo	35,229,506
North West	24,296,211
Northern Cape	16,197,474
Total	4,049,368,480

Source: BMI-T, 2004

FIGURE 3

Ratio of Microsoft software sales to Microsoft-related sales generated by partner companies, 2003



Source: BMI-T, 2004

Business expenditure

In South Africa, Microsoft South Africa, the channel and business IS departments' Microsoft-related business expenditure amounted to approximately R2,816 million in 2003.

Business expenditures include buildings and occupancy, materials and suppliers, utilities, bank fees, insurance, travel, entertainment, UIF / skills development, marketing communication and advertising, events, data communications, Internal IT equipment and depreciation, legal services and other.

TABLE 6

Business expenditures, 2003

Regional contribution	Rands
Gauteng	1,846,499,290
Western Cape	408,111,268
KwaZulu-Natal	256,865,063
Eastern Cape	163,638,818
Free State	52,105,303
Mpumalanga	36,614,537
Limpopo	24,503,575
North West	16,899,017
Northern Cape	11,266,012
Total	2,816,502,883

Source: BMI-T, 2004

Tax expenditures

Microsoft-related tax expenditure in 2003 amounted to approximately R2,046 million. This tax expenditure includes personal and company taxes paid by individuals and companies respectively.

TABLE 7

Tax expenditures, 2003

Regional contribution	Rands
Gauteng	1,341,831,650
Western Cape	296,570,174
KwaZulu-Natal	186,661,145
Eastern Cape	118,914,611
Free State	37,864,377
Mpumalanga	26,607,400
Limpopo	17,806,491
North West	12,280,338
Northern Cape	8,186,892
Total	2,046,723,079

Source: BMI-T, 2004

Company taxes accounted for R253 million, while personal taxes accounted for R1,792 million.

Employment impact

The IT industry has created thousands of new jobs and business opportunities. In South Africa, the number of IT industry jobs grew by a CAGR of 14.37 percent between 1995 and 2003.

TABLE 6

Employment, 2003

Regional contribution	Employment
Gauteng	17,042
Western Cape	3,767
KwaZulu-Natal	2,371
Eastern Cape	1,510
Free State	481
Mpumalanga	338
Limpopo	226
North West	156
Northern Cape	104
Total	25,995

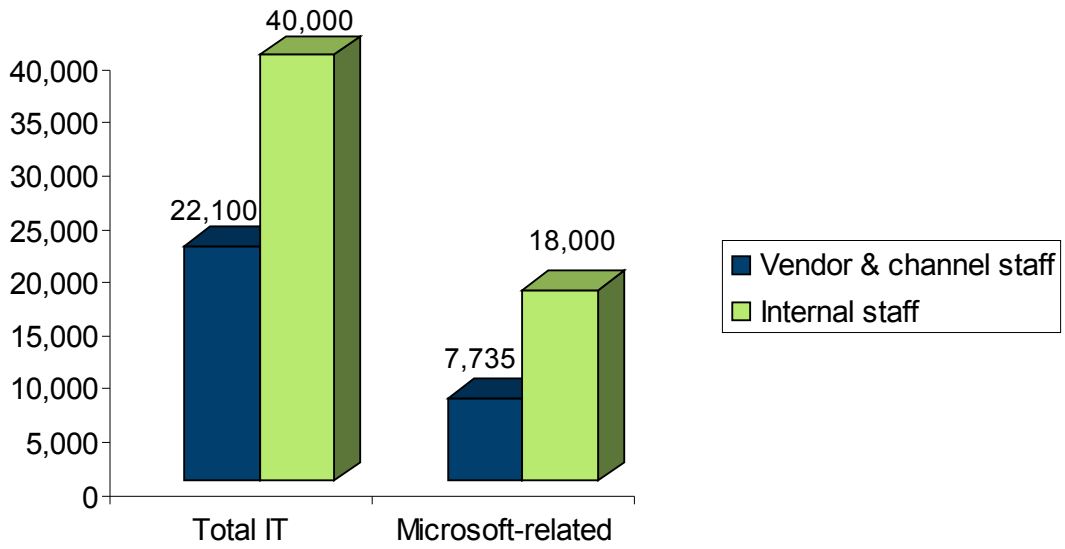
Source: BMI-T, 2004

As a whole, the South African IT industry employs approximately 62,100 people. Microsoft-related employment accounts for approximately 25,995 of the 62,100 IT employees in South Africa.

Since Microsoft South Africa opened its doors ten years ago, over 30,000 Microsoft certifications have been issued by the company.

FIGURE X

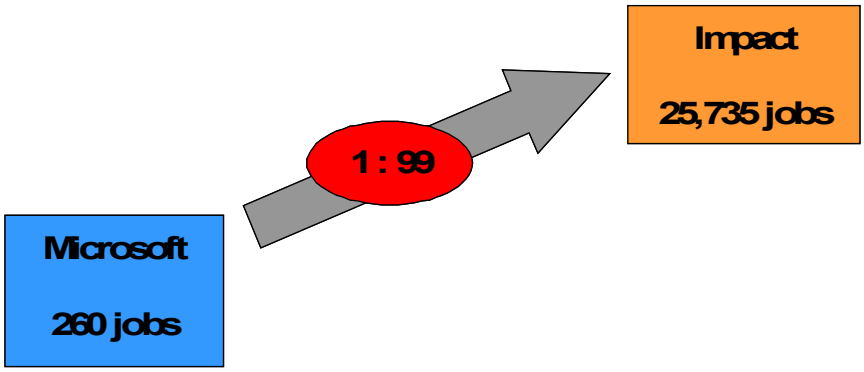
South African IT employment, 2003



Source: BMI-T, 2004

FIGURE 5

Ratio of Microsoft SA employment to Microsoft-induced employment at partner companies and IS departments, 2003



Source: BMI-T, 2004

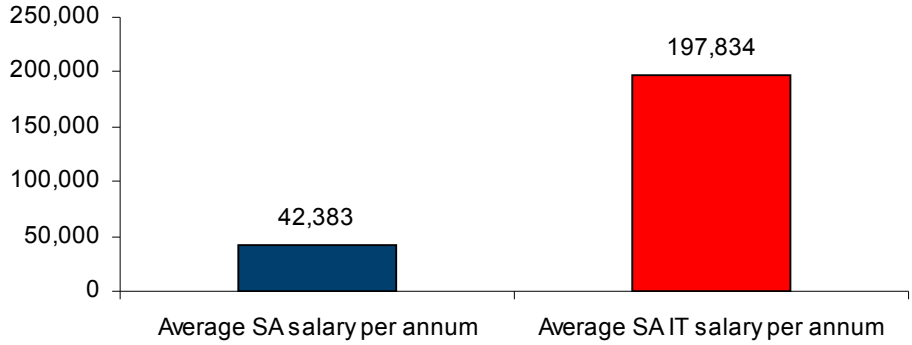
Microsoft South Africa employs 260 people in its South African operation. Microsoft's channel partners employ approximately 7,735 people, while IS departments throughout South Africa retain approximately 18,000 Microsoft-related employees.

Salary impact

Salaries generated in the IT industry are far higher than the average South African salaries. IT salaries are approximately 4,6 times higher than the SA average salary.

FIGURE 6

IT-related jobs generate a high average salary in South Africa



Source: BMI-T, 2004

Due to the educational requirements that are inherent in any IT job, many of the IT jobs are in highly skilled areas that generally pay well above the national wage average. This implies that employees in the IT sector have a higher standard of living than the average South African.

TABLE 9

Salaries, 2003

Regional contribution	Rands
Gauteng	3,422,877,764
Western Cape	756,520,726
KwaZulu-Natal	476,153,832
Eastern Cape	303,339,228
Free State	96,588,222
Mpumalanga	67,872,805
Limpopo	45,422,569
North West	31,325,910
Northern Cape	20,883,940
Total	5,220,984,998

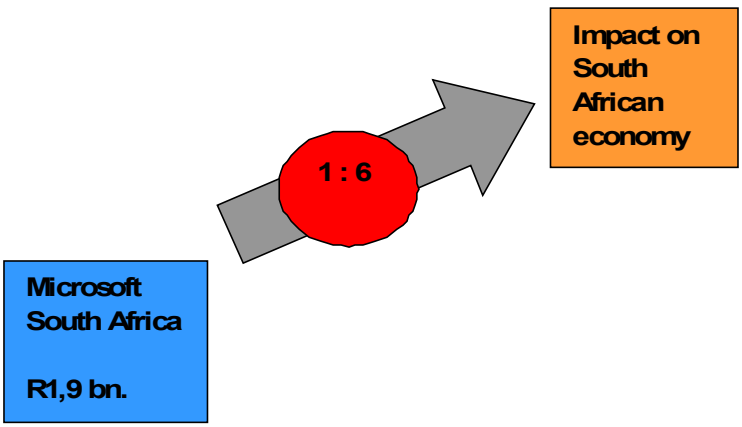
Source: BMI-T, 2004

Microsoft's overall impact on the economy, 2003

For every one Rand spent on Microsoft software in South Africa, another six Rand is generated by the channel, business IS departments and expenditures in the household.

FIGURE 7

Ratio of Microsoft software sales to expenditures by the channel, IS departments and households, 2003



Source: BMI-T, 2004

MICROSOFT'S BUSINESS MODEL

Partnership Fuelling opportunity and growth

Many companies in South Africa have embraced the partnership business model. Microsoft has committed to this go-to-market strategy, with approximately 97% of its revenues being generated through a network of over 5,000 partners across South Africa.

A broad range of advantages grow from partnerships including:

Standardisation and interoperability

IT firms often form partnerships in order to share technical data easily and securely and to work toward common technical standards, both of which are essential to product interoperability.

Consumer benefits

Partnerships allow firms to leverage each other’s strengths and resources so as to offer customers a broader range of innovative products and services.

Revenue opportunities

Partnerships create revenue opportunities in many ways – for instance, by enabling partners to develop new and better products more quickly, by opening avenues to exploit economies of scale, and by reducing costs.

Risk minimisation

Partnerships help firms spread the risks associated with launching new products or entering new markets, thereby reducing the costs of doing so.

Comparative advantages

Firms often use cross-border partnerships to take advantage of regional comparative advantages, such as highly skilled or low-cost labour, favourable investment opportunities, access to new markets, and so on.

Community

Partnerships can foster a sense of community among partnering firms, including ‘virtual communities’ through which partners can communicate with one another and share solutions to common problems.

FUTURE OUTLOOK

As the IT industry grows in South Africa and permeates all industries, it's contribution to the economy will increase, creating more employment and more software and skills export opportunities.

The demand for skilled employees is already outstripping the available supply of skilled employees. In order to ensure that South Africa is ready to embrace opportunities, government and South African companies need to ensure that human resource development plans are fast-tracked.

Microsoft will continue to have a significant impact on the South African economy. Microsoft's research an development, it's large network of partners and its demanding user base throughout South Africa will ensure that Microsoft delivers value, not only through the creation of employment opportunities, but also through increased productivity.

REGULATORY FOUNDATIONS OF A SUCCESSFUL IT INDUSTRY

The role of government

That an IT industry will take root in any given country, is not a foregone conclusion. As numerous studies illustrate, the relative success of a nation's IT industry may depend to a considerable degree on whether its policymakers create a regulatory environment that stimulates IT usage and IT industry growth.

Enact and enforce strong intellectual property laws

Technological innovation constitutes the lifeblood of the IT industry benefiting not only the creators of new technologies, but also consumers (in the form of new and better products), governments (through jobs and tax revenues) and the economy as a whole (through gains in productivity and higher standards of living). Strong intellectual property laws can also attract foreign investment and foster the transfer of technology know-how. Research indicates that companies are more likely to launch technology-intensive ventures in countries with meaningful intellectual property protection. In Europe, governments seeking to create an innovation-friendly regulatory environment may consider updating their intellectual property laws by adhering to the TRIPS Agreement, ratifying the WIPO Internet Treaties and actively enforcing existing intellectual property laws.

Invest in IT education and training

For much of the past decade, the global demand for skilled IT workers has outpaced supply. ISETT SETA estimates that 5,730 ICT jobs in South African remained unfilled in 2003 due to a shortage of skilled IT workers. Failure to address the IT skills gap could have serious consequences. A shortage of IT workers will result in the loss of thousands of potential jobs. If left unresolved, this skills gap could make organisations reluctant to invest in IT products and services, thus leaving them at a disadvantage to their more tech-savvy competitors. Governments that address the IT skills gap aggressively, however, can turn this deficit into an advantage for their own economies. Governments can promote IT education and training in their own countries by providing support for IT training at all levels from colleges and universities to 'lifelong learning' programs; improving science and math opportunities in secondary schools; and removing barriers to hiring foreign IT workers.

Encourage commercialisation of publicly funded research

Governments that encourage the transfer of publicly funded research knowledge to the private sector may benefit enormously. In many countries, state funded university research labs serve as incubators of sorts for start-up IT firms, which develop the knowledge generated in these facilities into useful products.

The result is a synergistic relationship in which these firms help fund university led research programs and, in turn, rely on these programs as a source of new knowledge as well as highly trained scientists and engineers. Governments will be most successful in realising the full benefits of publicly funded research when they institute policies that

encourage the transfer of knowledge between the public and private sectors and that facilitate the commercialization of such knowledge. These policies should: encourage collaboration between public and private researchers, strengthen procedures for transferring knowledge to the private sector and ensure that applicable IP rules promote commercialisation.

Open telecommunications markets to competition

Over the past decade, internet usage has skyrocketed. Starting from a minor share of telecommunications traffic in the early 1990s, internet traffic today exceeds international voice traffic by volume and is expected to constitute more than half of all telecommunications traffic by 2003. In South Africa, industry will be able to satisfy the growing demand for height and width internet applications, however, only if users have access to reasonably priced, sophisticated telecommunications services. Specific policies to support this include: enacting rules that promote competition by dismantling single-provider regimes, supporting capital investments in infrastructure and promoting flexible, technology-neutral rules.

Promote international trade in IT products and services

Barriers to international trade can significantly slow the emergence of a local IT industry. Trade barriers may prevent domestic IT firms from doing business with foreign suppliers or customers, which can result in inferior products and inflated prices. Government procurement policies that extend preferences to domestic firms over their foreign competitors likewise distort international trade. These policies may undermine the development of a strong domestic IT industry by propping up uncompetitive firms and discouraging multinational IT firms from pursuing local partnership opportunities or engaging in foreign direct investment. Brazil's failed 'informatics' policy of the 1970s and 1980s – which sought to promote the development of a domestic IT industry by imposing protectionist measures and preferences for Brazilian firms – highlights the pitfalls of using trade barriers to 'jump-start' a domestic IT industry. International trade is equally critical to the success of e-commerce. The internet allows firms to compete globally while enabling consumers to participate in a vast electronic marketplace. For e-commerce to thrive, however, governments must remove existing barriers to international trade. Although the World Trade Organisation (WTO) remains the primary vehicle for addressing barriers to global trade, WTO members can promote such trade within their own markets by: adhering to existing WTO commitments, ensuring that the same principles that apply to traditional forms of trade apply to e-commerce; continuing the moratorium on e-commerce tariffs; and strengthening trade commitments generally.

Enact balanced, pro-investment tax rules

The success of a nation's IT industry is also influenced by its tax rules. Because IT firms typically invest heavily in R&D – roughly eight percent of annual turnover among large firms – nations that do not offer R&D tax incentives may make it prohibitively expensive for these firms to innovate to the extent necessary to succeed. A nation's tax regime may also impede IT industry growth by subjecting successful start-up companies and their venture capital financiers to high tax rates. The even-handed application of tax rules to e-commerce is also critical.

Taxes that impose undue burdens on e-commerce may slow its uptake and deny a nation's citizens and businesses the many benefits that e-commerce offers. Nations that enact balanced, pro-investment tax rules, by contrast, can give a strong impetus to IT industry growth. Thus, Oxford Analytica found that competitive corporate tax rates in Ireland and tax incentives in Estonia provided an important stimulus to the IT industries in these countries. Governments that wish to make their tax regimes IT-friendly should adhere to the following principles: create tax incentives for IT investments and R&D, reasonable tax rules for e-commerce and tax rates that foster entrepreneurship.

Adhere to market-oriented regulatory principles

The specific regulatory proposals mentioned above will be most successful in fostering a domestic IT industry if they occur in the context of a legal environment that is stable and predictable, promotes competition, and encourages industry to take a leading role in solving business-related problems.

Governments need to establish and enforce the basic background rules against which industry must operate. Governments are most likely to succeed in fostering a pro-consumer and- pro-IT industry environment where their laws embody the principles of industry self regulation, technology neutrality, non-discrimination of laws as they affect IT versus other types of goods and services, regulatory stability and predictability and international consensus on national laws to help enable small businesses to compete globally.

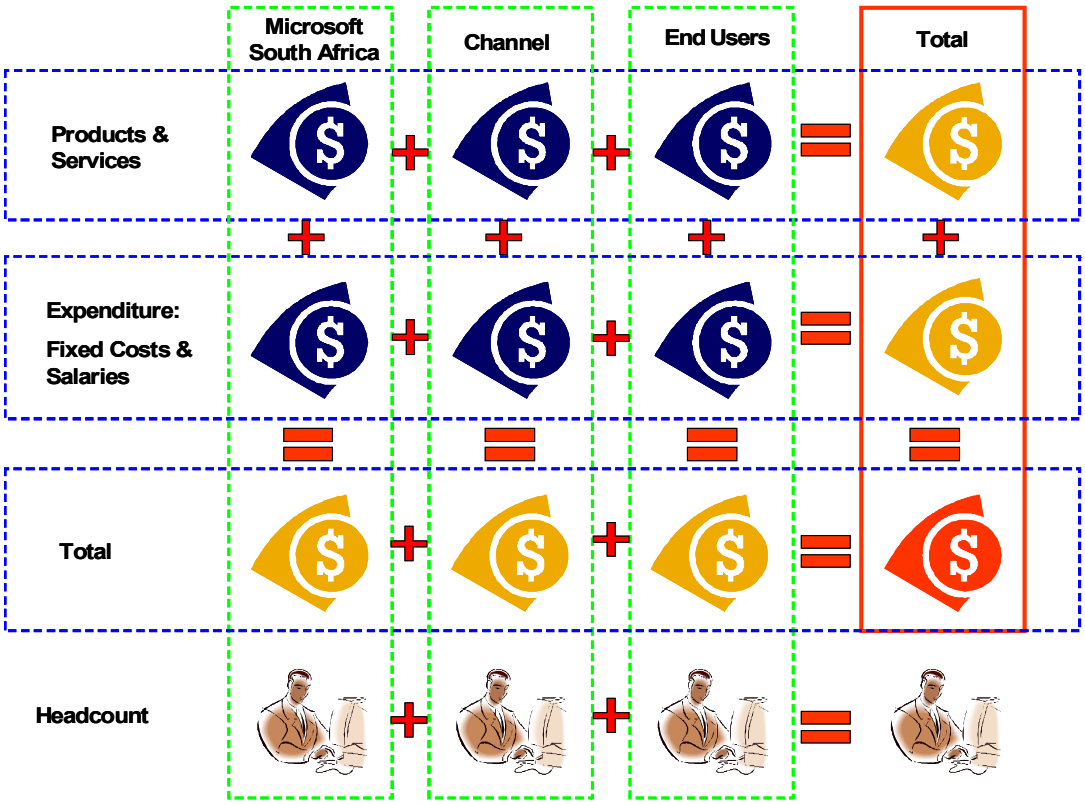
METHODOLOGY

The study, which was conducted in May and June of 2004, relied on both primary and secondary research to inform revenues generated by Microsoft South Africa and its channel partners. BMI-T estimated business expenditures, salary expenditures, taxes and household expenditures.

In addition, BMI-T quantifies the number of jobs created through the IT industry as a whole and through Microsoft South Africa and its channel partnerships.

FIGURE 1

Methodology



Source: BMI-T, 2004

Calculation method:

Products and services: software and services revenues generated by the channel (and Microsoft Consulting) translated into end-user expenditures.

Expenses (fixed and variable costs): Channel business expenditures such as utilities, property / rental, materials and supplies were calculated based on revenues generated in the channel less profits, taxes and salaries.

Microsoft-related end-user business expenditures such as utilities, property / rental, materials and supplies were calculated based on business expenditure estimates per average IT employee.

Corporate taxes: corporate tax estimates were derived through the channel survey.

Personal taxes: estimated based on 30% of salary bill.

Salaries: Channel and IS department salaries were estimated based on consultation with recruitment agencies and through channel and end user surveys.

Headcount: Headcount was estimated based on IDC data, ISETT SETA data, various salary surveys and BMI-T estimates.

Research sources

Primary research:

Microsoft revenue and channel information provided by Microsoft SA.

Interviews were conducted with various Microsoft vendors and end users in May and June of 2004.

Secondary research:

BMI-T used secondary data from the following sources:

International Data Corporation (IDC)

ISETT SETA

Statistics SA

The Personnel Concept

Quiglies Recruitment

Department of Labour

SA Reserve Bank

DEFINITIONS

IT spending and historical IT sending (formerly IT revenues)

Definition: spending by consumers, businesses, governments, or educational institutions on information technology, including hardware, software and services. Same definitions used in IDC Worldwide IT Spending Trends reports (The "Black Book").

Thus, "IT" excludes all telecommunications revenues for carriage and all equipment except that used for data switching. Since telecommunications (primarily voice) is still highly regulated and generally slow growth, IDC feels this is appropriate.

There are several technology categories not covered in the Black Book – including smart handheld devices (PDAs), consumer devices (videogames, Web TVs), and web site hosting. These areas still represent less than 10% of an aggregate spending, so IDC feels it is more efficient to stick with the Black Book categories than add cost to the project by adding additional small markets.

Methodology: conversion of historical Black Book dollar figures on IT spending into local currencies using exchange rates published in the Black Book

IT spending as a percent of GDP

Definition: the ratio of IT spending to GDP

Methodology: calculation using IDC Black Book figures to GDP as measured by the IMF. Nominal GDP will be used.

Tax revenues from IT spending

Definition: potential tax revenues to national governments related to the sale of IT hardware, software, or services

Methodology: determination of national tax schemes through desk research or interviews, and application to IT spending figures from above. Calculated figures will be checked against any existing government statistics. Since definitions vary so widely on the classification of IT equipment, software, or services, if the IDC figures differ from published government statistics, we will provide an explanation

IT employment figures

Definition: the number of people employed (full-time-equivalent) in either the IT sector or channel in a country, or in managing IT resources in an IT-using organisation (e.g., programmers, help desk, IT managers). The aggregation categories include: hardware vendor employment, software vendor employment, services vendor employment, distribution channel employment, and end-user IT professional employment. The definition *excludes* employment in occupations in IT-related industries, such as web graphics design, venture capital, trade magazine publishing, etc., and *excludes* individuals in business or government who's roles might be called "eBusiness management," such as marketing VP of online banking, manager of interactive media, etc.

Methodology: Headcounts by category will first be modeled based on estimated IT revenue per country and IT spending per country, then

cross checked with published information or census data available from government sources. In general, country sources will prevail over modeled counts, but in the case of radically different definitions, incomplete or unavailable data, IDC will default to the modeled data.

IDC has some excellent inputs for modeled employment figures, including published IT headcount figures in Europe, a model created in Asia Pacific, and IDC published data in the US from the late 1990s. These inputs allow us to create, from vendor revenues in a country, an estimate of employees (the hardware, software, and services headcounts) based on standard ratios of revenues per employee. For the channel and IT-using organisations, the input models look at employees per level of spending by technology type. The US information will provide a useful sanity check for country-specific figures.

All country profile headcount figures will be compared to any available government statistics, and reviewed by government officials. If there are differences and we use the IDC-created numbers, we will explain the differences.

IT companies

Definition: companies providing IT hardware, software, services, or distribution, excepting general retail outlets. These are companies that also have establishments – i.e., home offices or agents are excluded – and that are registered as companies in the country. The count includes companies that may be classified under government classification schemes as non-IT companies but that actually provide IT products. They will include companies that are OEMs – or companies that provide goods and services to other companies that in turn provide products to end users. While companies may be classified in multiple product categories, the estimation methodology should eliminate much double counting. Thus, for each country the number of companies will divided into four non-overlapping categories: hardware, software, services, distribution. It is expected that there will be many more software companies than hardware companies, and more distribution companies (Vars, resellers) than software companies.

Methodology: The methodology for estimating the number of IT companies in a country will again start from an estimated IT revenue number and an figure for revenues per company, for each of the four major categories – hardware, software, services, and channel. The total will be highly influenced by the number of small companies, particularly in software and distribution

Internal cross checks of the number of companies will include a listing of all companies tracked by IDC, any D&B or mailing lists we can obtain, and the Microsoft MSBP data base.

We will also check country government statistics for available information on numbers of countries. In general, country statistics should prevail for the final count unless definitions or data availability make it impossible.

Classifications

Hardware companies: companies that actually manufacture or assemble end-use IT products for export or consumption, or companies that manufacture parts or components sold to companies that make the

end-use products. These are the companies generating the spending on "hardware" as captured in IDC's Black Book. *The most common reason for IDC numbers to differ from official stats would be country classification of companies IDC considers distributors as manufacturing companies.. Another reason would be the classification of telecommunications manufacturers as IT manufacturers.*

Software companies: companies that create packaged software products for sale or license to multiple customers for export or domestic consumption. These are the companies generating the spending on "software" as captured in IDC's Black Book. *Most common reason for IDC numbers to differ from official stats would be country classification of companies that do custom software development as software companies while IDC classifies these as services firms.*

IT Services companies: companies that sell services related to the acquisition or deployment of information technology, including planning and consulting (for IT projects), installation and systems integration, outsourcing and facilities management, training and education, and contract programming. Excluded would be companies that perform non-IT-related Web-site functions, such as Web hosting firms, ISPs, web site design and interactive media firms. These are the companies generating the spending on "IT Services" as captured in IDC's Black Book. *Most common reason for IDC numbers to differ from official stats would be country classification of companies that do non-IT-related services (e.g., ISPS), as services or the classification of custom software developers as software companies.*

IT Channel companies: companies that distribute, sell, or resell IT products and services. Typically these companies take title to equipment from manufacturers and resell to end customers (or other companies in the distribution channel). While they may also perform services and training, and perhaps some assembly, if their primary value added is distribution they would classified as channel companies. These companies are the companies in IDC's market numbers that generate the difference between vendor revenues tracked by most IDC research programs and end-user spending as captured in IDC's Black Book. *Most common reason for IDC numbers to differ from official stats would be country classification of channel companies in other categories , such as IT services or hardware.*

Hardware employees: people, calculated as full-time equivalents, who work at hardware companies as described above. Most common reason for IDC numbers to differ from official stats would be different definitions of "hardware company."

Software employees: people, calculated as full-time equivalents, who work at packaged software companies as described above. *Most common reason for IDC numbers to differ from official stats would be different definitions of "software company."*

IT services employees: people, calculated as full-time equivalents, who work at IT services companies as described above. *Most common reason for IDC numbers to differ from official stats would be different definitions of "IT Services company."*

IT channel employees: people, calculated as full-time equivalents, who work at IT channel companies as described above. Many of these are very small one-or two-person firms. *Most common reason for IDC*

numbers to differ from official stats would be different definitions of "IT channels company."

IT Professionals: people, calculated as full-time equivalents, who perform functions related to acquiring, creating, installing, operating, supporting, and managing information technology. These include application developers, help desk technicians, IT managers, systems analysts, computer operators, etc. Typically these are skilled positions that require training, if not specialized education. *Most common reasons for IDC numbers to differ from official stats would be (1) inclusion of IT professionals at IT vendors in this total, (2) exclusion of full-time equivalents in this total, and (3) inclusion of contract programmers in this total (which IDC would include in IT Services.*