Computing Manufacturing
Industry Analysis and
Competitive Analysis
as Applied to "SlimPC"

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#### **INDUSTRY ANALYSIS**

For the personal computer manufacturing industry, the products included are desktops, PC, computer peripherals and storage devices. The global revenue for this industry is 586.9 billion with an expected annual growth rate of 4% to \$714billion in the next five years to 2019<sup>1</sup>. Profit margins are 2.8% of the industry revenue.

## PROFIT LEVEL INDUSTRY DETERMINANTS:

Macro economic variables such as global economic activity, changing consumer preferences, technological innovations, competition from substitutes, amount of average disposable household income and price drive demand for this industry.

#### BUSINESS STRATEGY AND VALUE PROPOSITION OF ULTRATHIN LAPTOP

For the PC market, the tablet device market and mobile industry pose a threat for substitutes. Tablet computers which are not considered part of the desktop and notebook industry have caused increased price competition within this industry. Demand elasticity does exist with respect to price for tablet computers. These substitutes pose a threat due to their value proposition of access to similar information with enhanced portability. The substitutes are small and convenient to carry versus the notebook or a desktop while still providing access to the internet. Hence an ultrathin windows based affordable laptop can offset this threat. The laptop would be a lower cost and higher performance relative to the tablet with slightly larger dimensions.

#### THREAT OF ENTRY

The computer hardware manufacturing industry is a high barrier to entry industry.

## **CAPITAL REQUIREMENTS**

High level of capital is required to be established in this industry due to the high setup fixed costs.

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<sup>&</sup>lt;sup>1</sup> Global computer hardware manufacturing industry

## **ECONOMIES OF SCALE:**

Economies of scale is a key factor for success in this industry. Since the industry is capital intensive, the industry profit margins will depend on efficiency and large scale operations. Small scale entrants will face high unit costs. Slim PC should enter has a small scale entrant with hardware manufacturing outsourced to low cost to reduce the cost of goods, however the research & development division would be within the headquarters hence a local facility.

## ABSOLUTE COST ADVANTAGES

The established competitors in the industry such as Dell, HP, Apple, Cisco, IBM have the advantage of access to low cost sources of raw materials. SlimPC could also access local semiconductor vendors within Asia for the raw materials.

#### PRODUCT DIFFERENTIATION

In my opinion to break through this high barrier to entry market SlimPC will need to invest substantially in creating awareness for its brand. The established competitors have sufficient brand recognition and customer loyalty. However the value to customers which is provided by SlimPC consists of an affordable low power, lower performance, ultrathin and lightweight portable windows based laptop.

#### ACCESS TO CHANNELS OF DISTRIBUTION

The focus for Slim PC is direct sales to business customers. So the distribution centers would be companies, however this would mean that Slim PC would be competing with established brands. However promotions and focused marketing strategies can and should be applied during the testing and prototyping phase of the product to achieve market share.

## **GOVERNMENT AND LEGAL BARRIERS:**

The industry is protected by intellectual property mostly in the form of patents. Innovating and developing a new product will be difficult. Hence a highly effective design team will be required tfor the new product development phases. Efforts will have to be made towards meeting compliance and safety testing.

#### RETALIATION:

There is always a threat of retaliation by the "Gorillas" in the market in the form of price reductions, aggressive marketing promotions and increased advertising. To avoid being taken down before the company even has a chance to launch our strategy should be to start small, finding the perfect single application point of entry per Jeffrey Moore's Crossing the chasm strategic business development model.

## EFFECTIVENESS OF BARRIERS OF ENTRY

One strategy to break into a high barrier for entry market is to bundle services with an established company e.g have Microsoft operating systems be bundled with our Slim PC products. For the peripheral products such printers and key boards the same strategy can be applied.

#### INDUSTRY RIVALRY CONCENTRATION:

Highly concentrated industry with a concentration ratio of 25.9% due to high barriers for entry. Major companies are HP (10.2%), Dell (7.4%), Apple (4.7%), Cisco (3.6%), IBM (3.3%) (IBIS report).

#### DIVERSITY OF COMPETITORS

Variation in prices and products exist in this industry since it is in the high technology industry. Product range, distribution capabilities and brand loyalty from the customer differentiate the competitors.

## PRODUCT DIFFERENTIATION:

Gross margins are low in this industry due to the high cost of goods which in turn means low profitability. In order to increase volume of sales more pressure is placed on the value proposition of the product in terms of processing speed, design, power capability, appearance, brand and price of the product. Achieve economies of scope and scale is essential to achieve high profit margins.

## **EXCESS CAPACITY AND EXIT TO BARRIERS:**

High exit to barriers exist since the resources in terms of labor and suppliers associate themselves with high switching costs.

#### **COST CONDITIONS:**

Fixed costs include high capital expenditures in terms of long term fixed assets such as property and plants. Since the cost structure is high there will be lower bound on the price at which unit can be sold. Which makes achieving economies of scope and scale very essential.

#### BARGAINING POWER OF SUPPLIERS

The established and large scale companies have sufficient supplier bargaining power. However establishing a manufacturing plant within Asia and utilizing the local vendor for the semiconductor parts can help "SlimPC" achieve economies of scale.

## BARGAINING POWER OF BUYERS

The buyers would be the distributors and business consumers. It will be essential for SlimPC to first create its cost structure, identify the breakeven point in terms of pricing. Understand what profit margins are realistic and from there it would be possible to create a pricing strategy for a specific product line. Once target profit margins are established, buyer negotiation conversations can begin. There is intense competition in the market which will put pressure on our pricing strategy.

#### COST STRUCTURE

Fixed costs:	Variable cost:
Office headquarter and facilities	Cost of raw materials per unit
Cost of manufacturing plant.	Cost of manufacturing labor per unit
Employ ee wages	Plant utilization rate per unit
Create a Marketing and advertisement budget	
Create sales and distribution cost budget	

## DECIDE ON THE FOLLOWING METRICS

- Target gross margin:
- Target operating margin
- Target profit margin
- Expected rate of return on assets?
- Net present valuation for the proposed marketing plan.
- Based on this information price per unit can be decided.

# MARKET RESEARCH ANALYSIS SUMMARY FROM MARKET PLACE SIMULATOR

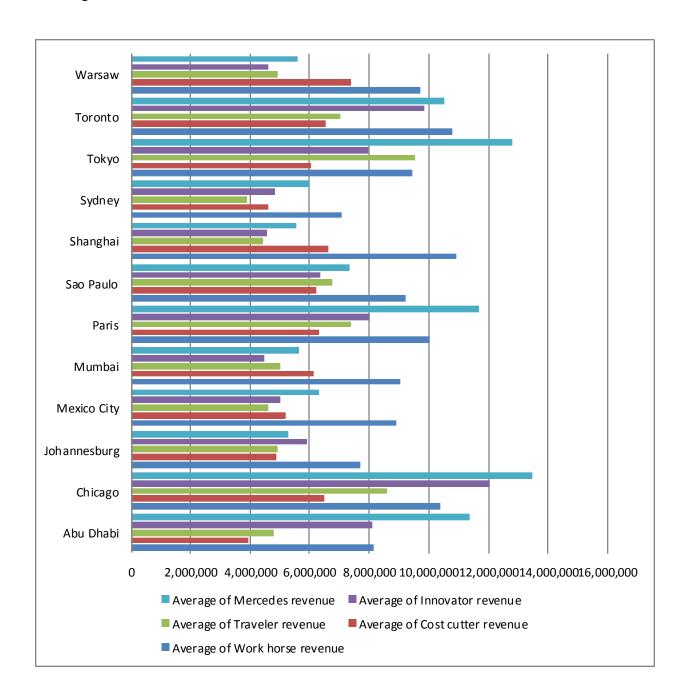
## **EXECUTIVE SUMMARY**

Assuming the workhorse is our primary customer since it has the highest revenue based on price a customer is willing to pay and demand followed by the innovator as the secondary customer.

Revenue projections are below:

Revenue by	Cost cutter	Work horse	Traveler	Innovator	Mercedes	Grand
region	revenue	revenue	revenue	revenue	revenue	total
Abu Dhabi	\$ 3,912,980	\$ 8,120,203	\$ 4,782,496	\$ 8,083,125	\$11,328,328	\$ 36,227,132
Chicago	\$ 6,461,547	\$10,360,076	\$ 8,587,183	\$12,015,600	\$13,453,506	\$ 50,877,912
Johannesburg	\$4,856,250	\$ 7,668,240	\$ 4,882,770	\$ 5,876,496	\$ 5,272,953	\$ 28,556,709
Mexico City	\$ 5,158,196	\$ 8,865,648	\$ 4,603,170	\$4,991,550	\$ 6,289,920	\$ 29,908,484
M umbai	\$6,093,210	\$ 9,032,940	\$ 4,973,892	\$ 4,448,356	\$ 5,611,930	\$ 30,160,328
Paris	\$6,306,872	\$ 9,994,215	\$ 7,378,380	\$7,974,088	\$ 11,659,344	\$ 43,312,899
Sao Paulo	\$ 6,198,025	\$ 9,211,104	\$ 6,745,489	\$6,313,617	\$ 7,318,740	\$ 35,786,975
Shanghai	\$6,597,318	\$ 10,916,895	\$ 4,420,975	\$4,547,912	\$ 5,536,216	\$ 32,019,316
Sydney	\$4,612,140	\$7,065,840	\$3,877,310	\$4,812,309	\$ 5,989,560	\$ 26,357,159
Tokyo	\$ 6,026,024	\$ 9,434,370	\$ 9,526,479	\$7,962,356	\$ 12,758,680	\$ 45,707,909
Toronto	\$ 6,504,762	\$ 10,764,094	\$7,000,032	\$ 9,842,304	\$ 10,474,673	\$ 44,585,865
Warsaw	\$7,370,927	\$ 9,687,623	\$4,913,932	\$ 4,592,388	\$ 5,597,334	\$ 32,162,204
Grand total	\$70,098,251	\$ 111,121,248	\$71,692,108	\$ 81,460,101	\$ 101,291,184	

Based on the analysis above and assuming work horse and innovator are the target customers, I chose Chicago and Shanghai for the first 2 sales offices. Chicago because based on the market research data it has the most prospects for high revenue across all customer segments and Shanghai because this will lower our operating and logistics cost, since the manufacturing plant would also be in Shanghai.



## DETAILS ON THE DECISION AND ANALYSIS

Based on the raw data from market place the following customer needs have a rating above 110 and are common amongst the customer segments. Protecting against loss of data is the most important

G	Cost				Work	Grand	Commonality	
Customer Needs And Wants	cutter	Innovator	Mercedes	Traveler	horse	Total	# of segments	
Fast service/support response time			130		123	127	2	
Ultra fast, can handle large tasks		112	140			126	2	
Savings in operator cost (training)	122				128	125	2	
Secure from viruses and attacks	125	123		122	127	124	3	
Can connect to office when on		118		130		124	3	
road		110		150		124		
Can see, work on multiple		132	130		110	124	4	
programs		132	150		110	124		
Fast processing and output		125	127		119	124	4	
The more storage space the		119	134	120	120	123	4	
better		11)	154	120	120	123		
Can handle large scale tech. tasks		124	122			123	3	
Want high performance over price		125	130	114		123	3	
Protected against loss of data	124	122	130	125	111	122	5	
Easy to tie into local area		126	132	112	111	120	4	
network		120	132	112	111	120		
Monitor is easy on eyes			115	124	121	120	3	
Fast network/internet		113	121	125		120	3	
Able to work on tiny graph. detail		111	128			120	2	
Service personnel trained often			124		113	119	2	
Quick response to commands		121	122		112	118	3	
Service available everywhere			117	114	124	118	3	
Easy to use	120	111		111	130	118	4	
Computers are lowest price	121			115	115	117	3	
Available in all local markets			115		117	116	2	
Recommended by others	112	114	123	115		116	4	
Want more productive operators	119		110		117	115	3	
Easy to set up and use new PC	117			111		114	2	
Established brand name				112	116	114	2	
Local technical service			116		111	114	2	
Competent sales personnel	115				110	113	2	
Computer has distinct sty le/look		112	110		113	112	3	

customer need across all customer segments followed by can work on multiple programs, fast processing and output, more storage space, easy to tie into local area networks, easy to use and recommended by others.

Shared by the innovator and workhorse the following are the common needs with a rating higher than 110 are as follows secure from viruses and attacks; Can see, work on multiple programs; Fast processing and output. The more storage space the better; Protected against loss of data; Easy to tie into local area network; Quick response to commands; Easy to use; Computers are lowest price; Want more productive operators; Competent sales personnel

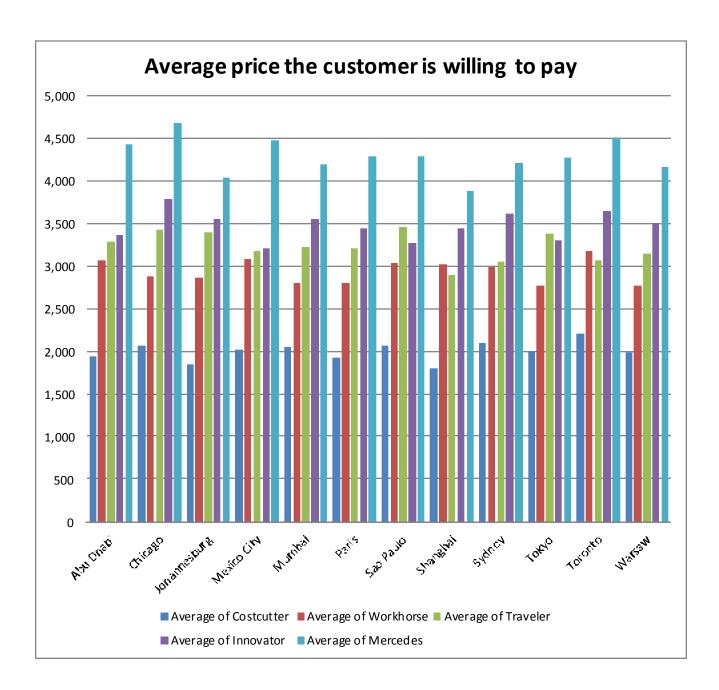
## SEGMENTS BY APPLICATION

Communications with other computers; Bookkeeping, budgeting; Data management; Presentations are the common segments by application for both workhorse and innovator.

Segments by application	Cost cutter	Innovator	Mercedes	Workhorse	Traveler	Grand total
Communications with other computers	114	122	122	123	121	602
Word processing	126	97	106	129	122	580
Data management	110	113	112	120	112	567
Presentations	103	111	91	107	133	545
Business graphics	97	93	85	107	119	501
Engineering/design	71	123	99	83	81	457
Bookkeeping, budgeting	125	102	89	122	108	546
Manufacturing process control	71	105	131	92	68	467

The application is segmented above. Communications with other computer is rated highly.

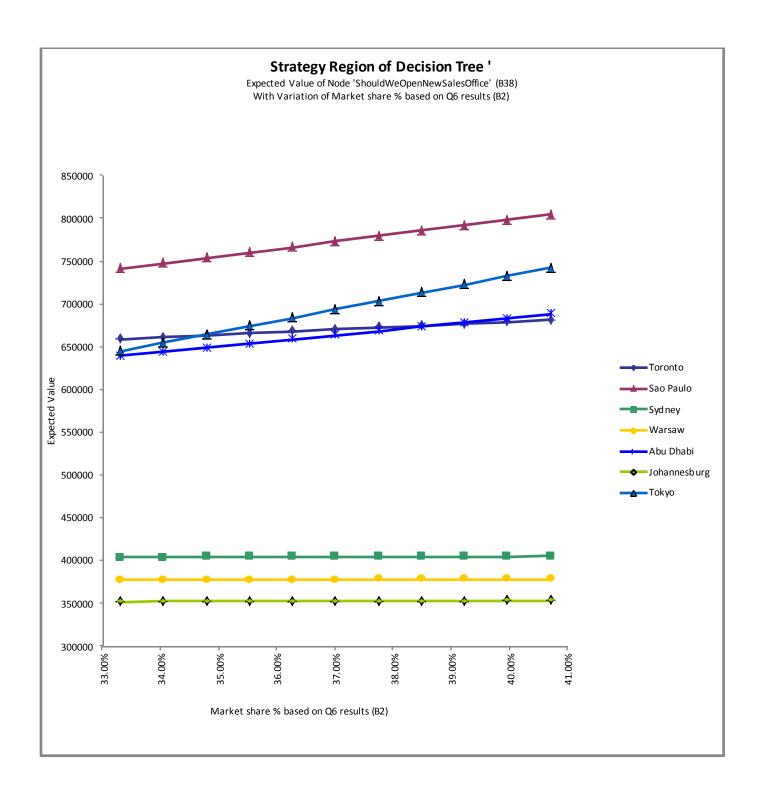
From the data below it appears as **if Chicago on an average has a higher price** that a customer is willing to pay for a computer. Mercedes being the higher paying customer.



## MARKET SIZE

It appears as if the cost cutter has the largest potential demand across all regions. Shanghai being the second highest and Warsaw being the highest. On an average Chicago has the highest demand across all regions.

12-month potential	Costcutter	Innovator	Mercedes	Workhorse	Traveler	Grand	
demand						total	
Chicago	3,111	3,162	2,871	3,596	2,497	\$15,237	
Tokyo	3,004	2,407	2,981	3,390	2,811	\$14,593	
Paris	3,256	2,312	2,714	3,563	2,290	\$14,135	
Toronto	2,942	2,698	2,321	3,386	2,272	\$13,619	
Sao Paulo	2,987	1,929	1,706	3,024	1,949	\$11,595	
Shanghai	3,653	1,319	1,421	3,597	1,525	\$11,515	
Warsaw	3,691	1,308	1,341	3,481	1,558	\$11,379	
Abu Dhabi	2,017	2,395	2,552	2,639	1,451	\$11,054	
M umbai	2,955	1,252	1,333	3,210	1,538	\$10,288	
Mexico City	2,546	1,555	1,404	2,871	1,443	\$9,819	
Johannesburg	2,625	1,647	1,301	2,670	1,434	\$9,677	
Sydney	2,190	1,329	1,420	2,360	1,270	\$8,569	
Grand total	34,977	23,313	23,365	37,787	22,038		



	Change	ange		Change	Change	Change	Change		Change		Change		Change		Change		Change		Change
Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)				
33.30%	-10.00%	659594.	-14.72%	74178	-4.10%	40456	-47.70%	37769	-51.17%	63937	-17.34%	35252	-54.42%	645504.	-16.55%				
		8628		3.7286		3.9587		6.8881		8.5765		5.1046		2995					
34.04%	-8.00%	661813.	-14.44%	74812	-3.28%	40466	-47.68%	37779	-51.16%	64430	-16.70%	35261	-54.41%	655226.	-15.29%				
		6309		2.8597		5.1456		1.5587		3.4282		5.2543		8006					
34.78%	-6.00%	664032.	-14.15%	75446	-2.46%	40476	-47.67%	37788	-51.14%	64922	-16.06%	35270	-54.40%	664949.	-14.03%				
		399		1.9909		6.3324		6.2294		8.2799		5.4039		3017					
35.52%	-4.00%	666251.	-13.86%	76080	-1.64%	40486	-47.66%	37798	-51.13%	65415	-15.43%	35279	-54.39%	674671.	-12.77%				
		1672		1.1221		7.5193		0.9001		3.1316		5.5535		8028					
36.26%	-2.00%	668469.	-13.58%	76714	-0.82%	40496	-47.64%	37807	-51.12%	65907	-14.79%	35288	-54.38%	684394.	-11.52%				
		9353		0.2533		8.7061		5.5708		7.9833		5.7031		3039					
37.00%	0.00%	670688.	-13.29%	77347	0.00%	40506	-47.63%	37817	-51.11%	66400	-14.15%	35297	-54.37%	694116.	-10.26%				
		7034		9.3845		9.893		0.2415		2.835		5.8528		805					
37.74%	2.00%	672907.	-13.00%	77981	0.82%	40517	-47.62%	37826	-51.10%	66892	-13.52%	35306	-54.35%	703839.	-9.00%				
		4716		8.5157		1.0799		4.9121		7.6867		6.0024		3061					
38.48%	4.00%	675126.	-12.72%	78615	1.64%	40527	-47.60%	37835	-51.08%	67385	-12.88%	35315	-54.34%	713561.	-7.75%				
		2397		7.6469		2.2667		9.5828		2.5384		6.152		8072					
39.22%	6.00%	677345.	-12.43%	79249	2.46%	40537	-47.59%	37845	-51.07%	67877	-12.24%	35324	-54.33%	723284.	-6.49%				
		0078		6.7781		3.4536		4.2535		7.3901		6.3017		3083					
39.96%	8.00%	679563.	-12.14%	79883	3.28%	40547	-47.58%	37854	-51.06%	68370	-11.61%	35333	-54.32%	733006.	-5.23%				
		776		5.9093		4.6404		8.9242		2.2418		6.4513		8094					
40.70%	10.00%	681782.	-11.86%	80517	4.10%	40557	-47.56%	37864	-51.05%	68862	-10.97%	35342	-54.31%	742729.	-3.98%				
		5441		5.0405		5.8273		3.5948		7.0935		6.6009		3105					