Management's Discussion and Analysis

Year 2023

Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue decreased -4% year on year, at THB 26,152 million in year 2023 from THB 27,167 million in year 2022. Sales Revenue in USD terms decreased by -3% to USD 751m in 2023 from USD 775m in 2022. Earnings from Operations decreased -26% to THB 1,787m in 2023 from THB 2,422m in 2022.

Net Profit decreased by -16% to THB 1,761m in 2023 from THB 2,102m in 2022 due to a downturn in the semiconductor cycle in 2023 and inventory adjustment at IC Korea.

Past Performance Analysis

Revenue Analysis

Group sales decreased -4% in 2023 to THB 26,152m from 2022 at THB 27,167m driven by a downturn in the semiconductor cycle. USD sales were -3% lower in 2023 at USD751m down from USD775m in 2022. The average THB/USD exchange rate strengthened 1% to THB/USD 34.8 in 2023 from THB/USD 35.1 in 2022.

The Microelectronics divisions' sales revenue in USD increased 5% [5% in THB terms] in 2023 over 2022. The microelectronics operation in Lamphun sales increased 12% [11% in THB terms] and Jiaxing decreased by -13% [-15%] in 2023.

In 2023 IC assembly sales overall decreased by -20% [-21% in THB terms]. Specifically, IC AYT sales decreased -18% [-19%] and IC JXG USD sales decreased by -20% [-21% in THB terms].

Hana Technologies Inc. 'HTI', sales increased 12% [11% THB] for the year.

The annual sales split was:

	<u>2023</u>	<u>2022</u>	<u>2021</u>
PCBA (Thailand)	47%	41%	41%
PCBA (China)	12%	14%	14%
PCBA (Cambodia)	2%	1%	1%
IC (Thailand)	28%	33%	34%
IC (China)	3%	5%	5%
HTI (USA)	6%	5%	5%
IC (Korea)	2%	1%	0%
	100%	100%	100%

Gross Profit / Cost of Sales Analysis and Sales and Administration Analysis

Gross Profit decreased by THB -681m with the gross margin decreasing -2% point to 11% in 2023 from 13% in 2022 due to the downturn in the semiconductor cycle [-1%] and IC Korea inventory and development expenses adjustment [-1%] USD 7.7m [THB 262m].

Operating Profit Analysis

Earnings from Operations margin decreased to 7% in 2023 from 9% in 2022. SGA including R&D expenses were -2.0% lower in 2023 than 2022.

Payout Analysis

In Q423 THB 442m dividend of THB 0.50 per share was paid as an interim dividend from the profits of 2023.

In Q223 THB 402m final dividend of THB 0.50 per share was paid during the quarter from the profits of 2022.

In Q422 THB 402m dividend of THB 0.50 per share was paid as an interim dividend from the profits of 2022.

In Q222 THB 805m final dividend of THB 1.00 per share was paid during the quarter from the profits of 2021.

In Q421 THB 805m dividend of THB 1.00 per share was paid as an interim dividend from the profits of 2021.

Financial Status

Net Cash reserves and financial investments were THB 7.8 billion at the 31st December 2023 up from THB 3.6 billion at the 31st December 2022.

Asset Quality

Accounts Receivable

Most of customers are well known and have good reputation in the IC, and electronics industry. Provision is made of amounts outstanding over 90 days and amounts which the management believe may be doubtful. Accounts receivable were 71 days in 2023, 62 days in 2022 and 62 days in 2021.

Trade Receivables	'000	<u>2023</u>	<u>2022</u>	<u>2021</u>
Less than 3 months		4,846,118	4,754,011	4,252,339
3 - 6 months		45,888	31,736	52,465
6 - 12 months		20,445	97	5,720
More than 12 months		8,950	3,418	5,408
Total accounts receivable - other cor	npan	4,921,401	4,789,262	4,315,932
Less : Allowance for doubtful accoun	its	(15,964)	(13,289)	(11,114)
		4,905,437	4,775,973	4,304,818

Inventory

In general, Hana's production is based on clients' order, consequently, the majority of inventory are raw materials, expendable tools and work in process with little finished goods pending for customer delivery. The group companies normally write-off out-of-date inventory, and make provision for aged inventory and depletion in the value of fixed assets, if material, each quarter. Inventory days were 145 days in 2023, 101 days in 2022 and 101 days in 2021.

Accounts Payable

Credit terms with suppliers are mostly open account with credit terms varying from cash in advance to 90 days. The credit term has been determined in accordance with the principles of fair dealing between the Company and suppliers. Accounts payable were 59 days in 2023, 52 days in 2022 and 52 days in 2021.

Liquidity

The group has THB 7.8 billion in cash and financial investments. Liquidity ratios are high at over 3 times current liabilities.

Operating Cashflow (EBITDA) was THB 3,490m in 2023, -14% lower than THB 4,052m in 2022 and THB 3,520 m in 2021.

Cash and financial investments in 2023 increased to THB 7.8 billion, due to

EBITDA 3.5 billion less final dividend THB 0.4b 2022 paid in Q223, interim dividend Q423 THB 0.4b, net capital expenditure THB 2.7b, share capital increase THB 4.6 billion, other items THB -0.4b.

Cash and financial investments in 2022 decreased to THB 3.6 billion, due to

EBITDA 4.1 billion less final dividend THB 0.8b 2021 paid in Q222, interim dividend Q422 THB 0.4b, net capital expenditure THB 2.9b, other items THB -2.5b.

Cash and financial investments in 2021 decreased to THB 6.0 billion, due to

EBITDA 3.5 billion less final dividend THB 0.8b 2020 paid in Q221, interim dividend Q421 THB 0.6b, net capital expenditure THB 3.9b, other items THB -1.9b.

Capital Expenditure

Capital Expenditure was THB 2,689m in 2023, THB 2,876m in 2022, and THB 3,895m in 2021. Capital Expenditure in 2023 was mainly for IC Korea plant due to investment in expansion of Silicon Carbide devices and building purchase for Hana Technologies expansion, whereas in 2022 and 2021 capital expenditure was across the IC divisions.

Generally, capital expenditure for production equipment will follow the increase in sales, particularly in the IC division. However, there is a 6 to 12 month time lag due to the ordering lead time. Plant expansion will depend on the current building utilisation and lead time to construct new plant or expand in an existing plant.

Source of Financial Capital

As the group as no interest bearing debt and operating working capital is positive the groups funding is from the shareholders equity.

Major Factors which could have an Impact on the Company's Performance

The company business is that of an electronics manufacturing service company. The company manufactures products on behalf of its customers for shipment to them or their customers. Therefore, the company's performance is mostly affected by its ability to win and retain business from the existing and new customers. In turn, customer demand is affected by world economic growth and the customer's sales growth.

The groups sales revenue are in foreign currency (primarily USD) and USD currency costs are approximately 60% percent of sales revenues. The Group operating profit sensitivity to change in the Thai Baht/USD and Chinese CNY/USD exchange rates is currently about Baht 200m per quarter for every 10% change in the average Baht/USD and CNY/USD rates (i.e. (1- 0.60) x Sales Revenue x 10%). Out of the groups foreign exchange exposure, as of the 30th September 2023 all foreign exchange contracts to hedge the Baht against the USD have been unwound so there is zero net outstanding THB/USD contracts. This action was taken due to weakening THB/USD and high interest rate differential between USD and THB. At the end of Q223 USD 120m was hedged (sell USD buy THB).

Whilst the book value of the offshore companies are represented in foreign currency, the effect of the change in the exchange rate is shown by the movement of the foreign currency 'Translation Adjustment' in the shareholders funds section of the balance sheet. There is no cash affect concerning its movement.

For Hana being an export group of companies the currency movements cause volatility in earnings due to effects on the operating margins and also inventory valuations (which the management report each quarter when there is a material effect on the profits) and margins.

Other factors which may affect operating performance of the company are (but not limited to): Customer retention, winning new customers, product price erosion, customers products success in their respective markets and lifecycle of such products, consistently manufacturing products to agreed specifications and delivery schedules with customers, recall, product liability risks in the event of product failures, suppliers price and consistent supply of raw materials to agreed specifications, supplier financial solvency, fluctuation in foreign exchange rates for each of our operations compared to both product sales currency which is primarily USD, materials purchasing currency which is primarily USD and the operating currency in each country which we operate, wages and salaries increases, availability and turnover of direct labour and skilled staff, credit risks, market, liquidity and funding, insurance, operational, regulatory compliance, strategic, reputation, legal and regulatory environment, competitive and systemic risks. Our success in executing and completing mergers and acquisitions and subsequent operational risks. Our success in developing and marketing new products and factory processes. Success in protecting intellectual property developed.

Macro-economic stability of the countries in which we, our customers and suppliers operate. Global financial stability which may affect interest rates and access of funding of the company, its customers and suppliers.

Foreign Exchange Rates

The THB/USD currency movements reflected the increase in relative interest rates in the USA in 2022 & 2023. The average rate for 2023 was THB/USD 34.80 which was 1% stronger than 2022 was THB/USD 35.07 which was 10% weaker than the 2021 at THB/USD 31.98.

Exceptional Items

The company issued 80.5m new shares in 2023 at THB 57 baht per share raising THB 4.6b. There were no Exceptional Items in 2022. In Q4 2021 we wrote down the balance invested in Credit Suisse (Lux) Supply Chain Finance Fund of THB 404m (USD 12.7m) to zero. The original invested amount totalled USD 35m. Whilst there may be some further recoveries from the fund we believe it is prudent to provide for the balance of the fund.

Subsequent Event

None

CONSOLIDATED STATEMENT OF EARNINGS

'000 Baht	Year 2023		Year 2022		Year 2021		2023-2022	% 2023-2022	
REVENUES				_		•			
Sales	26,152,116		27,167,163		23,780,179		(1,015,047)	-4%	-
consisting of:									-
PCBA (Lamphun, Thailand)	12,312,130	47%	11,121,072	42%	10,195,977	38%	1,191,058	11%	-
PCBA (Jiaxing, China)	3,250,546	12%	3,806,134	14%	3,120,701	17%	(555,587)	-15%	-
PCBA (Cambodia)	395,269	2%	199,088	1%	108,126	0%	196,181	99%	-
IC (Ayutthaya, Thailand)	7,317,612	28%	9,038,404	33%	8,182,304	34%	(1,720,792)	-19%	-
IC (Jiaxing, China)	914,835	3%	1,318,488	5%	1,161,537	6%	(403,653)	-31%	-
HTI (Ohio, USA)	1,482,207	6%	1,339,247	5%	961,680	5%	142,960	11%	-
IC (Korea)	479,518	2%	344,730	1%	49,854		134,787	39%	-
	26,152,116	100%	27,167,163	101%	23,780,179	100%	(1,015,047)	-4%	(0)
Other Income	438,666		455,839		354,755		(17,173)	-4%	-
TOTAL OPERATING REVENUES	26,590,782		27,623,002	_	24,134,935	•	(1,032,219)	-4%	(0)
EXPENSES									-
Cost of Sales	23,172,094	89%	23,506,161	87%	20,492,977	85%	(334,067)	-1%	-
Selling & Admin. Expenses	1,499,628	6%	1,563,031	6%	1,329,088	6%	(63,403)	-4%	-
R&D Expenses	131,561	1%	131,561	0%	94,223	0%	-	0%	-
Other Expenses	-		-		-				-
TOTAL EXPENSES	24,803,283	95%	25,200,754	93%	21,916,287	91%	(397,470)	-2%	(0)
OPERATING EARNINGS	1,787,499	7%	2,422,248	9%	2,218,648	10%	(634,749)	-26%	(0)
Dividend Income	21,539		5,781		2,066		15,758		_
Interest	96,965		93,696		113,953		3,270	3%	-
Finance Expenses	(51,834)		(22,695)		(7,492)		(29,139)	128%	-
EARNINGS before Income Tax	1,854,170	7%	2,499,030	9%	2,327,175	11%	(644,860)	-26%	(0)
Corporate Income Tax	(85,468)	5%	(107,380)	4%	(52,708)	5%	21,912	-20%	-
Earnings before Exch. & Exceptional Items	1,768,702	7%	2,391,650	9%	2,274,466	11%	(622,948)	-26%	(0)
Revaluation of Financial Instruments	-		, , , <u>-</u>		526		-		. ,
Exchange Gain (Loss)	(8,135)		(289,579)		(308,655)		281,444		_
Exceptional Items	-		-		(421,023)				-
NET EARNINGS for the Period	1,760,567	7%	2,102,071	8%	1,545,314	13%	(341,504)	-16%	(0)

CONSOLIDATED Balance Sheet

CONSOLIDATED Balance Sne	ei Year	Year	Year		%
'000 Baht	2023	2022	2021	2023-2022	2023-2022
-					
ASSETS					
CURRENT ASSETS					
Cash in Hand & at Banks	6,954,416	2,374,708	3,304,173	4,579,709	193%
Financial Investments	1,938,097	1,259,383	2,694,695	678,714	54%
Accounts Receivable - trade	5,178,141	4,981,041	4,552,783	197,100	4%
Inventories	8,969,347	9,456,928	6,856,572	(487,581)	-5%
Other Current Assets	119,368	171,171	161,613	(51,803)	-30%
TOTAL CURRENT ASSETS	23,159,370	18,243,231	17,569,835	4,916,139	27%
Long Term Financial Investments	-	152	154	(152)	-100%
INVESTMENTS IN ASSOCIATED COMPANY	-	-	-	-	
FIXED ASSETS (net)	11,773,778	10,925,757	9,734,970	848,021	8%
OTHER ASSETS	372,809	534,268	548,008	(161,460)	
TOTAL ASSETS	35,305,957	29,703,408	27,852,967	5,602,549	19%
LIABILITIES					
CURRENT LIABILITIES					
Bank Overdrafts & Loans	1,076,408	-	-	1,076,408	
Accounts & Notes Payable	3,390,546	4,160,841	3,505,876	(770,295)	-19%
Short Term Provisions	-	345,624	334,199	(345,624)	-100%
Corporate Income Tax Payable	50,816	68,761	20,528	(17,944)	-26%
Accrued Expenses	342,233	-		342,233	
Other Current Liabilities	150,015	452,111	168,375	(302,096)	-67%
TOTAL CURRENT LIABILITIES	5,034,054	5,027,337	4,028,978	6,717	0%
LONG TERM LIABILITIES					
Long Term Loans				-	
Other Long Term Liabilities	1,125,182	813,929	765,895	311,253	
TOTAL LIABILITIES	6,159,236	5,841,266	4,794,873	317,971	5%
SHAREHOLDERS EQUITY					
Share Capital	885,367	804,879	804,879	80,488	
Unrealised gain(loss) on change in investments	-	-	-		
Share Premium	6,230,536	1,723,219	1,723,219	4,507,317	262%
Retained Earnings	-	-	-		
Appropriated Statutory Reserve	541,627	536,313	514,958	5,314	1%
Unappropriated & Treasury Share Reserve	21,130,039	20,234,096	19,343,953	895,943	4%
Translation adj. & Investment revaluation Treasury shares	359,152	563,635	671,085	(204,483)	-36%
Excess Cost over Net Book Value of Subsidiary Investments	-	-	-	-	
TOTAL SHAREHOLDERS EQUITY	29,146,720	23,862,142	23,058,093	5,284,578	22%
TOTAL LIABILITIES & SHAREHOLDERS EQUITY	35,305,957	29,703,408	27,852,967	5,602,549	19%

CONSOLIDATED Summary Statement of Cashflows

MOOD I	Year 2023	Year 2022	Year 2021	2023-2022
'000 Baht	2023	2022	2021	2023-2022
Cashflow from Operating Activities				
Net Earnings before Tax	1,846,035	2,209,451	1,598,022	(363,416)
	, ,	, ,	, ,	, ,
Adjustments to reconcile net earnings to net cash provided by operating activities				
Non Cash items				
Depreciation & Amortisation	1,702,296	1,629,827	1,301,418	72,469
Unrealised (gain) Loss on exchange	18,139	93,392	81,982	(75,253)
Change in other provisions	544,080	65,060	492,210	479,020
	2,264,515	1,788,279	1,875,610	476,235
Working Capital (increase) decrease				
Trade accounts receivable	(195,782)	(536,317)	(1,092,088)	340,536
Inventories	53,281	(2,666,004)	(2,402,126)	2,719,285
Trade accounts payable	(670,730)	598,177	1,065,268	(1,268,907)
Other	(47,028)	(51,871)	(137,189)	4,843
	(860,259)	(2,656,015)	(2,566,135)	1,795,756
Net Cashflow from Operating Activities	3,250,291	1,341,715	907,497	1,908,576
Cashflow from Investing Activities				
(Increase) decrease in short term investment	(619,635)	1,306,046	1,187,610	(1,925,681)
Increase in property, plant and equipment	(2,653,935)	(2,491,394)	(4,129,321)	(162,541)
Proceeds from sale of fixed assets	34,975	20,852	32,693	14,122
Increase (decrease) in translation adjustment	(504,998)	116,110	1,355,725	(621,108)
Decrease in short term loans to related parties				-
Other	<u>-</u>	(4,463)	(30,368)	4,463
	(3,743,593)	(1,052,848)	(1,583,661)	(2,690,745)
Cashflow from Financing Activities				
Proceeds from Capital Increase	4,587,805	-		4,587,805
Cash received from increase in share capital & overdraft	1,330,329	(11,014)	(11,385)	1,341,343
Dividend paid	(845,123)	(1,207,318)	(1,408,538)	362,196
Net cash (used in) from financing activties	5,073,011	(1,218,332)	(1,419,923)	6,291,343
Net Cash, equivalents and short term liquid investments	4,579,709	(929,465)	(2,096,087)	5,509,173
increase (decrease) Cash and Equivalents at the beginning of the period	2,374,708	3,304,173	5,400,261	(929,465)
Cash and Equivalents at the end of the period	6,954,417	2,374,708	3,304,173	4,579,708

Financial Ratios

	Year	Year	Year	
'000 Baht	2023	2022	2021	2023-2022
Profitability Ratios				
Gross Profit Margin (%)	11%	14%	14%	-3%
Operating Profit Margin (%)	7%	9%	9%	-2%
Net Profit before Exceptional Margin (%)	7%	9%	10%	-2%
Net Profit after Exceptional Margin (%)	7%	6%	6%	1%
EBITDA margin (%)	13%	15%	15%	-2%
Return On Equity (%) pa	6%	7%	7%	-1%
Return On Assets (%) pa	5%	6%	6%	-1%
Return On Operating Capital Employed (%) pa	8%	12%	12%	-4%
Efficiency Ratios				
Working Capital turnover	2	4	4	(2)
Account Receivable days	71	62	62	9
Inventory days	145	101	101	44
Accounts Payable days	59	52	52	7
Liquidity Ratios				
Current Ratio	4.6	4.4	4.4	0.2
Quick Ratio	2.8	2.6	2.6	0.2
Financial Capital Ratios				
Debt / Equity	0.2	0.2	0.2	
Net Debt to Equity	-0.1	-0.1	-0.1	
Interest Coverage	n/a	n/a	n/a	