



LEVEL 7 ASSESSMENT SPECIFICATION

Student name:	TSUI Ao Cheung	Student ID number:	1921900
Programme:	MBA		
Module:	Finance for Business Managers		
Module code:	HKBM7008	Contribution to Overall Module Assessment (%):	100%
Lecturer:	Dr Katherine Mo	Internal Verifier:	Dr Arion Wong
Assignment Title:	Assignment 1	Word count (or equivalent):	5,000 words +/- 10%
Submission deadline:	17 August 2020	Return date of provisional marks & written feedback:	Within 10 days after submission
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 50%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Executive Summary

Chow Tai Fook Jewellery Group Limited “CTFJ”, a well-known jewellery retailer, has a proven robust revenue with a strong balance sheet since listed on HKEx in 2011. The company also keep on developing its business in Hong Kong, Macau, and China, furthermore, it continuously establishing new product lines and new point of sales to cater to the different market sectors.

CTFJ is the market leader based on our findings from this financial assessment. In this report, we used a peer comparison with another two well-known brands in Hong Kong - Luk Fook “LF” and Tse Sui Luen “TSL”. By studying these three companies’ annual reports between 2017 and 2019, we confirmed that CTFJ is financially healthy and performing far beyond LF and TSL in most of the financial matrix.

In chapter 3, we noticed that the stakeholders at CTFJ has a well-organized corporate governance that compliance with HKEx regulations; the overall structure will help the company to overcome different challenges and risks ahead, as well as to its shareholders for transparency, fair and accountable.

CTFJ has an on-going development strategy and sustained competitive advantage, in chapter 4, we tapped into one of the company’s investment plan that announced recently, with a recommendation to invest 5% of its China revenue in 2019 for a 10-year investment proposal. Under the section of investment appraisal, we used four different matrices to evaluate this project, and it is proven that this is a valuable investment supported by all the positive evaluations. We suggested CTFJ to raise funds for this project as well as working capital financing in chapter 5.

In the last chapter, we reviewed the possible challenges and risks that may impact CTFJ, followed by strategies and project schedules to pursue.

Table of Contents

Executive Summary.....	1
Table of Contents	2
List of Figures.....	3
List of Tables.....	3
1. Introduction.....	4
1.1 Company Background.....	4
1.2 Organization Structure	5
1.3 IPO History and Market Capitalization:	5
1.4 Operating Business Overview	6
1.5 Current & Historical Performance	6
1.6 Market position against competitors	7
1.7 Major development and challenges ahead	9
2. Financial Analysis	10
2.1 Profitability Analysis and Growth Capacity	10
2.2 Financial Positions (Liquidity and Solvency Analysis)	12
2.2.1 Current Ratio.....	13
2.2.2 Gearing Ratio.....	14
2.2.3 Cash Cycle.....	15
2.2.4 Leverage Ratio.....	16
2.2.5 Share Performance	17
2.2.6 The Du Pont Identity	18
2.2.7 Bankruptcy Index	23
3. Corporate Governance – Internal control and risk management.....	24
3.1 Corporate Governance System	24
3.2 Transparency and board diversity within a traditional family business	26
3.3 Compliance with Corporate Governance Code.....	27
3.4 Emerging Risks and Challenges	27
4. Investment Project Appraisal	28
4.1 Cost breakdown of the investment project.....	29
4.2 Profit and Cash Flow	29
4.2.1 Profit in 10 years	30
4.2.2 Cash Flow in 10 years.....	31
4.3 Four Types of Investment Appraisal	31
4.3.1 ARR	32
4.3.2 NPV	32
4.3.3 PBP.....	33
4.3.4 IRR.....	33
4.4 Assessment of the investment project	34
5. Fund-raising and working capital management	35
5.1 Financing options	35
5.2 Financing alternatives analysis.....	36
5.3 Financing recommendation	37
6. Conclusion and recommendation	38
6.1 Suggestions to CTFJ.....	38
Appendix 1: Financing calculation for long-term project	42
Appendix 2: Working Capital Financing.....	42
Appendix 3: Projected Cashflows.....	43
Appendix 4: Projected Balance Sheet.....	43
Appendix 5: Academic Reference	44
Appendix 6: Bibliography	45

List of Figures

Figure 1-1 Revenue by Products in FYE31Mar-19	4
Figure 1-2 Organization Structure	5
Figure 1-3 Revenue and Segment Profit by Regions	6
Figure 1-4 Revenue Contribution by Region	7
Figure 1-5 Inbound Arrivals to Hong Kong between 2017 and 2019	9
Figure 2-1 Self-sustainable growth ratio	11
Figure 2-2 Current Ratio between FYE17-19	13
Figure 2-3 Gearing ratio between 2017 and 2019	14
Figure 2-4 Cash Cycle between 2017 and 2019	15
Figure 2-5 Leverage Ratio between FYE17-19	16
Figure 2-6 Dividend per share (HK\$)	17
Figure 2-7 Du Pont Identity for CTFJ as of FYE31Mar-19	18
Figure 2-8 Equity Multiplier	19
Figure 2-9 Total Asset Turnover	20
Figure 2-10 Net Profit Margin	21
Figure 2-11 Return on Equity	22
Figure 2-12 CTFJ's Stock Value between FYEMar-17 and Mar-19	23
Figure 3-1 Corporate Governance System	24
Figure 4-1 CTFJ's average expense in development between 2017 and 2019	28
Figure 4-2 NPV breakeven point	30
Figure 4-3 NPV Profile	32
Figure 4-4 Payback Period	33
Figure 5-1 HIBOR	37
Figure 6-1 Gantt Project Chart	38
Figure 6-2 CTFJ's retail outlets in Central Hong Kong	39

List of Tables

Table 1-1 Market cap and other relevant data on share performance	5
Table 1-2 CTFJ's historical performance between 2011 and 2019	6
Table 1-3 Revenue by Region	8
Table 1-4 Non-Current Assets Breakdown by Region	8
Table 2-1 Profitability Analysis	10
Table 2-2 Liquidity and Solvency Analysis	12
Table 2-3 Share Performance	17
Table 2-4 Data used for Du Pont Model	18
Table 2-5 Data for Z-Score analysis	23
Table 2-6 The Z-Score Analysis	23
Table 3-1 Executive directors from the Cheng family	26
Table 4-1 Cost breakdown of the investment project	29
Table 4-2 Average financial data between 2017 and 2019 for projection	29
Table 4-3 Depreciation rate and other data for the investment project	29
Table 4-4 Profit in 10 years	30
Table 4-5 Cash Flow in 10 years	31
Table 4-6 Data for Investment Appraisals	31
Table 5-1 Financing for long-term project	35
Table 5-2 Projected gearing and leverage ratio in 10 years	36
Table 5-3 Interest rate	37
Table 5-4 Long-term financing 80% of project cost	37
Table 6-1 CTFJ's General and distribution costs	40
Table 6-2 CTFJ's dividend payouts	41

1. Introduction

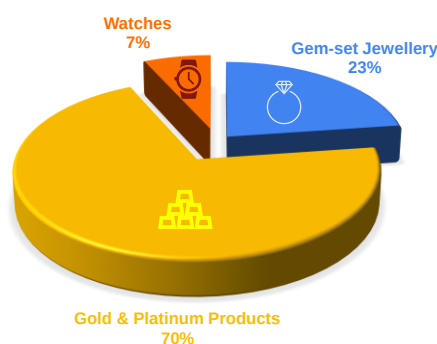
1.1 Company Background

Chow Tai Fook Jewellery Group Limited “CTFJ” is Chinese’s top-ranked jewellery retailer (Yiu, 2015), and the 2nd largest jewellery retailer in the globe (Magramo, 2020).

With an extensive retail network of ~3100 retail outlets in China, Hong Kong, Malaysia, Singapore, Malaysia, and the United States; under “Chow Tai Fook”, “Hearts on Fire”, and various brands, coupled with a fast-growing e-retail network through its owned and various other online platforms. More than 95% of the retail outlets are based in China, and the remaining outlets are largely in Hong Kong & Macau. The total number of employees employed is 30,400 (Chow Tai Fook, 2019, p. 15).

CTFJ’s major products include gold & platinum products, which is at 70% of its revenue; gem-set jewellery and watches produced 23% and 7% of the revenue, respectively (Chow Tai Fook, 2019, p. 231)

Figure 1-1 Revenue by Products in FYE31Mar-19



As of FYE31Mar-19 (HK\$'million)	Chow Tai Fook	Luk Fook	Tse Sui Luen
Gem-set Jewellery	12,188	7,255	Breakdown not available
Gold & Platinum Products	37,649	7,798	
Watches	3,645	-	

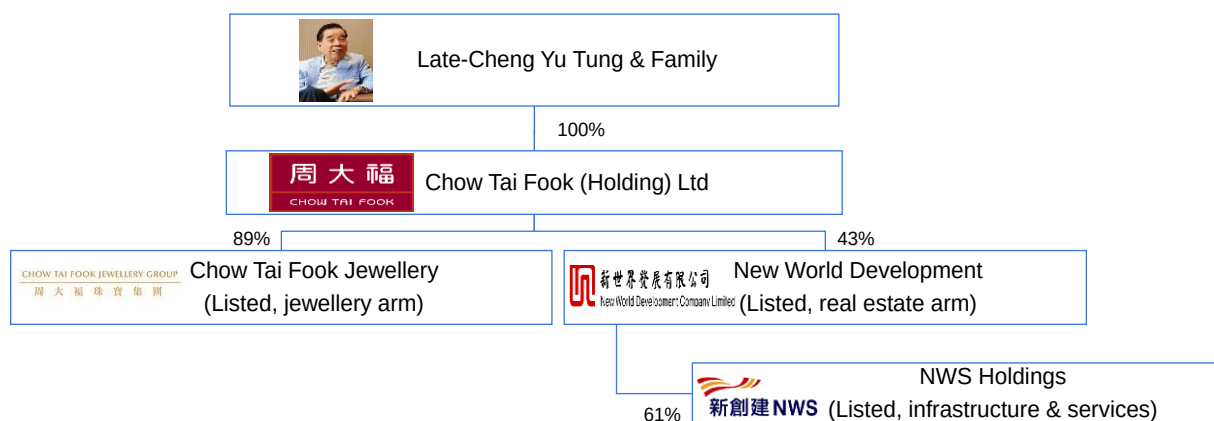
Source: Constructed by the author

CTFJ is a well-known jewellery brand in the Chinese-speaking community, i.e., solid branding and reputation. It has 90 years of track record that covers high-end to mass luxury jewellery. It owns a vertically integrated business model, from raw materials procurement, design, production, to marketing & sales, which provides practical and tight control on quality and costs, allowing CTFJ to better adapt to the market trends (Chow Tai Fook, 2019, p. 111).

1.2 Organization Structure

CTFJ is one of the key subsidiaries of ‘Chow Tai Fook (Holding) Ltd.’, owned by the family of late Cheng Yu Tung (Chow Tai Fook, 2019, p. 162), one of the wealthiest families in Asia, and part of the top four conglomerates in Hong Kong (Chung and Karmali, 2020).

Figure 1-2 Organization Structure



Source: Constructed by the author

1.3 IPO History and Market Capitalization:

Listed since 15 Dec-11 on HKEx under stock code 1929, which raised HK\$15.26 billion to back its growth in China (Reuters, 2011), CTFJ has a strong market capitalization of HK\$79.4 billion in FYEMar-19 (Chow Tai Fook, 2019, p. 121). Comparatively, the two other competitors, Luk Fook “LF” and Tse Sui Luen “TSL”, have lower market capitalization of HK\$15.5 billion (Luk Fook, 2019) and HK\$434 million (Tse Sui Luen, 2019), respectively (Table 1-1).

Table 1-1 Market cap and other relevant data on share performance

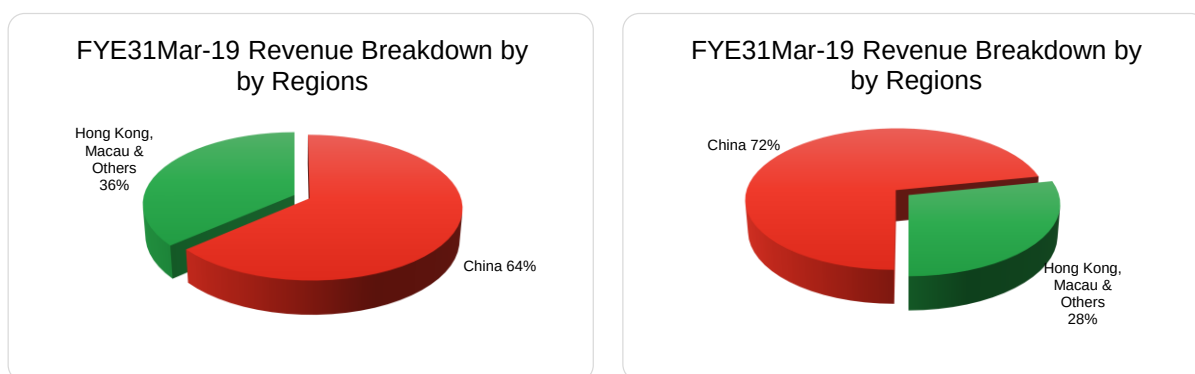
Financial Year End	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
Outstanding Shares ('000)	10,000,000	10,000,000	10,000,000	587,108	587,108	587,108	248,552	246,837	210,336
Earnings per share (HK\$) EPS = Profit / Share	0.47	0.42	0.32	2.56	2.33	1.75	0.22	0.20	0.11
Dividend per share (HK\$)	0.65	0.57	0.51	1.15	1.10	1.10	0.10	0.09	0.05
Dividend Yield (%) = Dividend / Share Price	8.19	6.38	6.75	4.35	3.86	4.45	5.94	4.27	2.11
Price per Share (HK\$)	7.94	8.94	7.55	26.45	28.50	24.70	1.75	2.20	2.49
PPS (Figure 2-4)									
P/E Ratio (times)= PPS / EPS	17.0	21.3	24.0	10.3	12.2	14.1	8.0	11.0	22.5
Market Capitalisation (HK\$'000) = Outstanding shares x PPS	79,400,000	89,400,000	75,500,000	15,529,003	16,732,574	14,501,564	434,965	543,041	522,896
Market Cap/Share (HK\$)	7.94	8.94	7.55	26.45	28.50	24.70	1.75	2.20	2.49
Book Value/Share (HK\$)	6.22	5.76	4.94	24.57	20.81	18.19	9.89	10.35	12.50
Market to book ratio (times)	1.28	1.55	1.53	1.08	1.37	1.36	0.18	0.21	0.20

Source: Constructed by the author

1.4 Operating Business Overview

As of FYE31Mar-19, CTFJ generated 64% of the revenue from China and 36% from Hong Kong, Macau & Others. Segment profit-wise, China produced 72% compared to markets outside China at 28% (Chow Tai Fook, 2019, p. 228).

Figure 1-3 Revenue and Segment Profit by Regions



Source: Constructed by the author

1.5 Current & Historical Performance

CTFJ has a profitable track record (Chow Tai Fook, 2011-2019) even during slower years in the retail sector in FYEMar-16 and 17 (Table 1-2), reflecting its resilience during down cycles. Its fast expansion to China provides revenue diversification to its traditional Hong Kong & Macau markets. The balance sheet is strong, with a sizeable asset of HK\$62.2 billion and equity of HK\$31.4 billion (Chow Tai Fook, 2019, p. 191).

Table 1-2 CTFJ's historical performance between 2011 and 2019

Financial Year End (HK'million)	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Trend
Revenue	↓ 35,043	↑ 56,571	↑ 57,434	↑ 77,407	↑ 64,277	↓ 56,592	↓ 51,246	↑ 59,156	↑ 66,661	
Net Profit	↓ 3,673	↑ 6,571	↑ 5,678	↑ 7,449	↑ 5,536	↓ 2,979	↓ 3,151	↑ 4,203	↑ 4,684	
Total Assets	29,049	47,414	43,219	61,817	61,121	55,675	49,402	49,312	62,237	
Equity	29,049	47,414	43,219	38,452	40,541	35,750	32,502	34,098	31,403	

Source: Constructed by the author

1.6 Market position against competitors

Under the peer comparison, we will focus on their performance and assets.

By performance: CTFJ being the largest Asia jewellery retailer, generates robust revenue at 66.9 billion (Chow Tai Fook, 2019, p. 190), leading its peers by 4.2X from LF (Luk Fook, 2019), and 16.4X from TSL (Tse Sui Luen, 2019). Market share is not publicly available.

Figure 1-4 Revenue Contribution by Region



Source: Constructed by the author

Its massive foothold in China attributes CTFJ's strong performance, represents 63.7% of its total revenue in FYE31Mar-19 (Chow Tai Fook, 2019, p. 228). Compared to LF and TSL, who are gradually growing in China. Overall, the revenue in the Hong Kong market is declining within the industry in the last three years (Table 1-3).

Table 1-3 Revenue by Region

Financial Year End	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
% revenue contribution from China	63.7%	62.2%	60.5%	37.9%	34.7%	32.3%	61.8%	61.5%	60.6%
% revenue contribution from HK, Macau & Other markets	↓ 36.3%	👉 37.8%	👈 39.5%	62.1%	65.3%	67.7%	38.2%	38.5%	39.4%

Source: Constructed by the author

By non-current assets: To achieve cost optimization, CTFJ is also the first amongst its peers to invest its production facilities to China. 68.7% of its non-current assets as of 31 Mar-19 (Table 1-4), primarily its production facilities & equipment, are based in China (Chow Tai Fook, 2019, p. 230).

Table 1-4 Non-Current Assets Breakdown by Region

Non-Current Assets Breakdown by Region (as of 31 Mar-19)

	Chow Tai Fook		Luk Fook		Tse Sui Luen	
	HK\$'000	%	HK\$'000	%	HK\$'000	%
China	3,769,800	68.7%	783,125	44.3%	51,027	26.5%
Hong Kong, Macau & Others	1,718,200	31.3%	984,584	55.7%	141,332	73.47%
Total	5,488,000	100%	1,767,709	100%	192,359	100%

Source: Constructed by the author

1.7 Major development and challenges ahead

Ever since the global economic crisis in 2009, CTFJ expanded its business operations globally by enlarging the Chinese markets by increasing outlets in China. According to its IPO prospectus, points of sales increased from 1,506 as of 30 Sep-11 (Chow Tai Fook, 2011, p. 68) to 3,100 as of 31 Mar-19 (Chow Tai Fook, 2019, p. 15).

CTFJ faces intense competition from local and major Chinese jewellery retailers such as Laofengxiang and Laomiao (HKTDC Research, 2019). The above risk can be mitigated through its longstanding track record and experience of over 90 years, various brands under CTFJ to meet different age groups and its cost efficiencies through its Chinese production facilities (Chow Tai Fook, 2019, p. 22).

Protests in Hong Kong had impacted its Hong Kong operations since Jun-19, which affected tourist arrivals in the 2nd half of 2019, albeit the revenue affected can be cushioned by its continued expansion in China. The growth of inbound arrivals to Hong Kong in 2019 was -14.2% (Figure 1-5).



Source: (Hong Kong Tourism Board, 2019)

Weak retail segments are arising from temporary lock-downs and the absence of tourist arrivals amid the COVID-19 outbreak. China has undergone a lock-down in Feb/Mar-20, which saw the temporary closures of its retail stores in China, albeit, they have resumed businesses since early Apr-20 (Brown, 2020). However, its 101 number of Hong Kong and Macau retail outlets (Chow Tai Fook, 2019, p. 15) continued to be affected by the virus pandemic (Kothari, 2020).

2. Financial Analysis

Typical of the nature of the business, which requires the jewellery retailers to maintain a high inventory level, thus quick ratio and cash ratio may not be a relevant measurement. Essentially, inventory by 2019 was 39 billion (Chow Tai Fook, 2019, p. 191) represents 73% of CTFJ's current liabilities and 63% of its total liabilities (Table 2-2). In this chapter, a peer comparison method will be used to review the company's profitability, efficiency, liquidity, solvency, and bankruptcy index.

2.1 Profitability Analysis and Growth Capacity

Table 2-1 Profitability Analysis

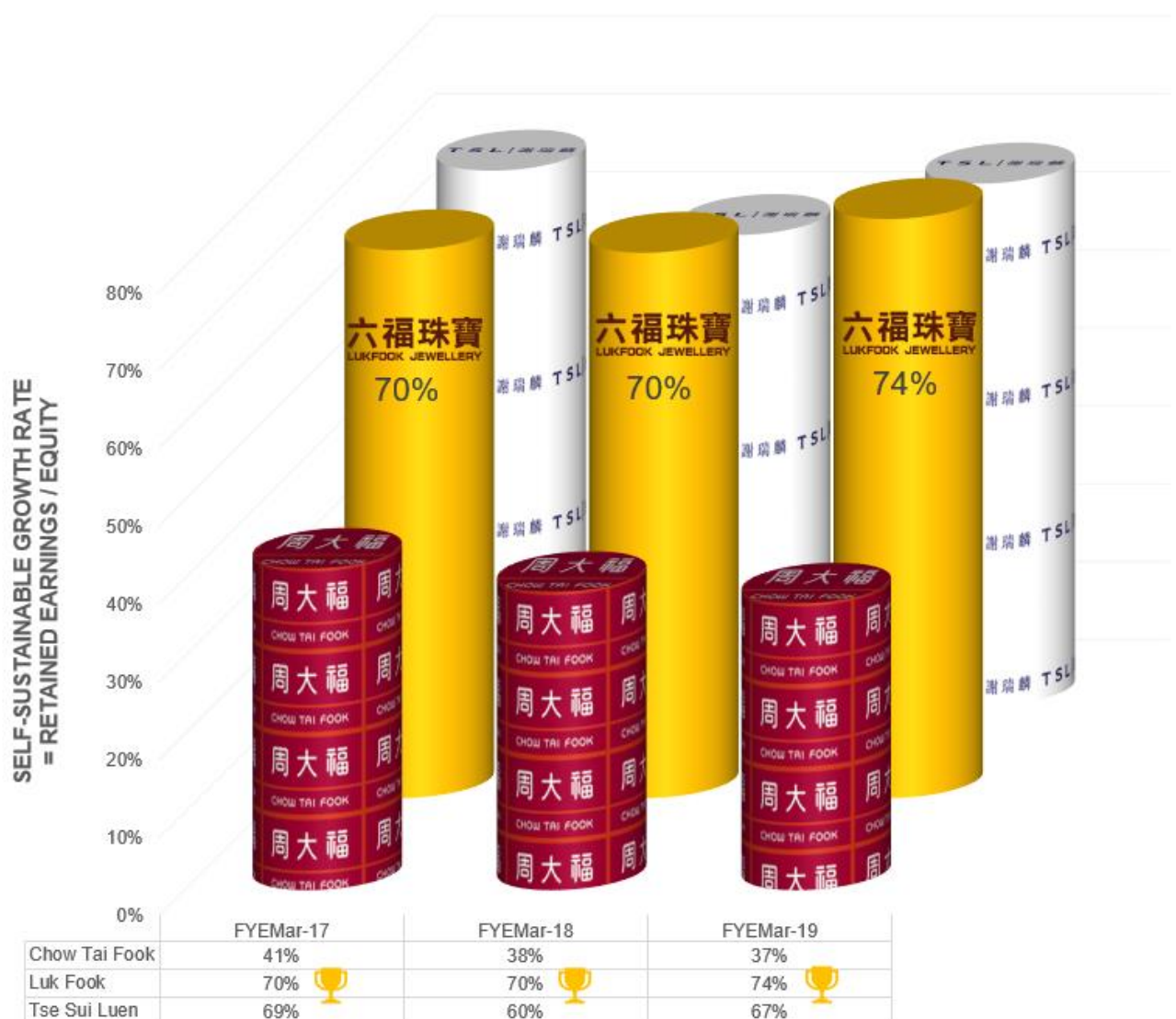
Financial Year End (HK\$'million)	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
Turnover (Revenue)	66,661	59,156	51,246	15,860	14,578	12,807	4,065	4,137	3,411
y-o-y growth	12.7%	15.4%		8.8%	13.8%		-1.7%	21.3%	
Gross Profit	18,602	16,213	14,963	4,034	3,741	3,277	1,619	1,632	1,884
y-o-y growth	14.7%	8.4%		7.8%	14.2%		-0.7%	-13.4%	
EBITDA	7,606	6,880	5,353	1,853	1,621	1,339	150	268	590
y-o-y growth	10.5%	28.5%		14.3%	21.0%		-44.2%	-54.5%	
Net Profit	4,684	4,203	3,151	1,504	1,370	1,027	54	50	23
y-o-y growth	11.4%	33.4%		9.7%	33.4%		9.4%	113.4%	
Self-sustainable Growth Ratio = Retained Earnings / Equity	36.8%	38.2%	41.2%	74.3%	70.0%	70.3%	67.0%	60.4%	68.7%
Gross Profit Margin = Gross Profit / Revenue	27.9%	27.4%	29.2%	25.4%	25.7%	25.6%	39.8%	39.4%	55.2%
EBITDA Margin = EBITDA / Revenue	11.4%	11.6%	10.4%	11.7%	11.1%	10.5%	3.7%	6.5%	17.3%
Net Profit Margin = Net Profit / Revenue	7.0%	7.1%	6.1%	9.5%	9.4%	8.0%	1.3%	1.2%	0.7%

Source: Constructed by the author

Table 2-1 shows that CTFJ has been a very profitable company over the three years of comparison. CTFJ registered 12.7% and 15.4% revenue growth in FYE31Mar-19 and FYE31Mar-18, higher than its peers due to the continued expansion in China, which has a more substantial exposure compared to the other two peers. EBITDA margin of CTFJ is comparable to LF and stronger than TSL. The net profit margin of CTFJ, however, is lower than LF because of LF's smaller portion of interest expense, due to its lower proportion of debt (Table 2-2).

Sustainable growth rate illustrates the company's ability to grow by keeping the wealth composition without selling new equity (Platt, Platt and Chen, 1995). In FYEMar-19, CTFJ recorded retained profit at 11,547.3 million (Chow Tai Fook, 2019, p. 193) and equity at 31,403 million (Chow Tai Fook, 2019, p. 74), thus sustainable growth rate was at 37%, a decreasing trend since 2017. In contrast to the peers, they were almost double in terms of the growth ratio (Figure 2-1). CTFJ may build up its retained earnings to maintain a higher rate for future developments.

Figure 2-1 Self-sustainable growth ratio



Source: Constructed by the author

2.2 Financial Positions (Liquidity and Solvency Analysis)

In the sections below, we will compare CTFJ with its peers through some key financial figures and ratios with the data according to annual reports from Chow Tai Fook (2017-2019), Luk Fook (2017-2019), and Tse Sui Luen (2017-2019).

Table 2-2 Liquidity and Solvency Analysis

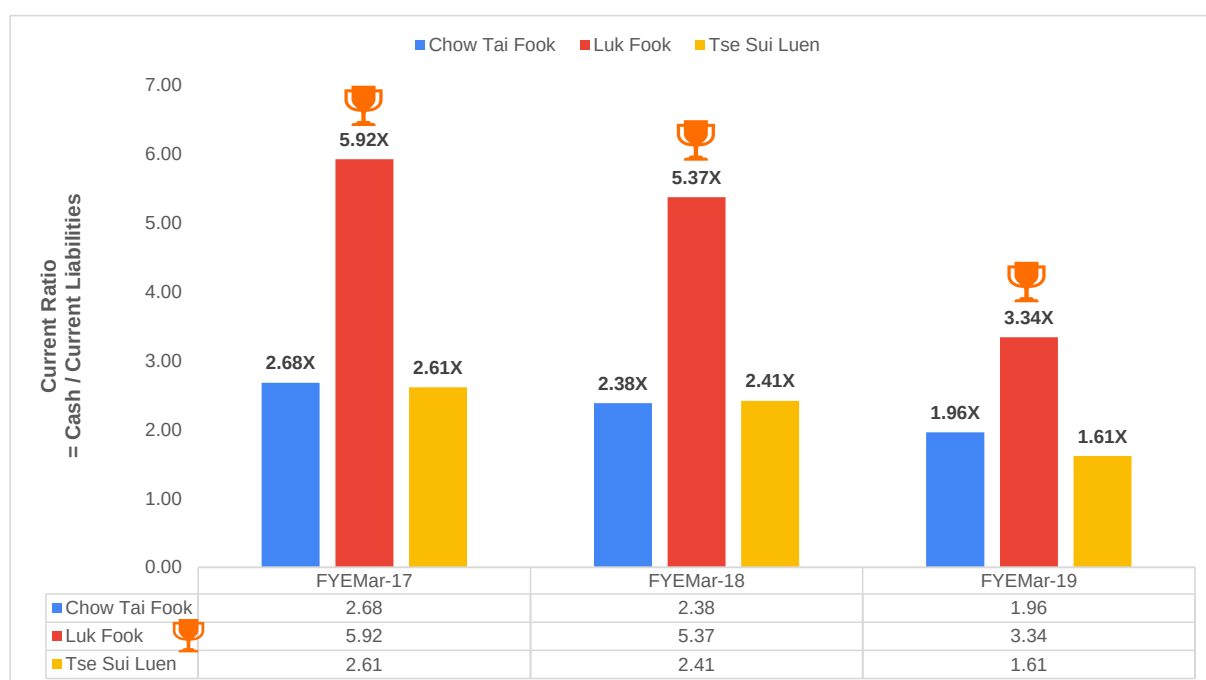
Financial Year End (HK\$million)	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
(Key financial figures only)									
Cash	7,641	7,944	7,943	2,087	2,098	1,862	251	268	324
Inventory	39,486	34,929	29,259	9,322	7,992	6,973	1,436	1,642	1,479
Accounts Receivables	6,639	6,410	5,057	363	360	217	148	189	236
Current Assets	53,778	49,312	42,269	12,400	10,879	9,431	2,172	2,317	2,380
Accounts Payables	10,684	8,359	5,693	976	1,125	1,005	541	566	576
Current Liabilities	27,471	20,719	15,788	3,716	2,026	1,594	1,345	960	911
Short Term Debt	15,472	11,158	9,408	2,306	726	437	787	377	313
Long Term Debt	2,597	2,100	600	-	-	-	-	409	710
Total Asset	62,237	57,570	49,402	14,424	12,215	10,679	2,457	2,554	2,630
Total Equity	31,403	34,098	32,502	10,563	10,080	8,980	1,086	1,153	974
Total Debt	18,068	13,258	10,008	2,306	726	437	787	786	1,023
Net Debt	10,428	5,314	2,065	220	-1,372	-1,425	536	517	699
<u>Ratios</u>									
Cash Ratio = Cash / Current Liabilities	0.28	0.38	0.50	0.56	1.04	1.17	0.19	0.28	0.36
Current Ratio = Current Asset / Current Liabilities	1.96	2.38	2.68	3.34	5.37	5.92	1.61	2.41	2.61
Quick Ratio = (Current Asset - Inventory) / Current Liabilities	0.52	0.69	0.82	0.83	1.42	1.54	0.55	0.70	0.99
Stock Credit Index = (Current Liabilities - (Current Assets - Stock)) / Stock	0.33	0.18	0.09	0.07	(0.11)	(0.12)	0.42	0.17	0.01
Total Asset Turnover = Sales / Total Asset	1.07	1.03	1.04	1.10	1.19	1.20	1.65	1.62	1.30
Working Capital Turnover = Sales / (Current Asset - Current Liabilities)	2.53	2.07	1.94	1.83	1.65	1.63	4.92	3.05	2.32
Gearing = Debt / Equity	0.58	0.39	0.31	0.22	0.07	0.05	0.72	0.68	1.05
Net Gearing = Net Debt / Net Equity	0.33	0.16	0.06	0.02	(0.14)	(0.16)	0.49	0.45	0.72
Leverage = Debt / EBITDA	2.38	1.93	1.87	1.24	0.45	0.33	5.25	2.93	1.73
Net Leverage = Net Debt / EBITDA	1.37	0.77	0.39	0.12	(0.85)	(1.06)	3.58	1.93	1.19
<u>Asset Conversion Cycle</u>									
Days Inventories on Hand = (Inventory x 365 days) / Cost of good sold	300	297	294	288	269	267	214	239	286
Debtor Collection Period = Year End Debtors x 365 / Annual Credit Sales	36	40	36	8	9	6	13	17	25
Creditor Payment Period = Year End Creditor x 365 / Annual Credit Purchase	81	71	57	30	38	38	81	82	112
Cash Cycle = Stock Turnover - Creditor Payment Period + Debtor Collection Period	255	265	273	266	240	235	147	173	200

Source: Constructed by the author

2.2.1 Current Ratio

A company is vigorous with a high current ratio; it is an indication of a company's capability for using its existing assets to repay its interim debt (Kliestik *et al.* 2020). CTFJ's current ratio dropped from 2.38X in FYE31Mar-18 to 1.96X in FYE31Mar-19, mainly due to the higher current liabilities in FYE31Mar-19. Whilst its current ratio of 1.96X is lower than LF's of 3.34X (Figure 2-2), the ratio can still be considered healthy. It implies CTFJ has 1.96X more current assets than liabilities to covers its debts in FYEMar-19.

Figure 2-2 Current Ratio between FYE17-19

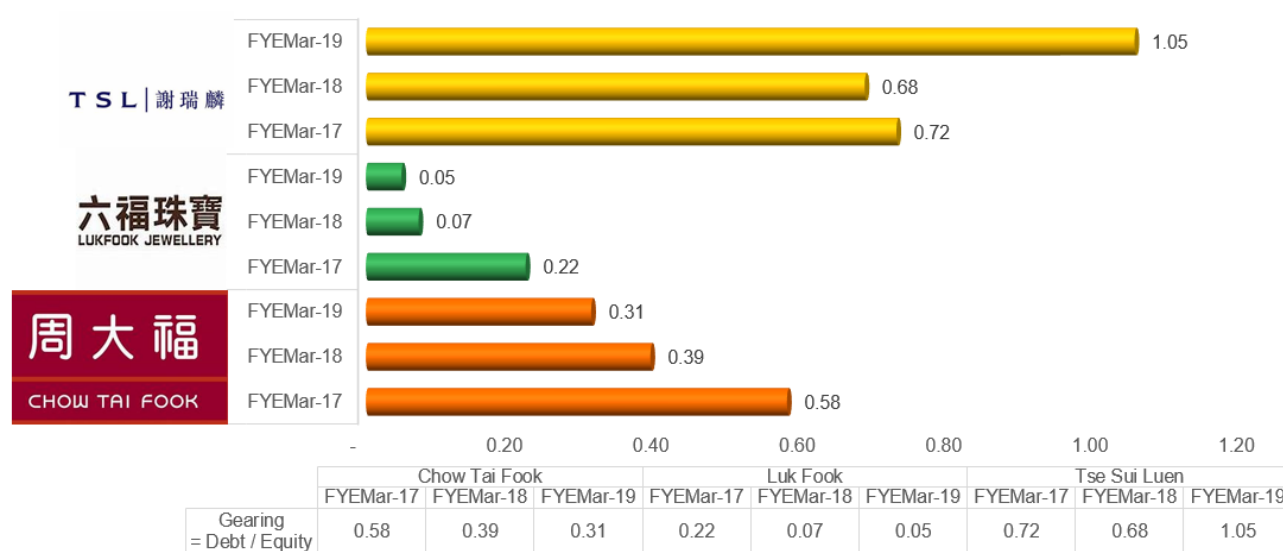


Source: Constructed by the author

2.2.2 Gearing Ratio

It is an indicator of the financial risk associated with a company. If a company has too much debt, it cannot generate revenue or income because it is unable to meet or cannot pay its financial obligations (Muradoglu, Bakke and Kvernes, 2005). In FYE31Mar-19, CTFJ's gearing increased from 0.39X to 0.58X, mainly due to higher total debt incurred. CTFJ's gearing is higher than LF's gearing of 0.22X, considering that CTFJ has been using debt to fund its China's expansion (Chow Tai Fook, 2019).

Figure 2-3 Gearing ratio between 2017 and 2019



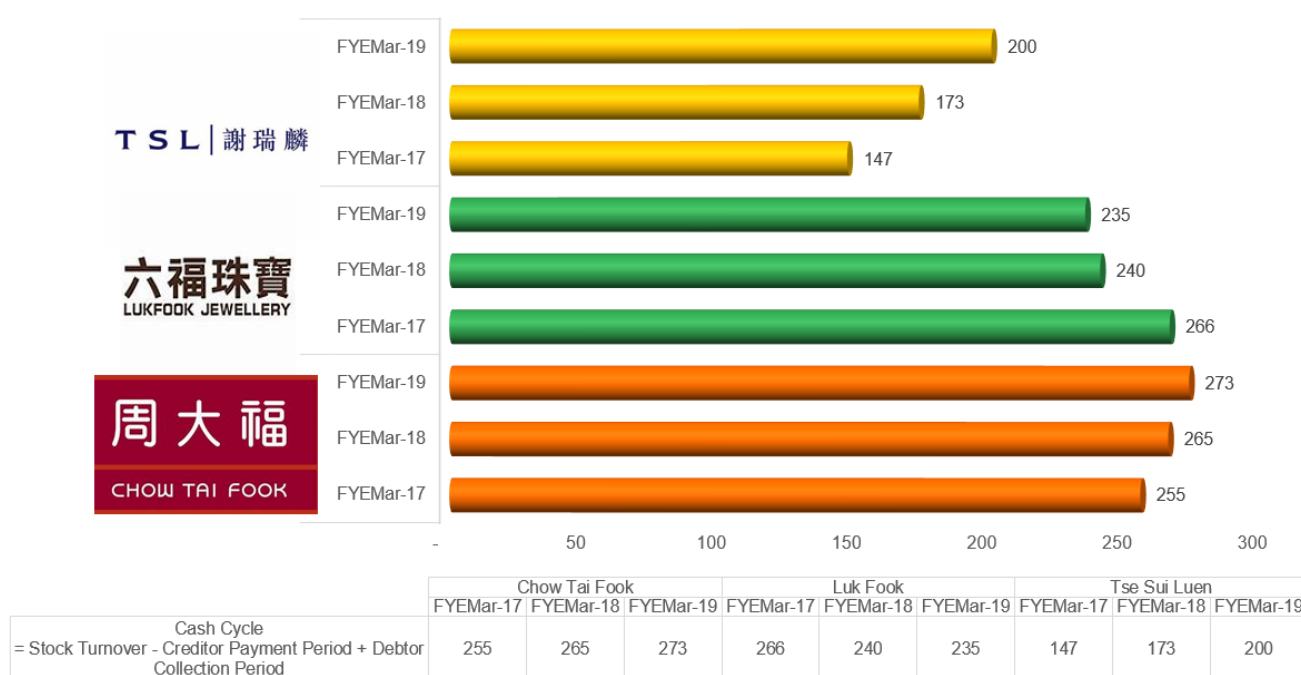
Source: Constructed by the author

Overall, LF and TSL did not take up long-term debt. If we consider CTFJ's cash at HK\$7.64 billion, net gearing is at a low and comfortable 0.33X (Table 2-2).

2.2.3 Cash Cycle

A research confirmed that the duration of the cash cycle impact to the company's lucrativeness (Yazdanfar and Öhman, 2014). CTFJ's cash cycle reduced from 273 days in Mar-17 to 255 days in Mar-19 (Table 2-2), mainly due to a higher creditor payment period, which may be an indicator of CTFJ's negotiation power as an industry leader. Like LF, jewellery retailers in general maintain relatively high cash cycles.

Figure 2-4 Cash Cycle between 2017 and 2019

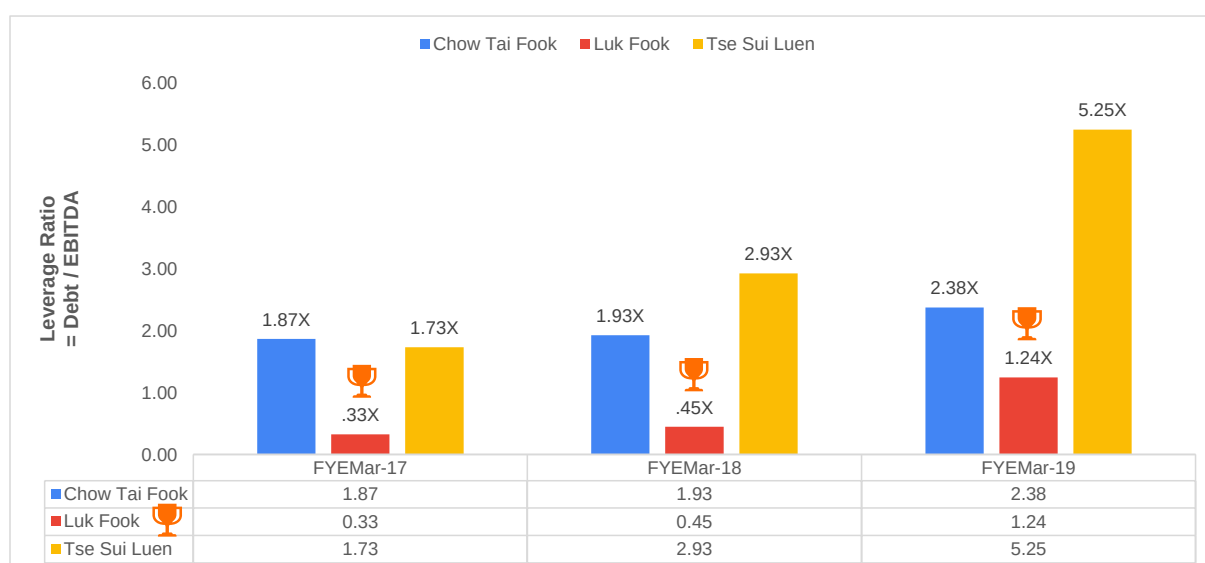


Source: Constructed by the author

2.2.4 Leverage Ratio

It reveals how long for a company to repay its debt with a constant rate of debt and EBITDA. In FYE31Mar-19, CTFJ's leverage increased from 1.93X to 2.38X (Figure 2-5), due to higher total debt incurred. CTFJ's leverage is higher than LF but lower than TSL, considering that the latter had a declining EBITDA margin between FYE31Mar-18 & FYE31Mar-19. If we consider CTFJ's cash at HK\$7.64 billion, its net leverage is indeed a healthy ratio at 1.37X (Table 2-2).

Figure 2-5 Leverage Ratio between FYE17-19



Source: Constructed by the author

2.2.5 Share Performance

CTFJ's P/E ratio at 17X appeared to be highest among the peers. Notwithstanding the above, its dividend yield 6.75% to 8.19% appears to be the highest as well (Table 2-3). It implies that investors are delighted to pay \$17 for \$1 current earning from CTFJ, investors are expecting a higher earnings progress in future comparing to its peer group.

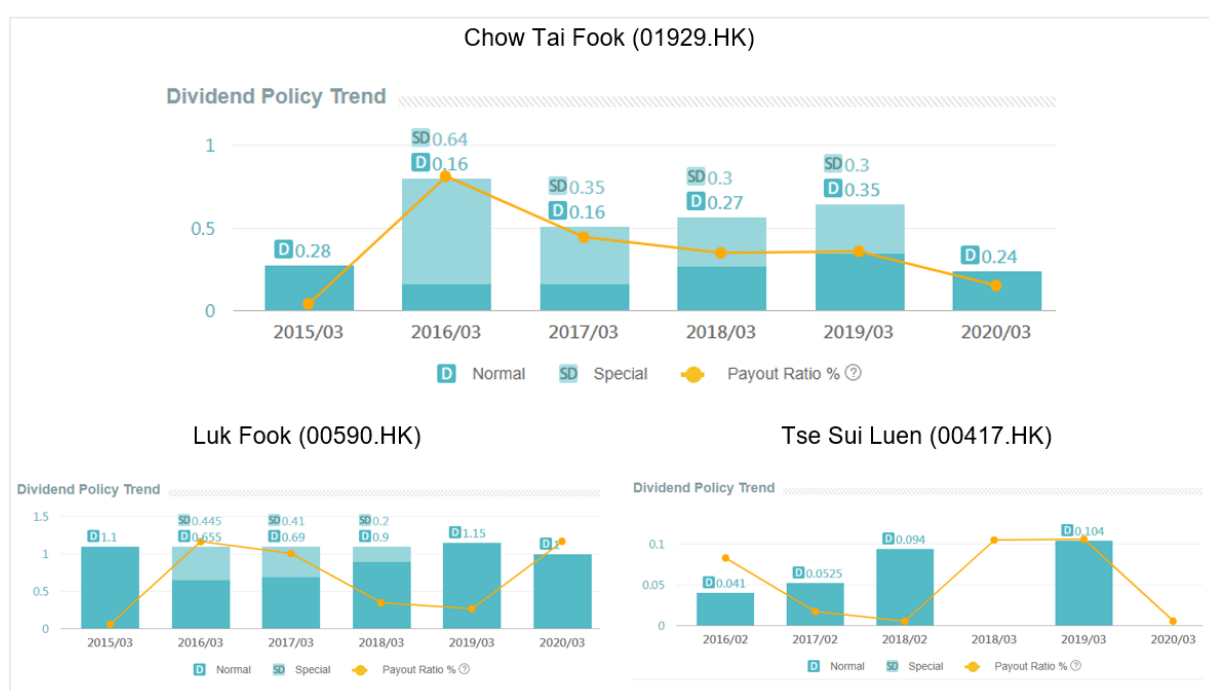
Table 2-3 Share Performance

Financial Year End	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
Outstanding Shares ('000)	10,000,000	10,000,000	10,000,000	587,108	587,108	587,108	248,552	246,837	210,336
Earnings per share (HK\$) EPS = Profit / Share	0.47	0.42	0.32	2.56	2.33	1.75	0.22	0.20	0.11
Dividend per share (HK\$) DPS (Figure 2-4)	0.65	0.57	0.51	1.15	1.10	1.10	0.10	0.09	0.05
Dividend Yield (%) = Dividend / Share Price	8.19	6.38	6.75	4.35	3.86	4.45	5.94	4.27	2.11
Price per Share (HK\$) PPS (Figure 2-6)	7.94	8.94	7.55	26.45	28.50	24.70	1.75	2.20	2.49
P/E Ratio (times)= PPS / EPS	17.0	21.3	24.0	10.3	12.2	14.1	8.0	11.0	22.5
Market Capitalisation (HK\$'000) = Outstanding shares x PPS	79,400,000	89,400,000	75,500,000	15,529,003	16,732,574	14,501,564	434,965	543,041	522,896
Market Cap/Share (HK\$)	7.94	8.94	7.55	26.45	28.50	24.70	1.75	2.20	2.49
Book Value/Share (HK\$)	6.22	5.76	4.94	24.57	20.81	18.19	9.89	10.35	12.50
Market to book ratio (times)	1.28	1.55	1.53	1.08	1.37	1.36	0.18	0.21	0.20

Source: Constructed by the author

The dividend per share in Table 2-3 is referring to the total of special and normal dividend (Figure 2-6) of the FYE.

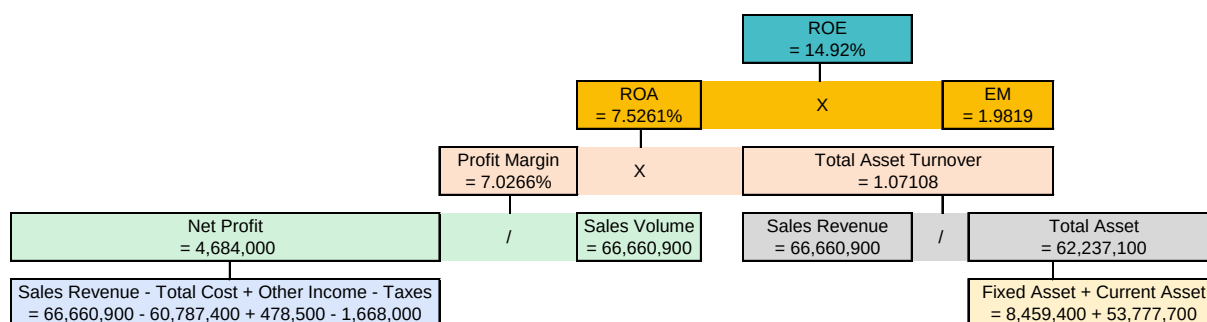
Figure 2-6 Dividend per share (HK\$)



Source: (AASTOCKS, 2020)

2.2.6 The Du Pont Identity

Figure 2-7 Du Pont Identity for CTFJ as of FYE31Mar-19



Source: Constructed by the author

It is a methodology to analyze what changes in operation may affect the company's return on equity (Little, Little and Coffee, 2009). By using this model, we may look more in-depth to the company's liability management, asset management, and sales management. Table 2-4 below is using the data from the annual reports of Chow Tai Fook (2017-2019), Luk Fook (2017-2019), and Tse Sui Luen (2017-2019).

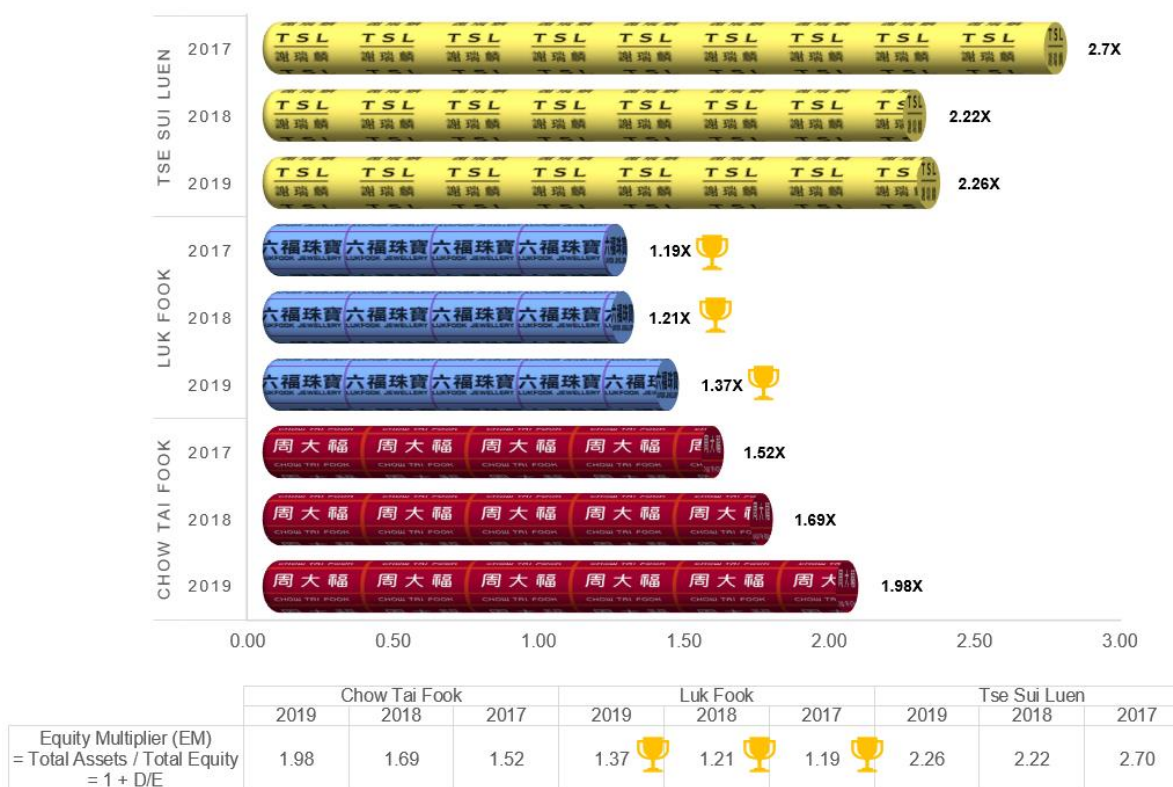
Table 2-4 Data used for Du Pont Model

Financial Year End (HK'000)	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
Total Assets	62,237,100	57,569,900	49,401,900	14,423,572	12,214,878	10,679,250	2,457,147	2,553,850	2,629,568
Total Equity	31,403,000	34,097,600	32,501,500	10,562,916	10,079,737	8,979,940	1,085,710	1,152,814	974,282
Equity Multiplier (EM) = Total Assets / Total Equity	1.9819	1.69	1.52	1.37	1.21	1.19	2.26	2.22	2.70
Net Profit Margin = Net Profit / Revenue	7.0266%	7.1%	6.1%	9.48%	9.40%	8.02%	1.3%	1.2%	0.7%
Total Asset Turnover = Sales / Total Asset	1.07108	1.03	1.04	1.10	1.19	1.20	1.65	1.62	1.30
ROA = Profit Margin x Total Asset Turnover	7.5261%	7.30%	6.38%	10.42%	11.22%	9.62%	2.20%	1.94%	0.88%
Return on Assets (ROA) = Profit of the Year / Total Asset	7.5261%	7.3012%	6.3785%	10.4250%	11.2184%	9.6165%	2.2045%	1.9386%	0.8824%
Return on Equity (ROE)	★ 14.92%	★ 12.33%	☆ 9.70%	14.24%	13.59%	11.44%	4.99%	4.29%	2.38%

Source: Constructed by the author

Liability Management: CTFJ's EM in FYEMar-19 was slightly lower than LF but performing stronger than TSL (Figure 2-8). Therefore, TSL has more financial leverage in this comparison. Given the risks mentioned in Chapter 1.7 that may affect the cash flow of the industry, CTFJ may reduce its debt financing so to lower the obligation in debt service costs.

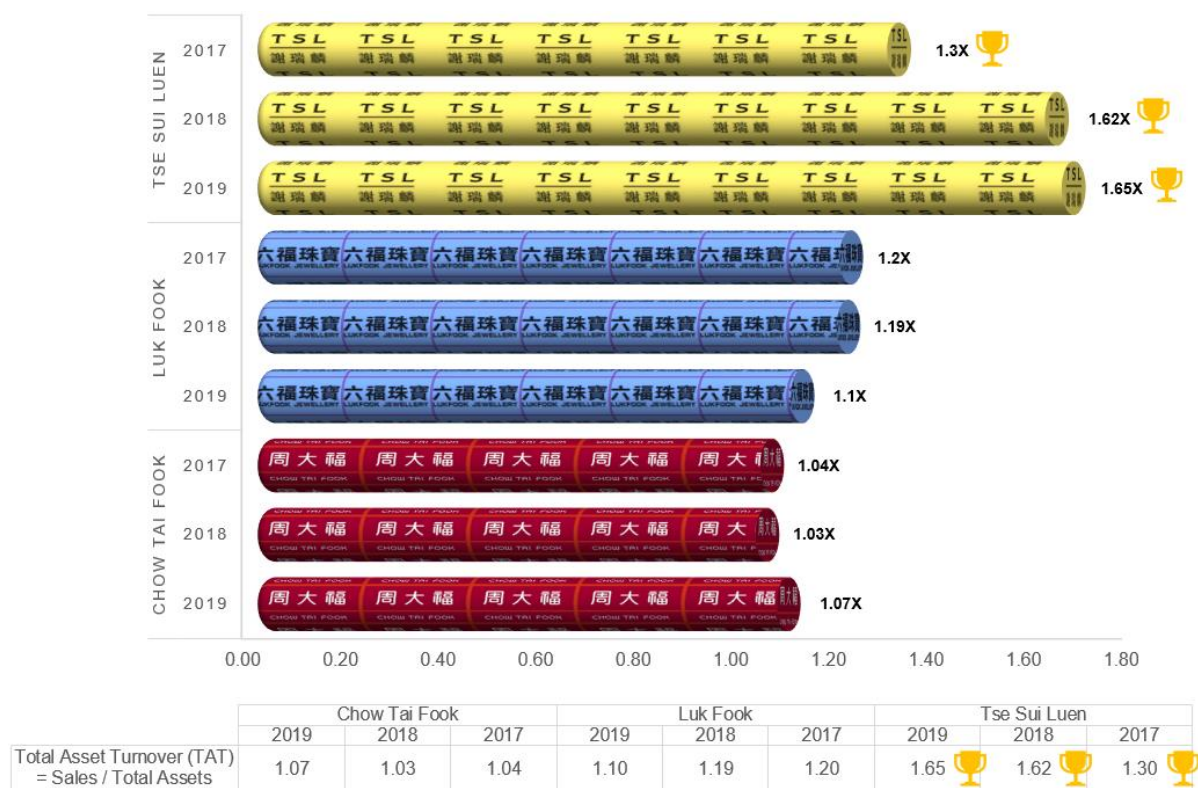
Figure 2-8 Equity Multiplier



Source: Constructed by the author

Asset Management: CTFJ's Total Asset Turnover is in line with its peer in FYEMar-19, although TSL is slightly better in this aspect (Figure 2-9). In general, it reflects that CTFJ is generating slightly more than 1 dollar of sales for every dollar invested in assets.

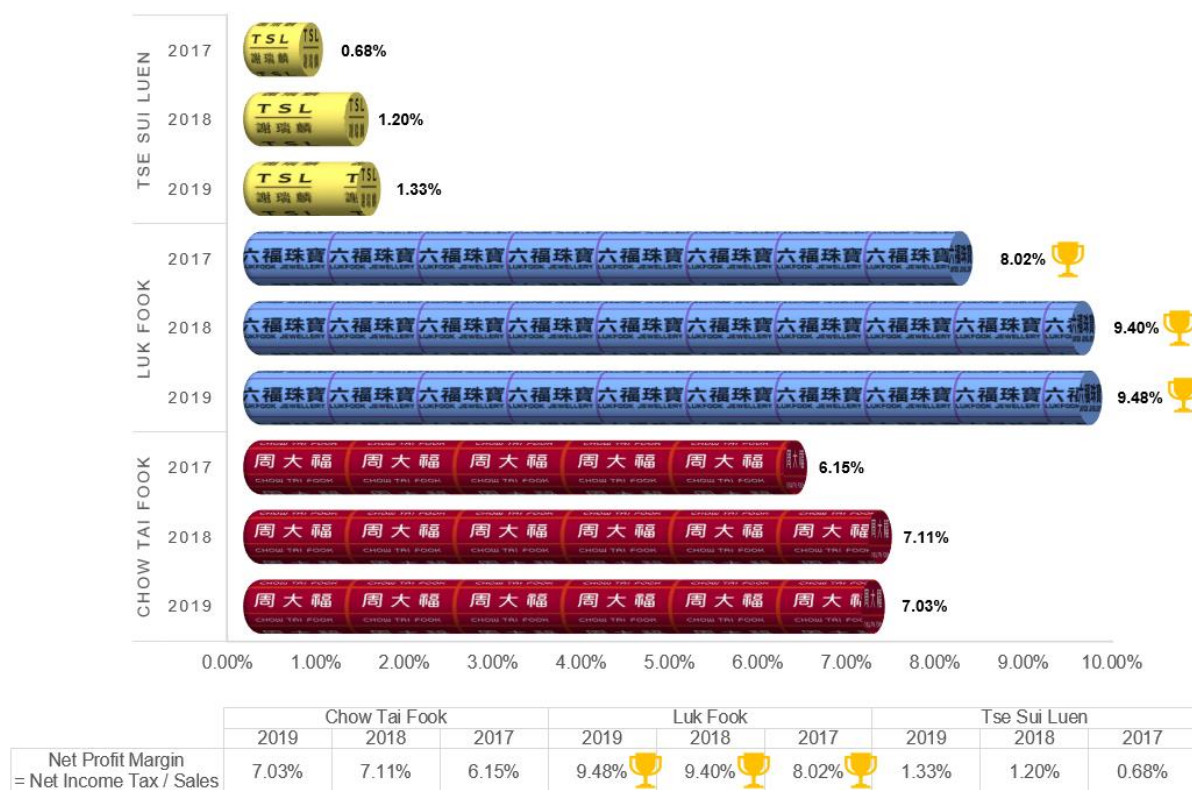
Figure 2-9 Total Asset Turnover



Source: Constructed by the author

Sales Management: Although CTFJ has the highest sales revenue, its net profit margin at 7.03% is not as healthy as LF at 9.48% in FYEMar-19 (Figure 2-10). It is due to the higher cost of goods sold.

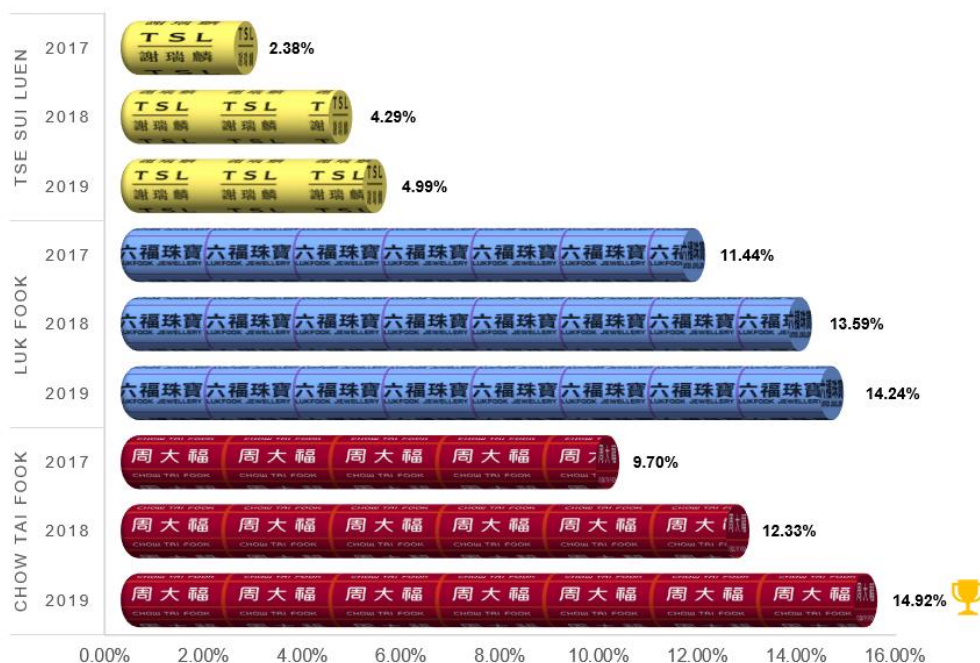
Figure 2-10 Net Profit Margin



Source: Constructed by the author

Overall, CTFJ captured its ROE at 14.92% in FYE31Mar-19, higher than its peer group (Figure 2-11). It indicates that CTFJ managed efficiently in using the company's assets to create profits.

Figure 2-11 Return on Equity



	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Return on Equity (ROE after tax) = Net Income After Tax / Total Equity	14.92% 🏆	12.33%	9.70%	14.24%	13.59%	11.44%	4.99%	4.29%	2.38%

Source: Constructed by the author

2.2.7 Bankruptcy Index

Altman Z-Score is an equation that reveals a company's possibility of going bankrupt (Batchelor, 2018). Data from Table 2-5 is retrieved from the companies' annual reports (Chow Tai Fook, 2017-2019), (Luk Fook, 2017-2019) and (Tse Sui Luen, 2017-2019).

Table 2-5 Data for Z-Score analysis

Financial Year End (HK\$'000)	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
Net Current Assets	26,306,800	28,592,800	26,480,400	8,684,355	8,852,462	7,837,544	826,970	1,357,135	1,468,640
Total Assets	62,237,100	57,569,900	49,401,900	14,423,572	12,214,878	10,679,250	2,457,147	2,553,850	2,629,568
Retained earnings	11,547,300	13,039,400	13,403,100	7,846,536	7,051,377	6,311,156	727,794	696,654	669,113
EBIT	6,639,800	5,995,300	4,484,600	1,853,042	1,620,806	1,339,317	149,802	268,396	589,823
Stock value (HK\$)	7.94	8.94	7.55	26.45	28.50	24.70	1.75	2.20	2.49
Number of Stock ('000)	10,000,000	10,000,000	10,000,000	587,108	587,108	587,108	248,552	246,837	210,336
Total Liabilities	30,834,100	23,472,300	16,900,400	3,860,656	2,135,141	1,699,310	1,371,437	1,401,036	1,655,286
Sales	66,660,900	59,156,400	51,245,500	15,859,990	14,578,409	12,807,277	4,064,920	4,137,179	3,410,923

Source: Constructed by the author

The stock value in Table 2-5 refers to the nearest closing stock value of the FYE.

Figure 2-12 CTFJ's Stock Value between FYEMar-17 and Mar-19

Chow Tai Fook Jewellery Group Limited (1929.HK) HKSE - HKSE Delayed Price. Currency in HKD Currency in HKD					
Date	Open	High	Low	Close*	Adj Close**
Apr 01, 2019	7.980	8.170	7.980	8.130	7.668
Mar 29, 2019	7.900	7.950	7.840	7.940	7.489
Mar 28, 2019	7.800	7.930	7.800	7.900	7.451

Chow Tai Fook Jewellery Group Limited (1929.HK) HKSE - HKSE Delayed Price. Currency in HKD Currency in HKD					
Date	Open	High	Low	Close*	
Mar 29, 2018	8.840	9.000	8.710	8.940	

Chow Tai Fook Jewellery Group Limited (1929.HK) HKSE - HKSE Delayed Price. Currency in HKD Currency in HKD					
Date	Open	High	Low	Close*	
Mar 31, 2017	7.440	7.550	7.360	7.550	
Mar 30, 2017	7.380	7.450	7.350	7.420	

Source: (Yahoo Finance, 2020)

Although CTFJ's Z-score 3.73 in FYE31Mar-19 was lower than LF at 5.42 (Table 2-6), in view that the latter has lower bank borrowings against total assets (Table 2-5), CTFJ is still financially healthy with a remote probability of bankruptcy.

Table 2-6 The Z-Score Analysis

Financial Year End	Chow Tai Fook			Luk Fook			Tse Sui Luen		
	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17	Mar-19	Mar-18	Mar-17
A = Working Capital/ Total Assets	0.42	0.50	0.54	0.60	0.72	0.73	0.34	0.53	0.56
B = Retained Earnings/ Total Assets	0.19	0.23	0.27	0.54	0.58	0.59	0.30	0.27	0.25
C = Earnings Before Interests & Tax / Total Assets	0.11	0.10	0.09	0.13	0.13	0.13	0.06	0.11	0.22
D = (Stock Value x Total number of stocks) / Total Liabilities	2.58	3.81	4.47	4.02	7.84	8.53	0.32	0.39	0.32
E = Sales / Total Assets	1.07	1.03	1.04	1.10	1.19	1.20	1.65	1.62	1.30
Z = 1.2A + 1.4B + 3.3C + 0.6D + 0.999E	3.73	4.57	5.04	5.42	8.01	8.44	2.86	3.22	3.25

Source: Constructed by the author

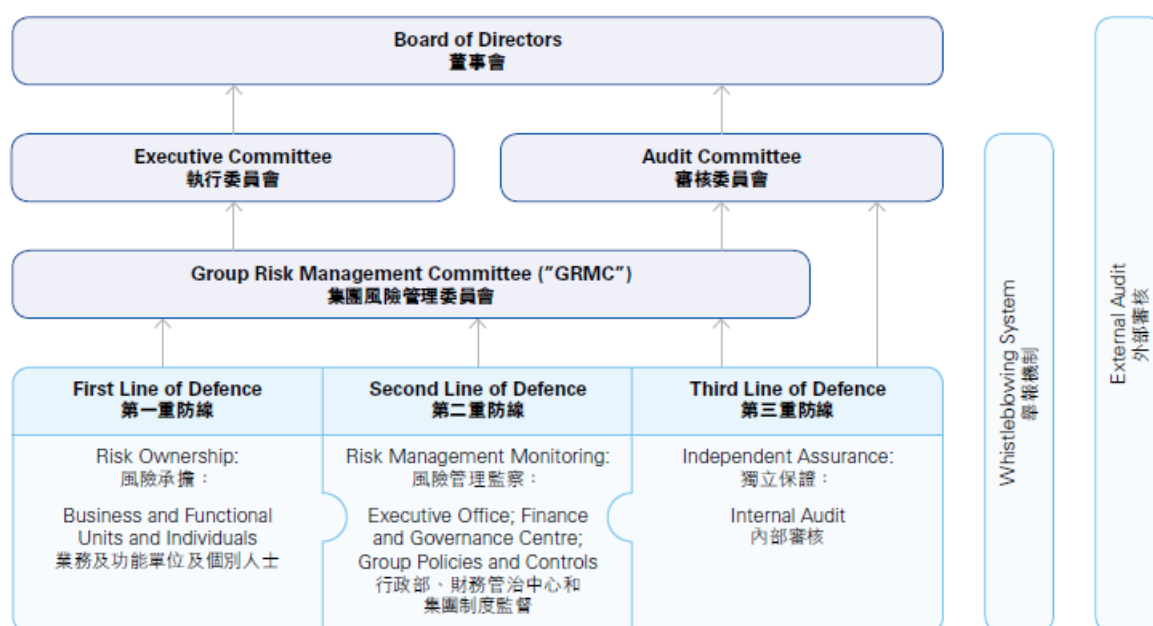
3. Corporate Governance – Internal control and risk management

Corporate Governance is crucial for a company as a responsibility to the business's interest of the shareholders for transparency, fair and accountable (Arjoon, 2005). In this chapter, we will study CTFJ's governance system and its risk management, followed by recommendations to enhance efficiency.

3.1 Corporate Governance System

CTFJ has a transparent and well-defined governance system, as reflected in its annual report (Chow Tai Fook, 2019, pp. 105-189).

Figure 3-1 Corporate Governance System



Source: (Chow Tai Fook, 2019, p. 166)

Its risk governance system is articulated between:

- (i) The Board Oversight helmed by the Board of Directors that appoints the Executive Committee and an independent Audit Committee that oversees the risk management and internal control systems on behalf of the board. The board is accountable for scrutinizing and assessing the CTFJ's policies are under legal and regulatory obligations, primarily the Listing Rules, the Companies Ordinance and the Securities & Futures Ordinance (Chow Tai Fook, 2019, p. 131).

(ii) Management Oversight through a Group Risk Management Committee comprises of Managing Director and executive directors from significant business and divisions, maintaining the risk management and internal control structure, and reviews principal risks quarterly (Chow Tai Fook, 2019, p. 167).

(iii) Three Lines of Defense (Chow Tai Fook, 2019, pp. 167-168) that comprises
First Line of Defense: Mainly is the business and function units.

Second Line of Defense: Made up of Executive Office, Finance and Governance Centre, and Group Policies. The above offices determine guidelines, processes, and benchmarks to underpin risk management and internal control systems. They also examine the prosecution of critical group guidelines such as anti-fraud policy, code of conduct, and crisis management policy.

Third Line of Defense: It is the independent audit department that reports to both the Group Risk Management Committee and the Audit Committee. Internal auditing independently assesses the suitability and efficacy of the risk management and internal control systems.

(iv) External audit offers opinions and measurements of the procedures. It conveys with board committees and management on any risk arising (Chow Tai Fook, 2019, p. 168).

(v) A separate whistleblowing system gives a private network to persuade staff to bring up matters on fraudsters, and misbehavior whilst assuring confidentiality and job protection (Chow Tai Fook, 2019, p. 168).

3.2 Transparency and board diversity within a traditional family business

CTFJ grew from a traditional family business, with 89% of shareholdings from the founding family (Chow Tai Fook, 2019, p. 162). To date, 4 out of 9 executive members are from the Cheng family helmed by Dr. Henry Cheng (Table 3-1). The rest of the board is from third parties, which forms more than 50% of the executive board, including the Managing Director, Mr. Wong Siu-Kee Kent.

The team of independent non-executive directors are all non-family members, which serves as chairmen or members of the independent nomination committee, remuneration committee, and audit committee, i.e., there is transparency and independence in the business.

Table 3-1 Executive directors from the Cheng family

Cheng Family members who are executive directors on the board	Responsibilities
Dr. Cheng Kar-Shun Henry (Chairman)	Strategic direction & overall performance of the Group
Dr. Cheng Chi-Kong Adrian	Strategic investment of the Group
Mr. Cheng Chi-Heng Conroy	Raw material procurement
Mr. Cheng Kam Biu Wilson	Bank and landlord relationship management

Source: Constructed by the author

Segregation of duties: The roles of Chairman Dr. Henry Cheng and Managing Director, Mr. Keng Wong, are well-defined. Dr. Cheng is providing leadership for the board and ensures the board delivers effectively. On the other hand, Mr. Wong is responsible for CTFJ's day-to-day operations and business developments.

Internal policies, controls, and practices: CTFJ has in place policies, controls and practices approved by the management led by Mr. Wong, including insider trading and business ethics, with an escalation process to the board for non-compliance. A review of internal controls is closely linked to its risk management framework, as defined above. The internal controls are subject to internal audits.

3.3 Compliance with Corporate Governance Code

Since its listing in 2011, there has been no adverse news on non-compliance with the Exchange. CTFJ compliance with all relevant listing rules and obligations outlined in Appendix 14 (HKEx, 2020a) of the Corporate Governance Code (Chow Tai Fook, 2019, p. 131). In terms of code of conduct covering insider trading (HKEx, 2020b), annual checks on directors and relevant employees have been conducted, and the above is in compliance (Chow Tai Fook, 2019, p. 171).

3.4 Emerging Risks and Challenges

Regulatory Risks: Other regulatory risks include environmental risk, local cyber-security risk, and Personal Data Privacy Ordinance (Hong Kong e-Legislation, 1996). CTFJ's production facilities are primarily based in China, and it must observe the local environmental regulations, such as carbon emissions. An annual sustainability report (Chow Tai Fook, 2019b) is published on both CTFJ & HKEx website. Separately, with an extensive online store, CTFJ has to ensure that there is sufficient protection on its customer information, including the General Data Protection Regulation in the European Union and Cybersecurity Law in China, are abided (Chow Tai Fook, 2019, p. 178).

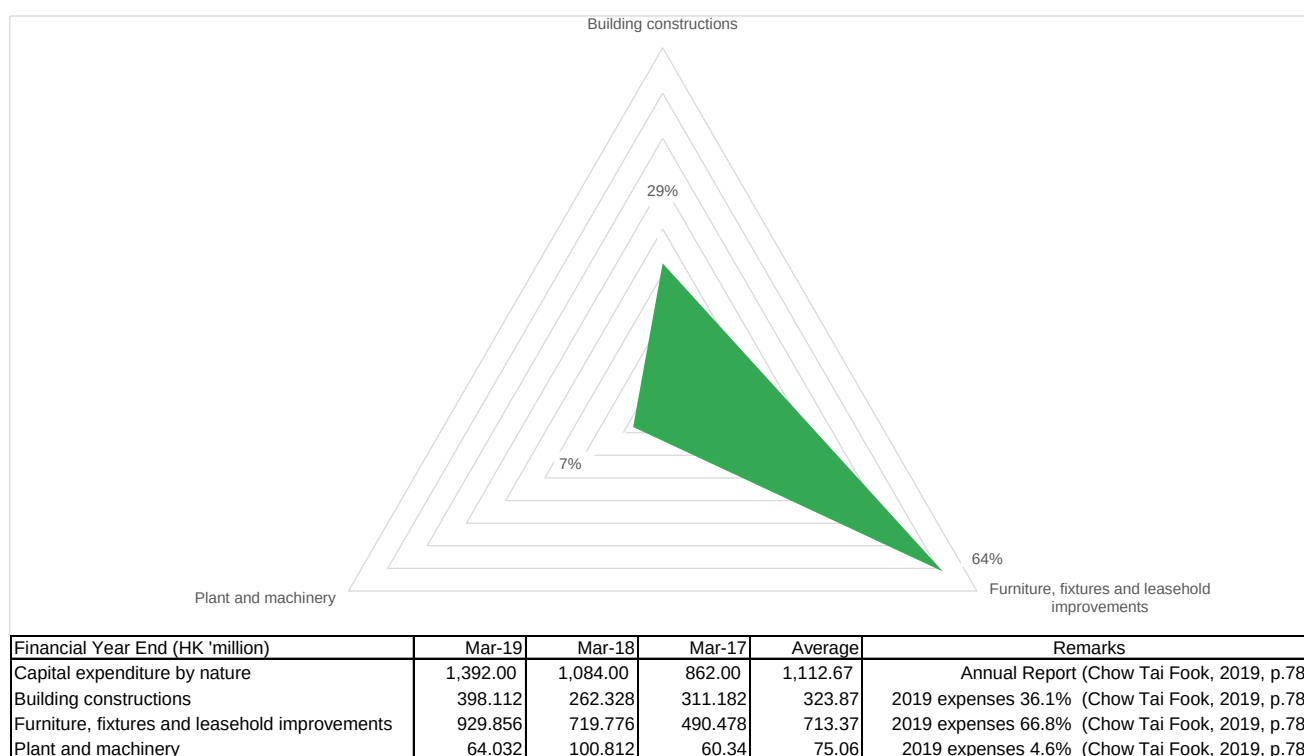
Anti-Money Laundering: Jewellery and its products are at higher peril of being used for money laundering due to its size, weight, and value. Considering that anti-money laundering regulations do not bound the industry, jewellery retailers may not be equipped with the essential skills and competence to distinguish dubious trades. CTFJ employed third party consultants to assess and examine its internal controls, competency of staff in identifying fraudulent transactions, and executing adequate regulations (Chow Tai Fook, 2019, p. 171).

COVID-19 Risk: COVID-19 risk is unprecedented. There may not be adequate risk controls to meet the unprecedented disruptions in supply chains, temporary closure of outlets, re-deployment of staff, management of high inventories during lock-down periods, and implementing of other cost-cutting measures without compromising risk controls.

4. Investment Project Appraisal

In the past three years, CTFJ's development mainly on its new POS, involved 29% of its investment in building constructions, and 64% to new furniture, fixtures, and leasehold improvements; only 7% of the investment was to its plant and machinery (Figure 4-1). Lately, CTFJ announced to expand the China market further, to open approximately 450 POS by Q1 2021 (Reuters, 2020). The expansion to China is the right choice here, and it may help to lower the risk level mentioned in the previous section (Chapter 3.4).

Figure 4-1 CTFJ's average expense in development between 2017 and 2019



Source: Constructed by the author

In 2019, CTFJ's China revenue was 42,432 million (Figure 1-4), we will delve into a 10-year investment project by tapping into 5% of the revenue, i.e., HKD 2,121.6 million. The plan shall use the fund to expand the 450 POS. Furthermore, to support the growth and boost production, CTFJ shall also consider modernizing and replacing its plants and machinery at the Chow Tai Fook Jewellery Culture Industrial Park by using the residual fund, which those were not upgraded in the recent years.

4.1 Cost breakdown of the investment project

The project shall employ total HKD 2,121.6 million, and the breakdown is according to the average expenditure between 2017 and 2019 (Table 4-1), except we are suggesting a bigger portion in replacing plant and machinery.

Table 4-1 Cost breakdown of the investment project

Investment Project	HK 'million	Remarks
Building constructions	323.87	Average expenditure (Figure 4-1)
Furniture, fixtures and leasehold improvements	713.37	Average expenditure (Figure 4-1)
Plant and machinery	1,084.36	Remaining project cost from the 5% of 2019 revenue
Total Project Cost	2,121.60	

Source: Constructed by the author

The forecasting will also take into the consideration of CTFJ's sales growth rate in China, EBITDA margin, and the major selling & distribution costs & general & administrative "SG&A" expenses, by the average between 2017 and 2019 (Table 4-2).

Table 4-2 Average financial data between 2017 and 2019 for projection

Financial Year End	Mar-17	Mar-18	Mar-19	Average	Remarks
Sales growth rate in China	13.26%	15.72%	-8.55%	6.81%	Annual Report (Chow Tai Fook, 2019, p.228)
EBITDA Margin	11.41%	11.63%	10.45%	11.16%	Table 2-1
Major SG&A expenses	7.10%	6.90%	6.70%	6.90%	Annual Report (Chow Tai Fook, 2019, p.69)

Source: Constructed by the author

4.2 Profit and Cash Flow

In this section, we will examine the profit and cash flow of this investment project, with the depreciation rate outlined in Table 4-3, followed by an investment appraisal.

Table 4-3 Depreciation rate and other data for the investment project

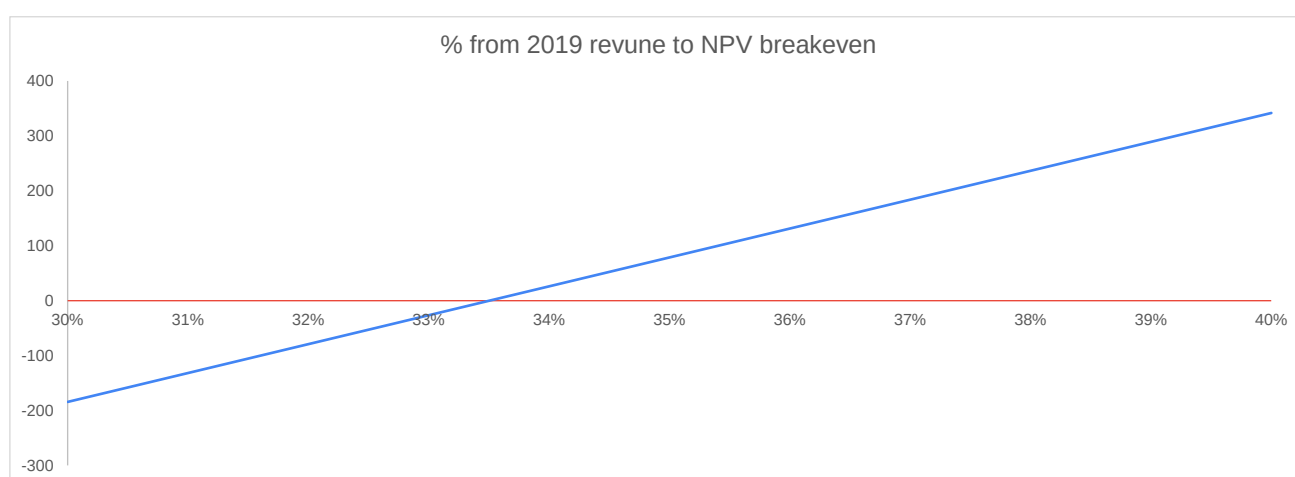
Remaining basic information		Remarks
Buildings depreciation years	20	Straight-line basis (Chow Tai Fook, 2019, p.209)
Furniture, fixtures and leasehold improvements	20%	Annual Report (Chow Tai Fook, 2019, p.209)
Plant and machinery	10%	Annual Report (Chow Tai Fook, 2019, p.209)
Sales growth rate, for first 5 years	6.81%	Average between 2017 and 2019 (Table 4-2)
Ultimate growth rate, for year 6 onward	3.2%	Assume long-term investment growth. According to latest China's GDP 3.2% (National Bureau of Statistics of China, 2020)
EBITDA Margin	11.16%	Average between 2017 and 2019 (Table 4-2)
Major SG&A expenses to revenue	6.90%	Average between 2017 and 2019 (Table 4-2)

Source: Constructed by the author

4.2.1 Profit in 10 years

In 2019, CTFJ's China revenue was 42,432 million (Figure 1-4). If we launch the new project, assuming in Year 1, the project itself is expecting 40% from 2019's revenue. NPV breakeven point to the 2019 revenue is between 33% to 34% (Figure 4-2), since this project will establish extra POS, new plant and machinery, that will increase its production resulted in higher cash flows. Thus, we are expecting 40% from last year as a conservative approach, i.e., this project itself will bring in revenue of $42,432 \times 40\% = 16,972.8$ million for the first year.

Figure 4-2 NPV breakeven point



Source: Constructed by the author

Assuming y-to-y growth rate is 6.81% for the first five years, then followed by 3.2% from the 6th years onward (Table 4-3).

Table 4-4 Profit in 10 years

Projection Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Sales = Last Year Sales $\times$ (1+Growth Rate)	16,972.80	18,128.90	19,363.74	20,682.69	21,344.54	22,027.56	22,732.45	23,459.88	24,210.60	24,985.34
EBITDA	1,894.54	2,023.59	2,161.42	2,308.65	2,382.52	2,458.76	2,537.44	2,618.64	2,702.44	2,788.92
Depreciation expense (Total)	(267.30)	(267.30)	(267.30)	(267.30)	(267.30)	(124.63)	(124.63)	(124.63)	(124.63)	(124.63)
Building constructions	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)	(16.19)
Furniture, fixtures & leasehold improvements	(142.67)	(142.67)	(142.67)	(142.67)	(142.67)	-	-	-	-	-
Plant and machinery	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)	(108.44)
EBIT	1,627.24	1,756.28	1,894.12	2,041.34	2,115.22	2,334.13	2,412.82	2,494.01	2,577.81	2,664.29
Tax in China 25% (Chow Tai Fook, 2019, p. 236)	(406.81)	(439.07)	(473.53)	(510.34)	(528.81)	(583.53)	(603.20)	(623.50)	(644.45)	(666.07)
Profit after tax	1,220.43	1,317.21	1,420.59	1,531.01	1,586.42	1,750.60	1,809.61	1,870.51	1,933.36	1,998.22

Source: Constructed by the author

4.2.2 Cash Flow in 10 years

Cash flow from operations = EBITDA – Tax – SG&A

Table 4-5 Cash Flow in 10 years

Projection Year	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
EBITDA		1,894.54	2,023.59	2,161.42	2,308.65	2,382.52	2,458.76	2,537.44	2,618.64	2,702.44	2,788.92
Tax		(406.81)	(439.07)	(473.53)	(510.34)	(528.81)	(583.53)	(603.20)	(623.50)	(644.45)	(666.07)
Major SG&A expenses to revenue		(1,171.12)	(1,250.89)	(1,336.10)	(1,427.11)	(1,472.77)	(1,519.90)	(1,568.54)	(1,618.73)	(1,670.53)	(1,723.99)
Cashflow from Operations	(2,121.60)	316.61	333.62	351.79	371.21	380.95	355.33	365.70	376.41	387.46	398.86

Source: Constructed by the author

4.3 Four Types of Investment Appraisal

In this chapter, we will use four types of investment appraisal to evaluate and support the decision of this investment project: i) Accounting Rate of Return “ARR”, ii) Net Present Value “NPV”, iii) Payback Period “PBP”, iv) Internal Rate of Return “IRR”.

Table 4-6 Data for Investment Appraisals

Year	Cashflow in/(out)	PV of cashflow	Cumulative Cashflow	Depreciation	Profit
0	(2,121.60)	(2,121.60)	(2,121.60)		
1	316.61	294.44	(1,804.99)	(267.30)	49.30
2	333.62	288.53	(1,471.37)	(267.30)	66.32
3	351.79	282.94	(1,119.58)	(267.30)	84.49
4	371.21	277.65	(748.37)	(267.30)	103.90
5	380.95	264.98	(367.43)	(267.30)	113.64
6	355.33	229.85	(12.10)	(124.63)	230.70
7	365.70	220.00	353.60	(124.63)	241.07
8	376.41	210.58	730.01	(124.63)	251.78
9	387.46	201.58	1,117.47	(124.63)	262.83
10	398.86	192.98	1,516.32	(124.63)	274.23

ARR (straight line at zero residual value)

8%

NPV

341.94

PBP

6 Years and 1 Month

IRR

10.8%

PI

1.16

Source: Constructed by the author

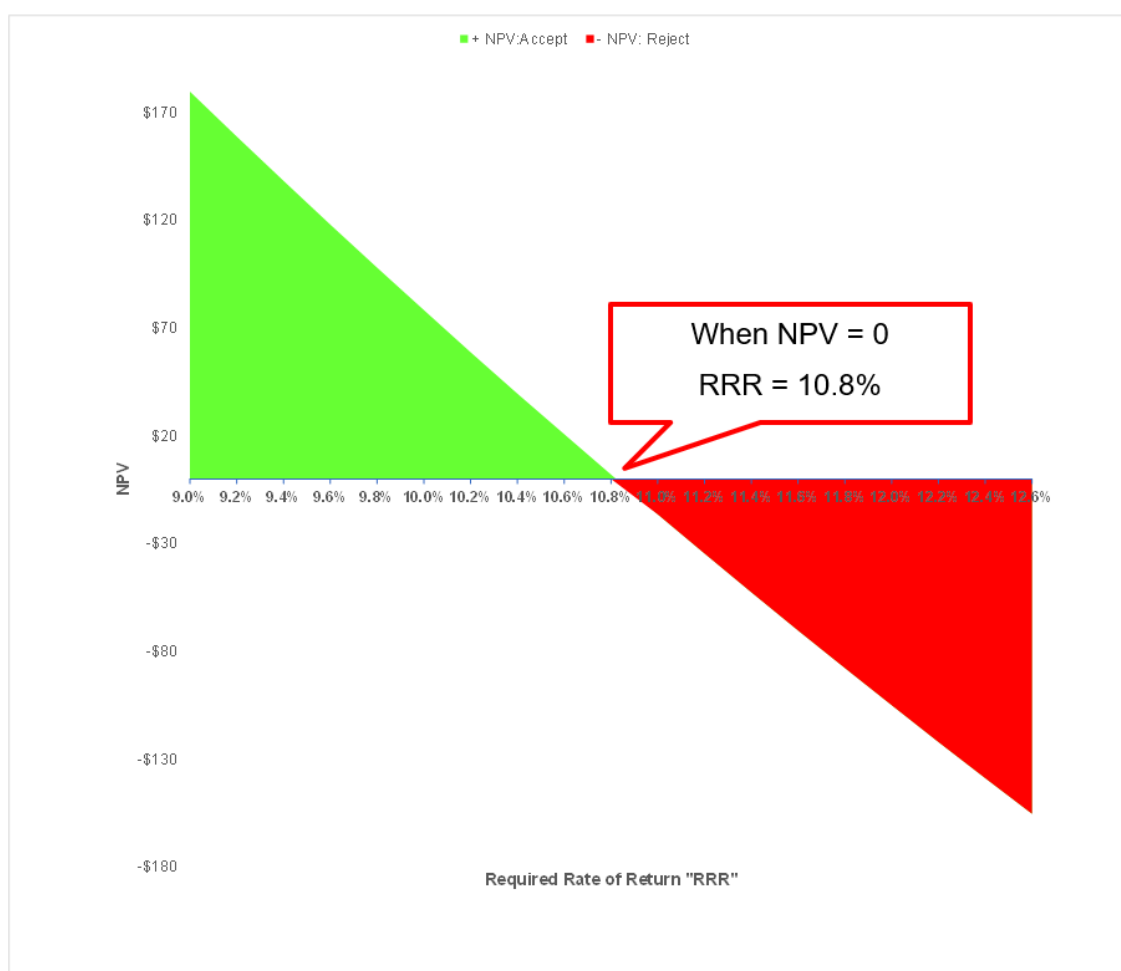
4.3.1 ARR

ARR is a methodology to show a project's accounting yield, if the result is higher than the enterprise's expectation, e.g., return on asset "ROA", then it is worth proceeding. Although the accounting yield did not take the cash flow and time value into consideration, this is a proper way to gauge an investment (Zhao and Zhang, 2019). According to Table 4-6, the ARR is 8%, higher than CTFJ's ROA in 2019 at 7.53%; this is a project with a promising return.

4.3.2 NPV

NPV illustrates the accumulated prosperity increase throughout an investment period; however, it does not appraise the actual profitability of the capital (Lajos, 2011). The NPV of this project is 341.94 (Table 4-6). If the RRR is smaller than 10.8%, then this project is worth to invest (Figure 4-3).

Figure 4-3 NPV Profile

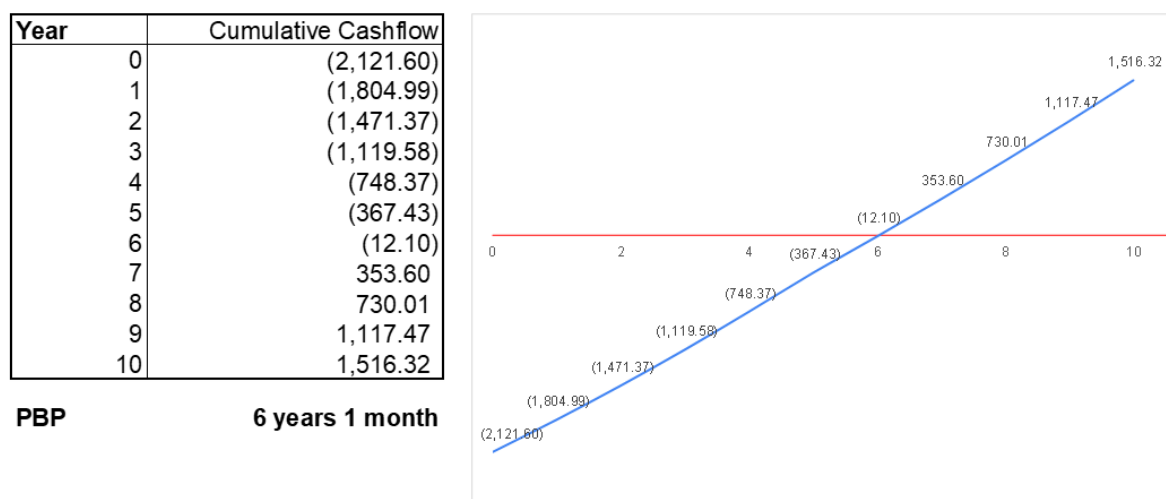


Source: Constructed by the author

4.3.3 PBP

The term is self-explanatory; it shows the timeframe that a project will be able to produce ample funds to offset the initial cost (Lajos, 2011). Our project revealed that it would need 6 years and 1 month to payback (Figure 4-4).

Figure 4-4 Payback Period



4.3.4 IRR

IRR is a way to evaluate a project if its rate of return is higher than the company's gauge, and the company shall only invest if the IRR is beyond the yardstick (Ryland, 2009, p. 140). As per the calculation from Table 4-6, and when NPV=0 (Figure 4-3), the IRR of this project is 10.8%. IRR is higher than CTFJ's ROA in 2019 as a benchmark.

4.4 Assessment of the investment project

In reviewing the above investment appraisals, all of those have a positive value and higher than CTFJ's benchmark on investment return: ARR is higher than the ROA, NPV is positive value, PBP is 6 years and 1 month, IRR is greater than the ROA. Therefore, all index support that this investment is at low risk and is valuable.

CTFJ may proceed to this project, and may consider entering a long term debt to raise the fund; Besides that, since the project will install new plant and machinery, CTFJ will need more raw materials to increase its production, where the cost of goods sold will also be increased. CTFJ may proceed to another working-capital financing, so the company will have sufficient funds to purchase gold materials for its production lines.

5. Fund-raising and working capital management

The project is expecting to cost HK2,121.6 million, which is 3.4% of CTFJ's total assets in 2019 (Table 5-1). In this chapter, we will evaluate what financing options are available for CTFJ and its pros and cons.

Table 5-1 Financing for long-term project

Financing for long-term project

	HK 'million
2019 Total Asset	62,237.10
New Project Cost	2,121.60
New Project Cost / Total Asset (%)	3.4%

Source: Constructed by the author

5.1 Financing options

There are numerous ways of financing, and we will analyze between the equity and debt financing:

i) Equity financing – it refers to a listed firm issuing new shares for the fund-raising, thus, through investors (Huang and Zhang, 2017). The advantage is that the firm does not need to pay back the money and not to involve in any monthly re-payment, then the company will have more liquid cash for other operational expenses. However, this is indeed giving up some portions of the ownership to the investor's stake. There are other cheaper options in financing.

ii) Debt financing – A research explained that although debt might be risky, it is still better than equity financing (Narayanan, 1988). Once a company repays its loan, then the relationship with the lender is ended, and the lender has no right to control over the firm. Moreover, the interest that occurs from debt financing is taxable as a business expense. However, for small or new startup firms, they might have difficulties to get a bank loan approval without loan history, but CTFJ is a well-established company which this problem does not apply.

5.2 Financing alternatives analysis

As explained, debt is cheaper than equity. Given the strong balance sheet and part of the top 4 conglomerates in Hong Kong, Chow Tai Fook/ New World Development, Sun Hung Kai, Cheung Kong and Henderson Land (Chung & Karmali, 2020), CTFJ is well supported by both international and local banks, and will be able to obtain cheaper debt financings compared to small-medium enterprises. Furthermore, raising capital from third parties may dilute the shareholdings of the existing Cheng family.

In terms of financing, CTFJ should review its financing for the:

(i) new production project (Appendix 1)

(ii) working capital financing for projected incremental production (Appendix 2)

Working capital financing for raw materials should be financed by short term financing, which can be either a revolving credit facility or trade financing facility.

While new production project is a long-term investment and should be funded by long term borrowings or equity. In considering whether to use long-term borrowings or equity, we assess the gearing ratio (net debt/equity) and leverage ratio (net debt/EBITDA), on a before and after the drawdown of a new loan, to determine whether there will be an over-gearing or over-leverage situation.

According to projected cashflows (Appendix 3) and projected balance sheet (Appendix 4), the financing ratio summary as follows:

Table 5-2 Projected gearing and leverage ratio in 10 years

	Year 0 (As of Mar-19)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Total Debt / Equity	0.58	0.77	0.77	0.77	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Net Debt / Equity	0.33	0.67	0.53	0.38	0.20	(0.01)	(0.23)	(0.46)	(0.71)	(0.97)	(1.24)
Total Debt/ EBITDA	2.38	2.96	2.78	2.62	2.47	2.31	2.24	2.17	2.11	2.04	1.98
Net Debt / EBITDA	1.37	2.58	1.93	1.28	0.64	(0.03)	(0.67)	(1.29)	(1.92)	(2.53)	(3.13)

Source: Constructed by the author

Net gearing will increase from 0.33X to 0.67X in Year 1, before gradually reducing over the next 10 years. Net leverage will increase from 1.37X to 2.58X in Year 1, before gradually reducing over the next 10 years (Table 5-2). Given the above, CTFJ need not consider raising equity for its new funding needs.

5.3 Financing recommendation

For the long-term project, CTFJ shall take a long term loan, while the 3-month HIBOR is 0.45% (Figure 5-1), and existing bank borrowings ranged from 0.6%-0.9% over HIBOR (Chow Tai Fook, 2019, p. 250).

Figure 5-1 HIBOR

HKAB HKD Interest Settlement Rates	
Rates as at 11.15 a.m. Hong Kong Time on 31/7/2020 .	
Maturity	HKD Interest Settlement Rate
Overnight	0.05792
1 Week	0.12714
2 Weeks	0.16696
1 Month	0.25393
2 Months	0.35429
3 Months	0.45119
6 Months	0.65560
12 Months	0.96696

Source: (The Hong Kong Association of Banks, 2020)

Assuming the margin is 1.25% then the total interest rate is only at 1.7%

Table 5-3 Interest rate

3 month HIBOR	0.45%
Margin	1.25%
Total Interest Rate	1.70%

Source: Constructed by the author

With the low-interest rate, CTFJ may consider financing 80% of the project cost and the rest to pay by current equity (Table 5-4).

Table 5-4 Long-term financing 80% of project cost

Assume finance 80% of project cost	HK 'million
Equity (Cash Payment)	424.32
Financing Amount (10-year loan repayable in 10 equal annual instalments)	1,697.28

Year	0 (As of Mar-19)	1	2	3	4	5	6	7	8	9	10
Loan Outstanding at Year-Start		1,697.3	1,527.6	1,357.8	1,188.1	1,018.4	848.6	678.9	509.2	339.5	169.7
Loan Repayment		(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)
Loan Outstanding at Year-End		1,527.6	1,357.8	1,188.1	1,018.4	848.6	678.9	509.2	339.5	169.7	(0.0)
Interest Expense		(27.4)	(24.5)	(21.7)	(18.8)	(15.9)	(13.0)	(10.1)	(7.2)	(4.3)	(1.4)

Source: Constructed by the author

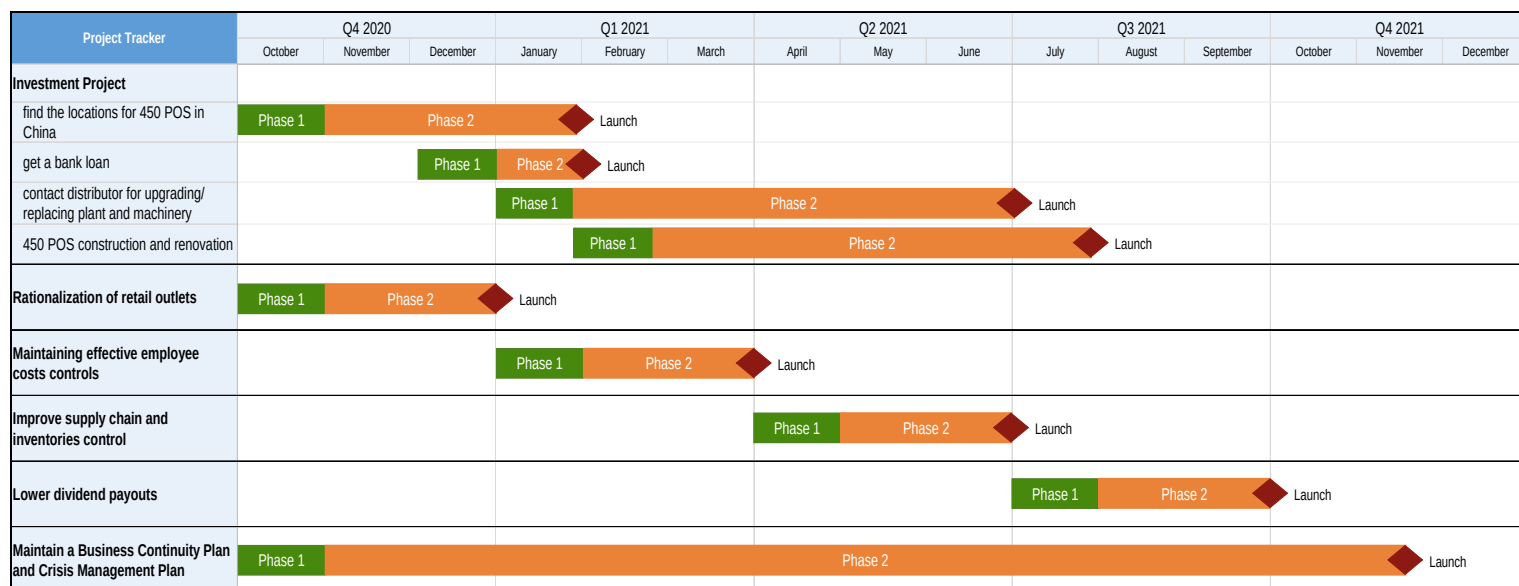
6. Conclusion and recommendation

CTFJ is financially healthy and has a growing potential compared to its peer in Hong Kong. The company is compliant with the corporate governance code, and it is transparent to its shareholders. An investment project is suggested to CTFJ and showing a good return in revenue.

6.1 Suggestions to CTFJ

Apart from the investment project proposed in Chapter 4, below are other prioritized suggestions that CTFJ may proceed in the coming quarters, that may improve the overall performance.

Figure 6-1 Gantt Project Chart



Source: Constructed by the author

Q4 2020 - Rationalization of retail outlets, including regular review of its leases during down cycles. CTFJ has experienced steady growth in its China market, and there is growth potential and higher yields in 3rd and 4th tier cities in China compared to mature markets in Hong Kong and Macau with escalating rental costs uptill Dec-2019. CTFJ should constantly review the lease contracts vis-a-vis the shop's monthly performance. For instance, there are three retail outlets in sky-high rental Central Hong Kong, where these shops are located within proximity of 100 meters (Figure 6-2 CTFJ's retail outlets in Central Hong Kong Figure 6-2). CTFJ can leverage on its strong market position to negotiate for better lease terms such that it has more flexibility in managing its retail outlets in the same region during down cycles.

Figure 6-2 CTFJ's retail outlets in Central Hong Kong



Source: (Google Maps, 2020)

Separately, CTFJ can expand on its online network where rental of premises is not required. Online networks can increase their coverage to internet-savvy clients and to cater to customers when travel is inaccessible. Alternatively, it can strengthen its franchise model where the franchisees cover rentals.

Q1 2021 - Maintaining effective employee costs controls. General and distribution costs represent 13.6% and 13.9% of total revenue in 2019 and 2018, respectively (Chow Tai Fook, 2019, p. 190).

Table 6-1 CTFJ's General and distribution costs

Financial Year End (HK'million)	FYEMar-18	FYEMar-19
Total Revenue	59,156,400	66,660,900
Selling and distribution costs	(8,238,700)	(9,037,800)
	13.9%	13.6%

Source: Constructed by the author

Apart from leases that contributed 2.3% (Chow Tai Fook, 2019, p. 68) of the 13.6% mentioned above, employee costs contributed to a higher 6.9% (Chow Tai Fook, 2019, p. 68). Hence, CTFJ must maintain a robust employee cost structure. Whilst relocating certain stores from Hong Kong & Macau to 3rd & 4th tier Chinese cities will indirectly cut down on its staff costs per store, it is crucial for the CTFJ to adopt flexibility in staff management such as incorporating a percentage of salaries for downward adjustments during down-cycles or contracts on a renewal basis.

Q2 2021 - Improving its supply chain and inventories control. Jewellery retailers typically have high cash cycles, mainly due to high inventories-days on hand hovering between 294 to 300 days from 2017 and 2019 (Table 2-2). The above figures may increase during retail down cycles. CTFJ should continuously review its supply chain to maintain its inventories level, and if need beholds global/region-specific events to move sales.

Q3 2021 - Lowering its dividend payouts for higher retained earnings. Over the last 3 years, dividend payouts (Chow Tai Fook, 2019, p. 77) has been higher than its net profits (Chow Tai Fook, 2019, p. 195), which led to stagnated equity levels despite strong profitability. Strong dividend payouts may improve the share price; however, it will lead

to slower equity growth. Indirectly, the CTFJ will have to rely more on debt or equity financing for future expansions instead of relying on its equity.

Table 6-2 CTFJ's dividend payouts

Financial Year End (HK'000)	Chow Tai Fook		
	Mar-17	Mar-18	Mar-19
Net cash generated from operations	10,022,400	3,852,700	7,153,500
Dividends paid	(6,080,600)	(4,260,300)	(5,147,500)

Source: Constructed by the author

On-going Q4 2020 to Q4 2021 - Maintain a robust Business Continuity Plan and Crisis Management Plan. To ensure efficient operations during unforeseeable situations, e.g., massive earthquakes and flooding in China that have impacted to 27 provinces in 2019 (Lee, 2020), or prolonged protests and health crisis in Hong Kong which have worried Paul Chan, Financial Secretary of HK, and forewarned for an economy's burden (Choy, 2020).

Appendix 1: Financing calculation for long-term project

Financing for long-term project

	HK 'million
2019 Total Asset	62,237.10
New Project Cost	2,121.60
New Project Cost / Total Asset (%)	3.4%

Assume finance 80% of project cost	HK 'million
Equity (Cash Payment)	424.32
Financing Amount (10-year loan repayable in 10 equal annual instalments)	1,697.28

3 month HIBOR	0.45%
Margin	1.25%
Total Interest Rate	1.70%

Remark: (The Hong Kong Association of Banks, 2020)

Year	0 (As of Mar-19)	1	2	3	4	5	6	7	8	9	10
Loan Outstanding at Year-Start		1,697.3	1,527.6	1,357.8	1,188.1	1,018.4	848.6	678.9	509.2	339.5	169.7
Loan Repayment		(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)	(169.7)
Loan Outstanding at Year-End		1,527.6	1,357.8	1,188.1	1,018.4	848.6	678.9	509.2	339.5	169.7	(0.0)
Interest Expense		(27.4)	(24.5)	(21.7)	(18.8)	(15.9)	(13.0)	(10.1)	(7.2)	(4.3)	(1.4)

Appendix 2: Working Capital Financing

Working Capital Financing

1 month HIBOR	0.25%	Remark: (The Hong Kong Association of Banks, 2020)
Margin for short term financing	0.75%	Remark: (Chow Tai Fook, 2019, pp.250)
Total Interest	1.00%	

Cash Cycle (Assume cash cycle remains the same as Mar-19)	255 days
Cost of Goods Sold Margin as of Mar-19	-72.1%

Year	0 (As of Mar-19)	1	2	3	4	5	6	7	8	9	10
Incremental revenue from new project		16,973	18,129	19,364	20,683	21,345	22,028	22,732	23,460	24,211	24,985
Cost of Goods Sold for incremental revenue (Raw Materials)		(12,237)	(13,070)	(13,960)	(14,911)	(15,388)	(15,881)	(16,389)	(16,913)	(17,455)	(18,013)
Short Term Working Capital Required based on Cash Cycle to finance cost of goods		(8,552)	(9,134)	(9,757)	(10,421)	(10,755)	(11,099)	(11,454)	(11,821)	(12,199)	(12,589)
Cash required to finance working capital needs (Assume 50% financing)		(4,276)	(4,567)	(4,878)	(5,211)	(5,377)	(5,549)	(5,727)	(5,910)	(6,099)	(6,295)
Bank Financing Required (50% of Working capital requirement)		(4,276)	(4,567)	(4,878)	(5,211)	(5,377)	(5,549)	(5,727)	(5,910)	(6,099)	(6,295)
Interest Expense		(43)	(46)	(49)	(52)	(54)	(56)	(57)	(59)	(61)	(63)

Appendix 3: Projected Cashflows

Projected Cashflows											
Year	0 (As of Mar-19)	1	2	3	4	5	6	7	8	9	10
EBITDA from existing operations (Assume growth rate as per Table 4-3)	7,606	8,124	8,677	9,269	9,900	10,574	10,913	11,262	11,622	11,994	12,378
EBITDA from new operations		1,895	2,024	2,161	2,309	2,383	2,459	2,537	2,619	2,702	2,789
Working Capital Requirements		(4,276)	(291)	(311)	(332)	(167)	(172)	(178)	(183)	(189)	(195)
Net Cashflows from operations	7,606	5,743	10,410	11,119	11,876	12,790	13,199	13,622	14,057	14,507	14,972
Capex for Long Term Project		(2,122)									
Bank Borrowings for Long Term Project (New)		1,697									
Bank Borrowings for Working Capital Financing (New)		(4,276)	(291)	(311)	(332)	(167)	(172)	(178)	(183)	(189)	(195)
Equity Financing		-									
Less Existing Interest Expense (assume unchanged)	(370)	(370)	(370)	(370)	(370)	(370)	(370)	(370)	(370)	(370)	(370)
Less Interest Expense from New Loans (Working Capital + LT Term)		(70)	(70)	(71)	(71)	(70)	(69)	(67)	(66)	(65)	(65)
Less tax expense (assume no change to existing operations)	(1,668)	(2,075)	(2,107)	(2,142)	(2,178)	(2,197)	(2,252)	(2,271)	(2,292)	(2,312)	(2,334)
Loan Repayment for Long Term Debt (Working capital debt will be revolving)		(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)
Dividends Paid (assume 50% of net profit)	(5,163)	(2,952)	(3,001)	(3,052)	(3,108)	(3,135)	(3,217)	(3,247)	(3,277)	(3,309)	(3,341)
Net Cash Generated		(4,595)	4,401	5,003	5,647	6,681	6,950	7,318	7,699	8,092	8,497
Starting Cash Position		7,641	3,046	7,446	12,449	18,097	24,778	31,728	39,046	46,745	54,837
Ending Cash Position	7,641	3,046	7,446	12,449	18,097	24,778	31,728	39,046	46,745	54,837	63,333

Appendix 4: Projected Balance Sheet

Projected Balance Sheet											
Year	0 (As of Mar-19)	1	2	3	4	5	6	7	8	9	10
Existing Bank Borrowings (Assume unchanged)	18,068	18,068	18,068	18,068	18,068	18,068	18,068	18,068	18,068	18,068	18,068
New Short Term Debt		4,276	4,567	4,878	5,211	5,377	5,549	5,727	5,910	6,099	6,295
New Long Term Debt		1,697	1,528	1,358	1,188	1,018	849	679	509	339	170
Total Cash	7,641	3,046	7,446	12,449	18,097	24,778	31,728	39,046	46,745	54,837	63,333
Equity (Assume no change)	31,403	31,403	31,403	31,403	31,403	31,403	31,403	31,403	31,403	31,403	31,403

Appendix 5: Academic Reference

- Arjoon, S. (2005) 'Corporate Governance: An Ethical Perspective', *Journal of Business Ethics*, 61(4), pp. 343-352. DOI: 10.1007/s10551-005-7888-5
- Batchelor, T. (2018) 'Corporate Bankruptcy: Testing the Efficacy of the Altman Z-Score', *International Research Journal of Applied Finance*, 9(9), pp. 404-414. Available at: <https://nebula.wsimg.com/65384c67d85fb86c885b3b2e9ebf7e87?AccessKeyId=A83663472B839ECDD54B&disposition=0&alloworigin=1> (Accessed: 17 July 2020).
- Huang, Y. and Zhang, M. (2017) 'Research on Evaluation of Equity Financing Efficiency of Listed Companies in Strategic Emerging Industries' *Journal of risk analysis and crisis response*, 7(4), pp. 189-213. DOI: 10.2991/jrarc.2017.7.4.2
- Kliestik, T. et al. (2020) 'Remaining Financially Healthy and Competitive: The Role of Financial Predictors' *Journal of Competitiveness*, 12(1), pp. 74-92. DOI: 10.7441/joc.2020.01.05
- Lajos, J. (2011) 'Net present value versus internal rate of return' *Economics & sociology*, 4(1), pp. 46-53. DOI: 10.14254/2071-789X.2011/4-1/5
- Little, P. L., Little, B. L. and Coffee, D. (2009) 'The Du Pont model: evaluating alternative strategies in the retail industry' *Academy of Strategic Management Journal*, Volume 8, pp. 71-80.
- Muradoglu, G., Bakke, M. and Kvernes, G. (2005) 'An investment strategy based on gearing ratio' *Applied Economics Letters*, 12(13), pp. 801-804. DOI: 10.1080/13504850500365780
- Narayanan, M.P. (1988). 'Debt versus Equity under Asymmetric Information' *Journal of Financial & Quantitative Analysis*, 23(1), pp. 39-52. DOI: 10.2307/2331023
- Platt, H.D., Platt, M.B. and Chen, G. (1995) 'Sustainable growth rate of firms in financial distress' *Journal of Economics and Finance*, 19(2), pp. 147-151. DOI: 10.1007/BF02920515
- Ryland, P. (2009) *Investment an A-Z guide*. London: Profile Books Ltd.
- Yazdanfar, D. and Öhman, P. (2014) 'The impact of cash conversion cycle on firm profitability' *International Journal of Managerial Finance*, 10(4), pp. 442-452. DOI: 10.1108/IJMF-12-2013-0137
- Zhao, R. & Zhang, X. (2019) 'Analysis of Investment Decisions of SMEs' *Advances in Economics, Business and Management Research*, Volume 82. DOI: 10.2991/icmete-19.2019.102

Appendix 6: Bibliography

AASTOCKS (2020) *Dividend Policy Trend*. Available at:

<http://www.aastocks.com/en/stocks/analysis/dividend.aspx?symbol=01929> (Accessed: 17 July 2020).

Brown, T. (2020). *China after COVID-19: how are consumers returning to shopping venues?*. Available at: <https://retailinasia.com/in-telligence/china-after-covid-19-how-are-consumers-returning-to-shopping-venues/> (Accessed: 19 July 2020).

Chow Tai Fook (2011) *Chow Tai Fook IPO Prospectus*. Available at:

<https://www1.hkexnews.hk/listedco/listconews/sehk/2011/1205/ltn20111205046.pdf> (Accessed: 18 July 2020).

Chow Tai Fook (2017) *Annual Report 2017*, Available at: https://ir.ctfjewellerygroup.com/ar2017_en.pdf (Accessed: 18 July 2020).

Chow Tai Fook (2018) *Annual Report 2018*, Available at: https://ir.ctfjewellerygroup.com/ar2018_en.pdf (Accessed: 18 July 2020).

Chow Tai Fook (2019) *Annual Report 2019*, Available at: https://ir.ctfjewellerygroup.com/ar2019_en.pdf (Accessed: 18 July 2020).

Chow Tai Fook (2019b) *Sustainability Report*. Available at:

<https://www.ctfjewellerygroup.com/file/Sustainability/reports/csr2019.pdf> (Accessed: 19 July 2020).

Choy, G. (2020) 'Hong Kong third wave: Financial Secretary Paul Chan warns government handouts won't last, even as Covid-19 piles more pressure on economy' *South China Morning Post*, 2nd August. Available at: <https://www.scmp.com/news/hong-kong/hong-kong-economy/article/3095700/hong-kong-third-wave-financial-secretary-paul-chan> (Accessed: 2 August 2020).

Google Maps (2020) *Chow Tai Fook* [Map]. Available at:

<https://www.google.com/maps/search/chow+tai+fook/@22.2821906,114.156007,19z/data=!4m8!2m7!3m6!1schow+tai+fook!2sCentral!3s0x34040064a31dd1bd:0x5007a73bdecdb552!4m2!1d114.1587983!2d22.2799907> (Accessed: 1 August 2020).

Chung, G. and Karmali, N. (2020) 'Hong Kong's Richest 2020' *Forbes*, 6th February. Available at:

<https://www.forbes.com/hong-kong-billionaires/#153ae2c13e46> (Accessed: 12 July 2020).

HKEx (2020a) *Appendix 14 Corporate Governance Code and Corporate Governance Report*. Available at: https://en-rules.hkex.com.hk/sites/default/files/net_file_store/new_rulebooks/h/k/HKEX4476_3828_VER10.pdf (Accessed: 19 July 2020).

HKEx (2020b) *Appendix 10 Model Code for Securities Transactions by Directors of Listed Issuers*. Available at: https://en-rules.hkex.com.hk/sites/default/files/net_file_store/new_rulebooks/h/k/HKEX4476_3785_VER10.pdf (Accessed: 19 July 2020).

HKTDC Research (2019) *China's Jewellery Market*. Available at: <https://hkmb.hktdc.com/en/1X002MMK/hktdc-research/China%E2%80%99s-Jewellery-Market> (Accessed: 18 July 2020).

Hong Kong e-Legislation (1996) *Cap. 486 Personal Data (Privacy) Ordinance*. Available at: <https://www.elegislation.gov.hk/hk/cap486> (Accessed: 19 July 2020).

Hong Kong Tourism Board (2019) *Total Visitor Arrivals, Hong Kong*. Available at: https://securepartnernet.hktb.com/en/research_statistics/tourism_statistics_database/index.html (Accessed: 18 July 2020).

Kothari, S. (2020) 'The impact of COVID-19 on the gems and jewellery industry', *SMB Story*, 6th June 2020. Available at: <https://yourstory.com/smbstory/covid-19-impact-gems-jewellery-industry> (Accessed: 19 July 2020).

Lee, A. (2020). 'China's economic recovery under threat from fresh coronavirus outbreaks and floods, analysts say', *South China Morning Post*, 2nd August. Available at: <https://www.scmp.com/economy/china-economy/article/3095458/chinas-economic-recovery-under-threat-fresh-coronavirus> (Accessed: 2 August 2020).

Luk Fook (2017) *Annual Report 2017*. Available at: https://www.lukfook.com/wp-content/uploads/2017/07/ew_00590ar-29062017.pdf (Accessed: 1 July 2020).

Luk Fook (2019) *Annual Report 2018*. Available at: https://www.lukfook.com/wp-content/uploads/2018/07/ew_00590ar-27062018.pdf (Accessed: 1 July 2020).

Luk Fook (2019) *Annual Report 2019*. Available at: https://www.lukfook.com/wp-content/uploads/2019/07/cw_00590ar-27062019.pdf (Accessed: 1 July 2020).

Magramo, K. (2020) 'Hong Kong's Chow Tai Fook, world's second-largest jewellery retailer, kicks off mainland China expansion with acquisition of gems maker Enzo' *South China Morning Post*, 18th January. Available at: <https://www.scmp.com/business/article/3046618/hong-kongs-chow-tai-fook-worlds-second-largest-jewellery-retailer-kicks> (Accessed: 1 July 2020).

National Bureau of Statistics of China (2020) *Preliminary Accounting Results of GDP for the Second Quarter and the First Half Year of 2020*. Available at: http://www.stats.gov.cn/english/PressRelease/202007/t20200717_1776596.html (Accessed: 1 August 2020).

Reuters (2011) *Chow Tai Fook says prices HK IPO at HK\$15/share*. Available at: <https://www.reuters.com/article/chowtaifook-ipo-idUSL3E7ND4G020111213> (Accessed: 12 July 2020).

Reuters (2020) *UPDATE 1-HK jeweller Chow Tai Fook posts 36.6% drop in profit, eyes expansion in China*. Available at: <https://www.reuters.com/article/ctf-group-results/update-1-hk-jeweller-chow-tai-fook-posts-36-6-drop-in-profit-eyes-expansion-in-china-idUSL4N2DO23M> (Accessed: 28 July 2020).

The Hong Kong Association of Banks (2020) *HKAB HKD Interest Settlement Rates*. Available at: <https://www.hkab.org.hk/DisplayInterestSettlementRatesAction.do?lang=en> (Accessed: 31 July 2020).

Tse Sui Luen (2017) *Annual Report 2017*. Available at: http://doc.irasia.com/listco/hk/tsesuiluen/annual/ar176531-e00417_annualreport2016_17.pdf (Accessed: 1 July 2020).

Tse Sui Luen (2018) *Annual Report 2018*. Available at: https://doc.irasia.com/listco/hk/tsesuiluen/annual/ar197701-e00417_annualreport2018.pdf (Accessed: 1 July 2020).

Tse Sui Luen (2019) *Annual Report 2019*. Available at: https://doc.irasia.com/listco/hk/tsesuiluen/annual/ar215560-e00417_annualreport2018_19.pdf (Accessed: 1 July 2020).

Yiu, E. (2015) 'When it comes to jewellery, Chinese believe local companies are best' *South China Morning Post*, 2nd June. Available at: <https://www.scmp.com/business/companies/article/1814717/when-it-comes-jewellery-chinese-believe-local-companies-are-best> (Accessed: 1 July 2020).