



University of Wales
Trinity Saint David

CONSULTANCY MANAGEMENT

PROJECT INITIATION DOCUMENT (PID)

2018

A Study of TK Group (Holdings) Limited Product Strategy Development

Students Name: Kwok Man Kam, Ken

Student Id: 1812206

Masters: Consultancy Management

Project Initiation Document (PID)

1. Your name:	Ken Kwok
2. Organisation name:	Peng Fei Consultant Co. Ltd.
3. Your job title/role:	Consultant
4. How long have you been in this job/role?	5 Years
5. Outline main purpose of your job/role:	Provide consultant service - Build new management concepts and methods - Develop the Business Strategy Planning - Collect and analysis data - Build the management frame work - Design and implement management system (ERP, CRM, Knowledge management) Design and conduct training
6. List the main responsibilities within your job/role:	- Report to Senior Consultant - Lead 3 Associated Consultants - Project negotiation - Conduct project - Training
7. Client organisation:	TK GROUP (HOLDINGS) LIMITED
8.	
9. Type of business:	Mold Fabrication, Plastic Components Injection Production, Secondary Processing Services and Final Assembly
10. No of employees in client organisation:	3,726 full-time employees and 520 workers (Dispatched from third party staffing companies)
11. Who is the person mainly supporting your project (Sponsor)? State their job title and their relationship to you:	Name: Mr. Lee Leung Yiu Job title: Executive Director of TK Group Relationship to you: Client
12. Aim of project:	
Overall study and understand how TK Group's Development Strategy being successful and continuously growing in last 5 years.	
13. Objectives of project:	
- Understood the market strategy on Plastic Components Manufacturing (with different industries) to have revenue growth 60% in 5 years (2013-2017) - Understood why revenue growth 70% in 5 years (2013 to 2017) - Understood why net profit increase 60% in 5 years (2013 to 2017) To enhance business grow and maximize profit	

14. What is the business case for considering undertaking the project? • Sustain the revenue growth for shareholder • Maximize shareholder value • Grow the market share
15. Identify the risks associated with the project and how these could be overcome. • Quality risk - Not be able to provide in deep to fulfil objectives • Time Risk - Short lead-time for data collection and analysis Use project management skill to well plan the key tasks and set the milestones, track closely to ensure the project complete in time with quality output.
16. List the information and resources you will need to make your project a success. State why such are needed. These may include, people, time, cash, technology, data. Identify any constraints that you may encounter and explain how you would overcome these. 1. TK GROUP (HOLDINGS) LIMITED Annual Report 2013 2. TK GROUP (HOLDINGS) LIMITED Annual Report 2014 3. TK GROUP (HOLDINGS) LIMITED Annual Report 2015 4. TK GROUP (HOLDINGS) LIMITED Annual Report 2016 5. TK GROUP (HOLDINGS) LIMITED Annual Report 2017 6. TK GROUP (HOLDINGS) LIMITED Interim Result 2018 7. Smart Home Market Analysis By Applications (Security, Lighting, Entertainment, Energy Management, And HVAC) And Segment Forecasts from 2012 to 2020 8. U.S. Hi-Tech Medical Devices Market Size, by Product, 2014-2025 (USD Billion) 9. U.S. CGM devices market size, by components, 2013 -2014 (USD Million) 10. 2017 Automotive Trends 11. Projected global retail revenue from smart wearable devices in 2014 and 2019 (in billion U.S. dollars) 12. Global home appliance exports and imports in 2017 More All the annual reports are need for understanding the company finance performance, products mix and sales contribution. Other data is used to support the market strategies. Key constrain is not able to obtain the detail product data which might caused the analysis is not deep enough.
17. State what method you intend to use to collect your primary data. N/A
18. State from whom you plan to collect primary date and detail any challenges you anticipate. N/A

19. State from where you plan to collect secondary data. This means providing an early list of alphabetised websites and a bibliography that details (using Harvard method) the journals, magazines, textbooks and websites you intend to use.

Website addresses:

<http://tkmold.com/index.aspx> (Accessed: 29th November 2018)

http://pdf.dfcfw.com/pdf/H2_AN201404160005445123_01.PDF (Accessed: 29th November 2018)

http://pdf.dfcfw.com/pdf/H2_AN201504200009272643_01.pdf (Accessed: 29th November 2018)

http://pdf.dfcfw.com/pdf/H2_AN201604120014327014_01.pdf (Accessed: 29th November 2018)

http://pdf.dfcfw.com/pdf/H2_AN201704060479539612_1.pdf (Accessed: 29th November 2018)

http://pdf.dfcfw.com/pdf/H2_AN201804111121335672_1.pdf (Accessed: 30th November 2018)

<http://tkmold.com/uploadfiles/2018/11/201811091045124512.pdf> (Accessed: 30th November 2018)

<https://www.strategyand.pwc.com/trend/2017-automotive-industry-trends> (Accessed: 30th November 2018)

<https://www.grandviewresearch.com/industry-analysis/smart-homes-industry> (Accessed: 30th November 2018)

<https://www.statista.com/statistics/259655/wearable-device-market-value-forecast/> (Accessed: 30th November 2018)

<https://www.grandviewresearch.com/industry-analysis/hi-tech-medical-devices-market> (Accessed: 7th December 2018)

<https://www.grandviewresearch.com/industry-analysis/continuous-glucose-monitoring-market> (Accessed: 7th December 2018)

<http://tkmold.com/uploadfiles/2018/12/201812120832113211.pdf> (Accessed: 7th December 2018)

<http://en.cheaa.org/contents/476/8040.html> (Accessed: 7th December 2018)

Books (on topic area):

13. TK GROUP (HOLDINGS) LIMITED Annual Report 2013
14. TK GROUP (HOLDINGS) LIMITED Annual Report 2014
15. TK GROUP (HOLDINGS) LIMITED Annual Report 2015
16. TK GROUP (HOLDINGS) LIMITED Annual Report 2016
17. TK GROUP (HOLDINGS) LIMITED Annual Report 2017

Books (on research methodology):

Journals:

20. Design a time plan for the lifetime of the project.

Task	Date to be completed
Initial meeting - Briefing the project (define project scope, project objective, deliverable, due date, team member) - reports	Week No. #1847
Collect initial secondary data... - Last 5 years annual reports including latest 2018 interim report - Quick review the product portfolios data from the annual report - Base on the products portfolios to collect more relevant market data	Week No. #1849
Analysis Data - 5 years financial trend - 5 years revenue – by business segments - 5 years product portfolios sales - Products analysis by using BCG Matrix, etc...	Week No. #1850
Document Data... - Group together the analysis results - Explain the data to align the objectives - Document the conclusions	Week No. #1851
Schedule a quick alignment meeting: - Prepare initial study report with conclusions and recommendations - On to one meeting with Executive Director - Mr. Lee Leung Yiu to get his approval and comments	Week No. #1852
Present the study report: - Complete the final study report in formal format - Print the presentation copies - Schedule the presentation meeting to Customer's team *Answer all the questions with intention to lead for next consulting opportunities	Week No. #1901

LEVEL 7 ASSESSMENT SPECIFICATION

Student name:	Kwok Man Kam, Ken	Student ID number:	1812206
Programme:	MBA		
Module:	Consultancy Management		
Module code:	SBMA7136	<i>Contribution to Overall Module Assessment (%)</i>	
Lecturer:	Dr. Joe Leung	Internal Verifier:	
Assignment Title:	Assignment 1	Word count (or equivalent):	
Submission deadline:	7 January 2019	Return date of provisional marks & written feedback:	

A Study of TK Group (Holdings) Limited Product Strategy Development

Students Name: Kwok Man Kam, Ken

Student Id: 1812206

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1. Introduction

TK Group (Holdings) Limited (TK Group or TK) is a global leading one-stop plastics solutions provider, dedicated to the researching development and manufacturing plastic molds and parts in Smart phone, Smart home, Healthcare, Packaging, Medical and Precise electronics.etc.

Established in 1983, Hong Kong. TK Group now is a well-known enterprise in plastic injection and molds making after 35 years of development. TK Group was successfully listed on the main board of Hong Kong Stock Exchange in 2013, stock code is 02283. TK`s plastic mold business revenue was ranking No 1 in the MT3 level suppliers in China. TK currently owned 3 production facilities, the gross floor area over 180, 000 square meters. Headquarters is located in Shenzhen, other 2 factories in Suzhou and Germany. The company mission is keeping our customers successful. It takes TK an excellent foundation and sustainable development, leading us to be a pioneer in the precise injection and smart manufacturing, providing customers the better services globally.

2. Scope

This project is to overall study and understands how TK Group`s Development Strategy being successful and continuously growing in last 5 years.

- Understood why revenue growth 70% in 5 years (2013 to 2017)
- Understood why net profit increase 60% in 5 years (2013 to 2017)
- Understood the market strategy on Plastic Components Manufacturing (with different industries) to have revenue growth 60% in 5 years (2013-2017)

To enhance business grow and maximize profit for shareholder.

3. Analysis

3.1. Financial Review

FIVE YEAR FINANCIAL SUMMARY	Year ended 31 December				
	2013 Year HK\$'000	2014 Year HK\$'000	2015 Year HK\$'000	2016 Year HK\$'000	2017 Year HK\$'000
Revenue	1,197,852	1,338,920	1,606,205	1,626,611	1,860,900
Net profit for the Year attributable to the owners of the Company	121,348	153,923	187,088	205,698	301,833
Gross profit margin	27.7%	27.3%	26.1%	28.1%	33.7%
Net profit margin	10.1%	11.5%	11.6%	12.6%	16.2%
Revenue increase vs previous year	9.3%	11.8%	20.0%	1.3%	14.4%

Table 1 TK Five Year Financial Summary, 2013-2017

Source: TK Group (Holdings) Limited (2017) *Annual Report 2017*. TK Group.

Above Table 1 has shown the five year financial summary from year 2013 through year 2017. It indicated the revenue of year 2017 was HK\$2.162 billion, compared to year 2016 HK\$1.832 billion has 14.4% increase. Gross profit margin was increased 5.6% in 2017. The net profit margin is increase 3.6% in 2017.

Gross profit analysis

Sales cost analysis

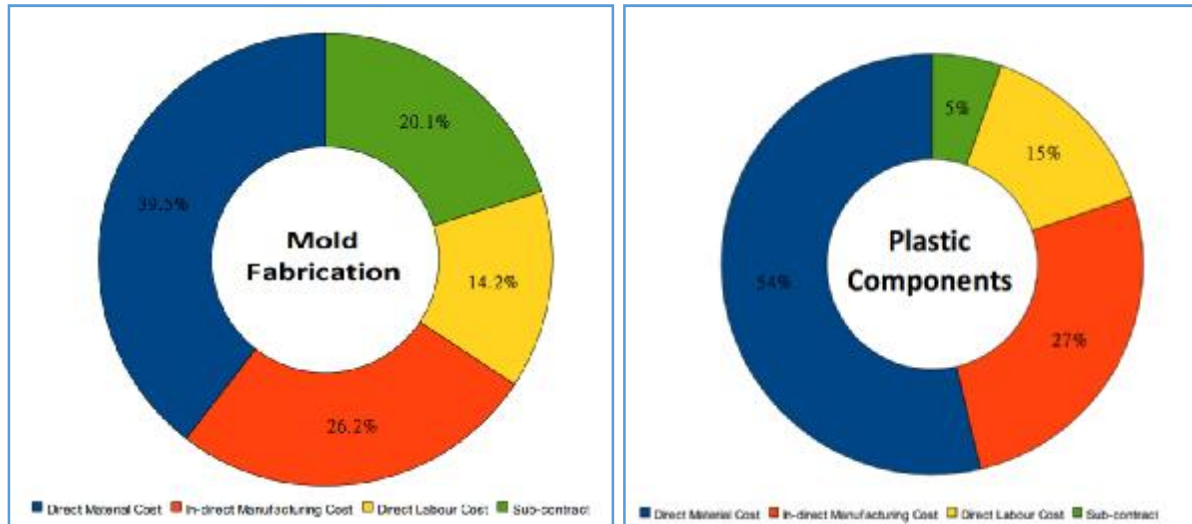


Figure1. Sales Cost , 2018

Source: TK Group (Holdings) Limited (2018) *Interim Result 2018*.

Sales cost is mainly contributed in four categories. Among four there are two key contributors:

- Direct material cost:
 - o Cost is driven by market, like crude oil price up and down will causing plastic resin price change
 - o Can control the material waste during manufacturing
- Direct labour cost:
 - o Minimum Wages and Working hours limitation from Government
 - o Labour efficiency
 - o Extra OT premium cost due to labours shortage

It can improve the gross profit margin by reduce the material waste and improve the labour efficiency during manufacturing.

Overall gross profit margin was 33.7% increased 5.6% in year 2017 compared to 28.1% in year 2016. The revenue was increase 14.4% in year 2017 Vs year 2016. Sales increase improves gross profit promotion.

Net profit analysis

In year 2017 the net profit margin was 16.2% which is the highest net profit margin rate from 2013-2017. Compared 12.6% in year 2016, it was increase 3.5%, equal to 27.8% signification improvement on net profit margin.

3.2 Business review

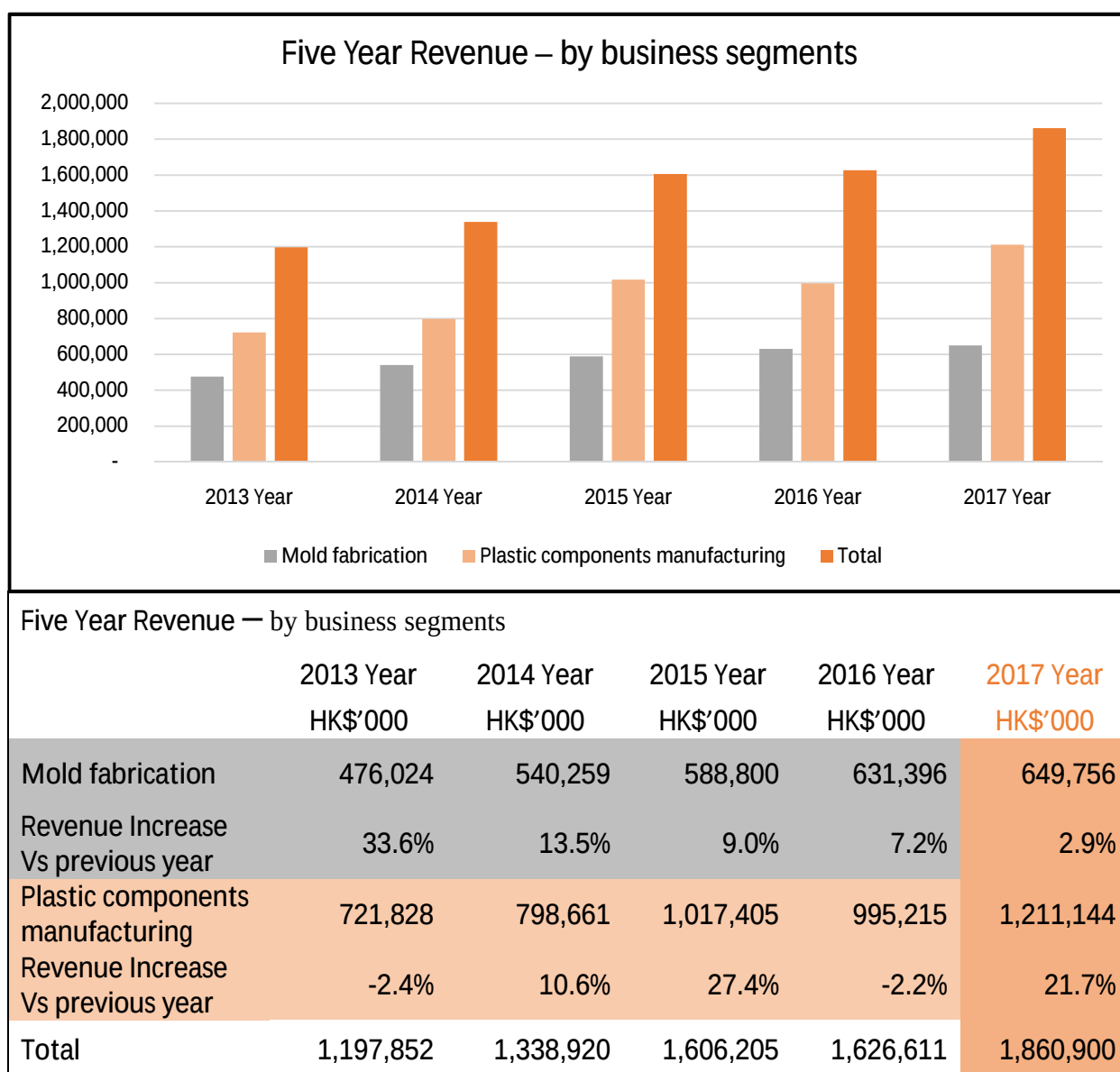


Figure 2 Five Year Revenue by Business Segments, 2013-2017

Source: TK Group (Holdings) Limited (2017) *Annual Report 2017*. TK Group.

Business divided into two segments, Mold fabrication and Plastic components manufacturing.

The total income from mold fabrication and plastic components manufacturing was HK\$1860.9 millions in year 2017, it was increased 14.4% compared to

year 2016. Mold fabrication contributed 34.9% and plastic components fabrication contributed 65.1% of total revenue.

3.2.1 Mold fabrications

With 35 years experience on mold design and fabrication, TK dedicates to provide the best performance of injection mold solution by two business divisions: BU Standard and BU Precision.

BU Standard mold is specialized in the complex mold covered from medium to big size by wide range products, served for Aerospace /Automotive//Smart Home and other industries. Especially the 2K, IMD molds, Mucell molds, Over molds, Stack molds and Tandem molds ...etc. built us as an expert and provide high performance and high quality molds to our customers.

BU Precision Mold focused on tight tolerance tooling with multi-cavity, industry covered from Precise electronics, Healthcare, Packaging and Medical.

Business mainly covered in American and European area, beside the new molds delivery service, moreover, also can support customer locally - from the landing service, turning service, maintenance and other engineering services.

The income for mold fabrication segment was HK\$649.7 millions in year 2017. It was slightly increased 2.9% compared to year 2016. The data shown that the sales income still keep increase YOY since 2013, but the increase trend started from year 2013 33.6% down to year 2017 2.9%. It indicated the need to focus the business growth...

3.2.2 Plastic component manufacturing

We provide customers the services including products analysis, tooling building, dimension inspection, surface treatments, mass production and delivery; our multinational Sales teams, Project teams and Engineering teams responding the worldwide customers very quick with fluent English, In order to satisfy the wide requirements and better engineering services for customers who based in the North America , we also built an office in Silicon Valley.

The income for mold fabrication segment was HK\$1211.11 millions in year 2017. It was increased 21.7% compared to year 2016.

3.3 Industry review

2013 - 2017 Industry Sales						
No.	Industry	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017
		HK\$ million	HK\$ million	HK\$ million	HK\$ million	HK\$ million
1	Automobiles	280.1	228.6	302.4	387.1	387.9
2	Commercial telecommunications equipment	159.1	202.7	311.2	374.6	359.3
3	Mobile phones and wearable devices	196.7	298.5	332.0	295.0	369.1
4	Medical and health care	56.8	119.9	203.7	217.5	295.7
5	Smart home			78.0	90.7	210.3
6	Household electrical appliances	132.0	234.6	138.9	88.7	73.8
7	Digital devices	86.4	79.2	110.1	79.2	69.9
8	Others	154.8	108.6	129.9	92.7	93.9
9	Video game devices	34.1	56.5			
10	Pachinko	97.9	10.3			
Total:		1197.9	1338.9	1606.2	1626.6	1850.9

Table 2 2013-2017 Industry Sales

Source: TK Group (Holdings) Limited (2013-2017) *Annual Report 2013-2017*. TK Group.

Based on the Industry Sales figure, it indicated there were 5 industries (including Automobiles, Commercial Telecommunications equipment, Mobiles and wearable devices, Medical and health care, Smart home) sales revenue performing increased in year 2017. The revenue from those 5 industries was contributed 87.2% of total revenue.

Automobiles

Automobiles industry was Top 1 income in year 2017. The revenue was HK\$387.9 millions. It was about 20.8% of total revenue, compared year 2017 and year 2013, the revenue increased 38.5% or HK\$107.8 millions. But compared to last year the revenue was almost the same (only HK\$0.8 Million higher).

Commercial telecommunications equipment

The revenue was HK\$359.3 millions in year 2017 but was decreased HK\$15.3 million from last year. Although revenue was dropped in year 2017, it still contributed 19.3% of total revenue.

Mobile phones and wearable devices

Mobiles phones and wearable devices revenue was HK\$369.1millions in year 2017 about HK\$73.1millions or 24.7% more than last year. It was about 19.8% of total revenue, compared year 2017 and year 2013, the revenue increased was HK\$172.4 million or 87.6%. TK Group expected to maintain strong growth momentum in 2018 (TK Group, 2017).

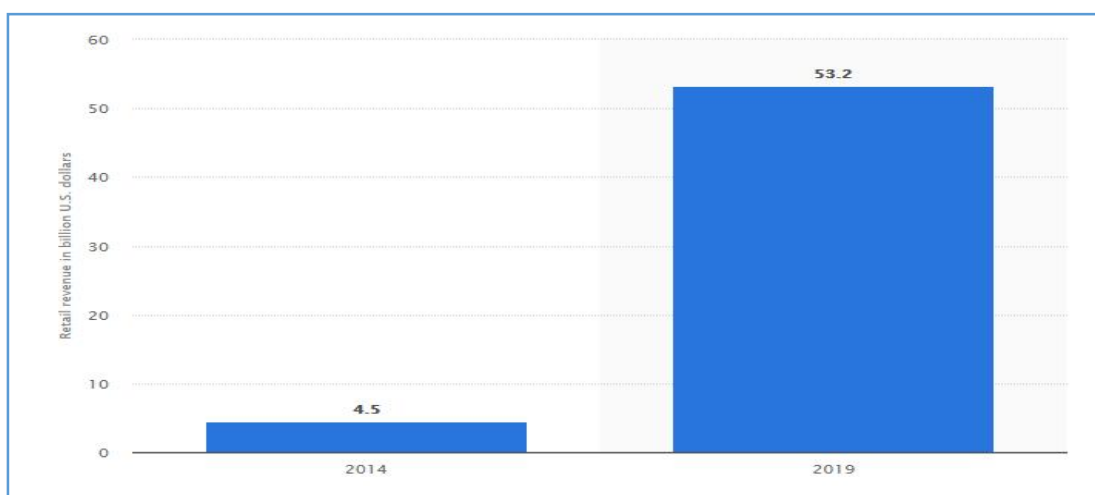


Figure 3 Projected global retail revenue from smart wearable devices in 2014 and 2019

Source: Statista. (2019) Projected global retail revenue from smart wearable devices in 2014 and 2019

Medical and health care

Medical and health care revenue was HK\$296.7 millions in year 2017 about HK\$79.1millions or 36.4% more than last year. It was about 15.9% of total revenue, compared year 2017 and year 2013, the revenue was significant increased HK\$239.9 million or 422%. TK Group forecasted it can be maintaining strong growth momentum in 2018 (TK Group, 2017).

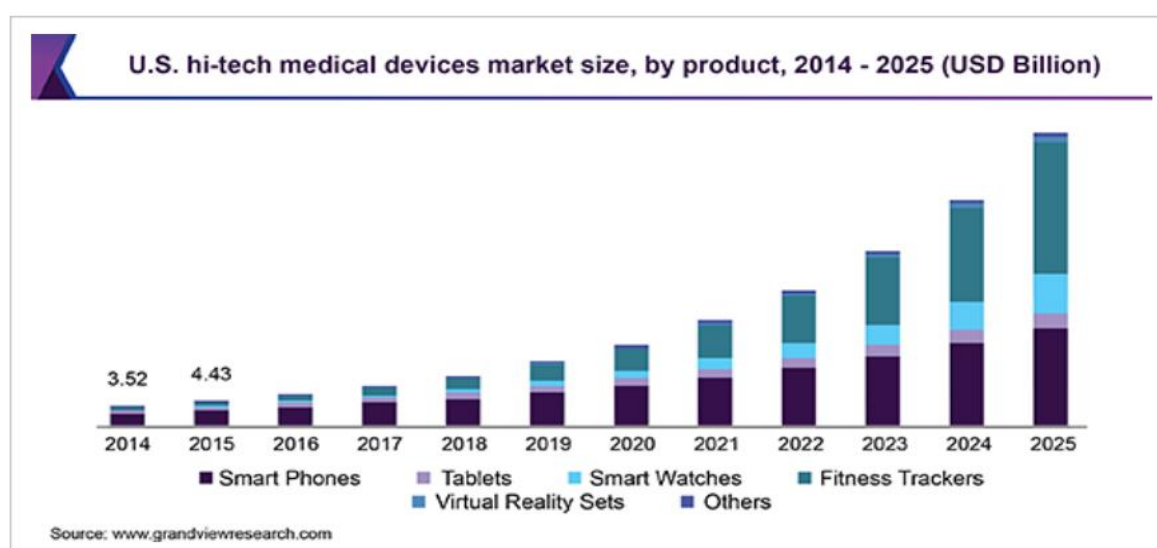


Figure 4 Hi-Tech Medical devices market forecast – 2014-2025

Source: Grand View Research, Inc. (2018) Hi-Tech Medical Devices Market Analysis Report By Product (Tablets, Smartphones, Smart Watches, Fitness Trackers, Virtual Reality Sets), By Site (Strap, Clip, Bracelet, Handheld), And Segment Forecasts, 2018 – 2025

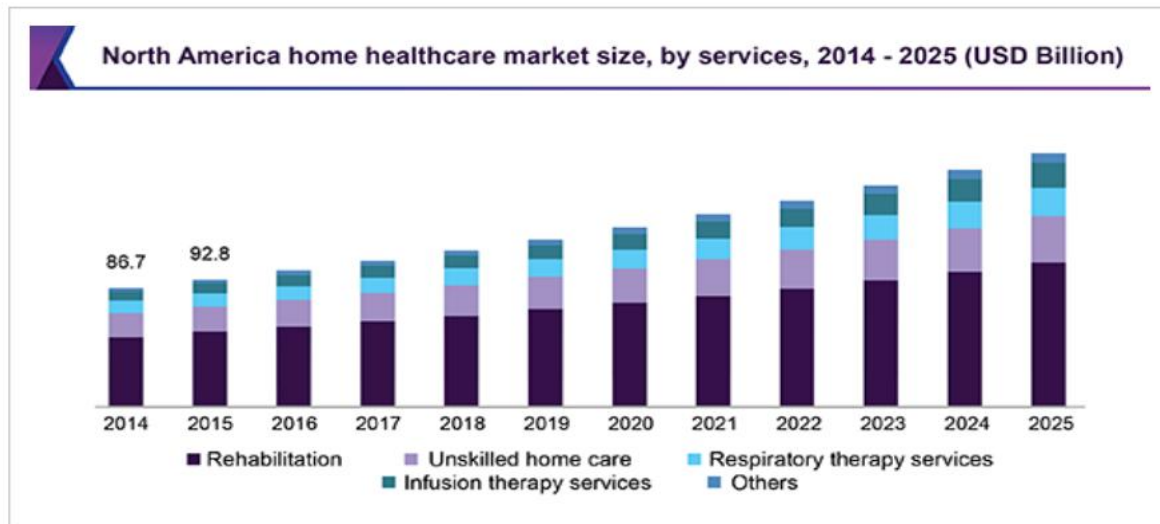


Figure 5 North America Home healthcare market – 2014-2025

Source: Grand View Research, Inc. (2018) Home Healthcare Market Analysis Report By Component (Equipment (Diagnostic, Therapeutic, Mobility Assist), Services (Rehabilitation, Infusion Therapy, Respiratory Therapy Services)) And Segment Forecasts 2018 - 2025

Smart home

Smart home industry was started in year 2015 with HK\$78.0 millions revenue. The revenue was slightly increased to HK\$90.7 million in next year. In year 2017 the revenue was HK\$210.3 millions which was about HK\$119.6 million or 131.9% more than last year. It was highest increased rate or revenue in the TK Group. Same as Medical and health care and Mobile phones and wearable devices, TK Group predicted to maintain strong growth momentum in 2018 (TK Group, 2017).

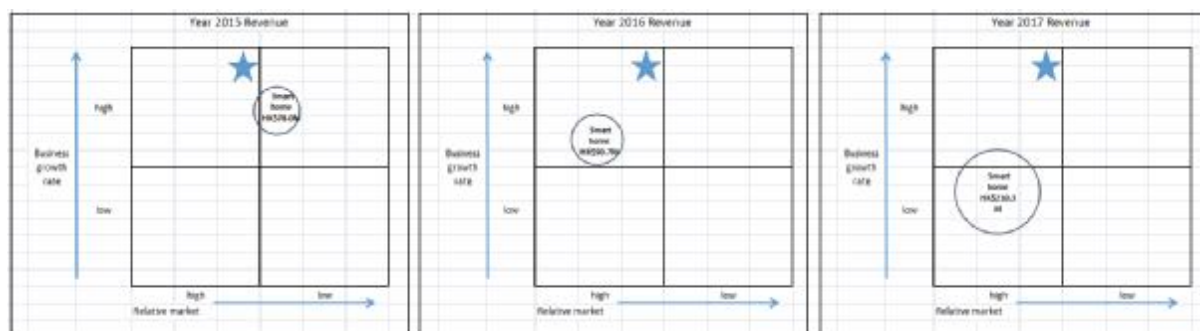


Figure 6 BCG for Smart Home industry – 2015-2017

Source: Boston Consulting Group. *Adapted from The Product Portfolio Matrix* (1970). The Star, the Dog, the Cow and the Question Mark – The Growth Share Matrix.

Refer to the above figure 3.3.1, Left one shown the Year 2015 revenue of Smart home industry, Smart home product was the selected potential new industry which investment was high and sales revenue was less, but it was success with first year, it generated HK\$78.0M revenue. The middle one was the Year 2016 revenue of smart home industry, it increased up 16% at HK\$90.7M, the performance was improved which indicated the Smart home product market share was starting increased. The right one was the Year 2017 revenue, it was HK\$210.3, the revenue was up 131.9% indicating the market share of Smart home industry grew rapidly and generated more profit.

(Grand View Research, Inc. 2014) forecasted Smart home market has positive growth chain from year 2012 to 2020. From the fact, the growth of the Smart home market did align with the forecast chain, that means if everything go smooth per forecast, the smart home market will contribute higher % of the total revenue and bring benefit to all shareholder.

Asia Pacific smart home market, by application (USD Million)

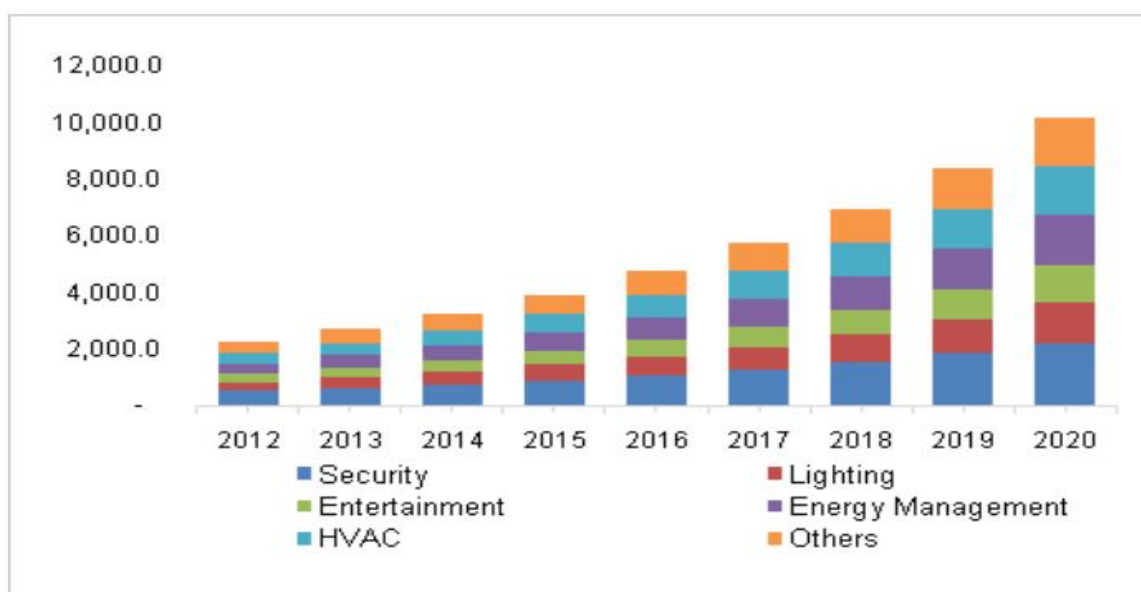


Figure 7 Smart home market forecast – 2012-2020

Source: Grand View Research, Inc. (2014) Smart Home Market Analysis By Applications (Security, Lighting, Entertainment, Energy Management, And HVAC) And Segment Forecasts from 2012 to 2020.

Household electrical appliances

Household electrical appliance revenue was HK\$73.8 millions in year 2017 about HK\$14.9millions or 16.4% less than last year. It was three years in a row the revenue keeping decreased from year 2014 HK\$234.6 millions. It was decreased 68.5%. The revenue was about 4.0% of total revenue in 2017.



Figure 8 Export value of home appliances in 2017

Source: China Household Electrical Appliances Association (2016) Global home appliance exports and imports in 2017.

Digitals devices

Digital devices revenue was HK\$69.9 millions in year 2017 about HK\$9.3millions or 11.7% less than last year. It was 2nd year revenue decrease since year 2015.

Others

Others included all the miscellaneous parts contributed HK\$93.9milliom or 5% or total revenue. It is about same as last year.

Video game devices & Pachinko

These two industries both had been stopped production since year 2015.

3.4Strategy Review

Porter (1996) has suggested that 'strategic positions can be based on customers' needs and accessibility, or the variety of company's products or services and trade-offs are essential to strategy' and for development successful strategy, market segmentation, targeting and then positioning could be useful. TG Group's 2014 strategic layout matches perfectly.

In Year 2014, acquired Nypro Tool – Shenzhen property, It was not just enhance TK Group's design and production capacity of medical and packaging mold, but also expands customers network of medical and health care business (TK Group, 2014).

On the other hand, in order to capture the huge demands for ultra-large molds from the automobiles industry, In September 2014, TK completed the

acquisition of Selig & Böttcher GmbH & Co. KG (“S&B Company”) which has a strong history in operating distribution of tools and special machines for injection molding as well as mold fabrication. By virtue of their selling network and marketing capabilities in the European region, TK will be able to provide more closely-tailored after-sales service for the local existing customers, which also contributes to the introduction of more customers in Germany and Europe, and then further consolidate the market share of TK Group in the automobiles molds market. (TK Group, 2014).

4 Conclusions

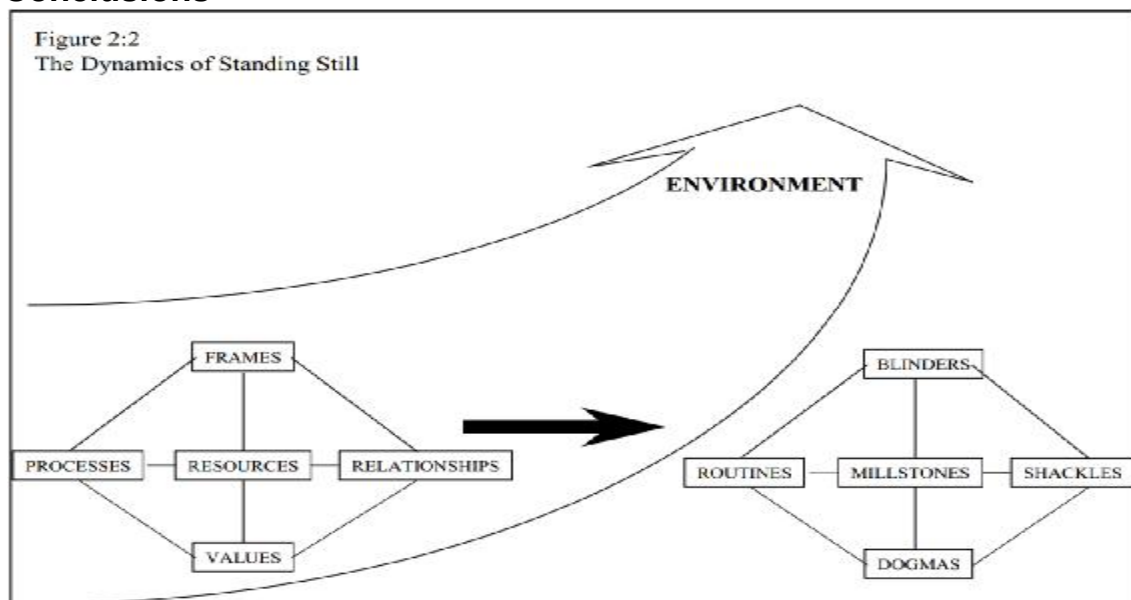


Figure 9 The Dynamics of Standing Still, 2005

Source: Null, N.D. (2005) 'Why good companies go bad and how great managers remake them', in *Why good companies go bad*. Financial Times, 3rd October.

(Null, 2005) has suggested that *'To win in the market, executives must make a set of commitments that together constitute the organization's success formula. A distinctive success formula focuses employees, confers efficiency, attracts resources, and differentiates the company from rivals. Five categories of commitments comprise the success formula:*

- **Strategic frames:** *What we see when we look at the world, including definition of industry, relevant competitors and how to create value.*
- **Processes:** *How we do things around here entailing both informal and formal routines.*
- **Resources:** *Tangible and intangible assets that we control which help us compete, such as brand, technology, real estate, expertise, etc.*
- **Relationships:** *Established links with external stakeholders including investors, technology partners or distributors*
- **Values:** *Beliefs that inspire unify and identify us'.*

Base on the study of the TK Group, It has noticed that TK was very successful to keep company growth YOY. They haven't had any success syndrome and continue prolonging period of success. This is not any below situations been occurred:

- Decreased customer focus
- Increased cost
- Less innovation

In fact, for last few decades, the TK Group are continuously doing:

- Customer focus:
 - o Company vision is “ Keeping our customers SUCCESSFUL”
 - o Upgrading mold fabrication technology and quality, enhance Plastic injection molding control to deliver problem free products to customer;

- o Continue invest new processes and technologies to enhance “one-stop” service to customer;
- Controlling cost:
 - o Improve production processes with more automation;
 - o Continue provides appropriate training and development programmes to its employees to enhance the working ability and personal effectiveness;
- More innovation:
 - o Enhance tooling design team capability with innovation mold structure design;

So in general, the conclusion is: GK Group has very good market Strategies, effective system and processes, enough resources to fulfil the current and future need. Continue stick to the strategy of client diversity in order to manage and diversify risks efficiently. The company can be able to continue growth the revenue and generate better net profit margin for all shareholders.

六西格玛项目启动

发布时间: 2017.05.10



Figure 10 6 sigma project starting - 2017

Source: TK Group (Holdings) Limited. (2019) *Company News*

企业文化工作坊



Figure 11 Company culture workshop - 2017

Source: TK Group (Holdings) Limited. (2019) *Company Staff Activity*



Figure 12 Core conception

Source: TK Group (Holdings) Limited. (2019) *Core conception*



Figure 13 Human development

Source: TK Group (Holdings) Limited. (2019) *Human Development*

5 Recommendations

Based on the above analysis and conclusions, in order to sustain the revenue growth for shareholder, maximize shareholder value and grow the market share, here are the recommendations:

- **Development strategy:**

- Tap into the potential of existing customers and strive for greater proportion of supply.
 - o For example: Current providing product for company A and Company A been acquired by company B, so can be use current qualified supplier identity of company A to develop more business...
- Continue to improve production processes automation, technology and mold fabrication design, promote production benefit and gross profit margin.

For example:

- Full automation for plastic injection, monitoring the production process with high technology device to ensure quality assurance and keep production running smoothly, achieving unmanned(fewer operators) production plant, save direct labours and electricity, etc....

Deploy lean manufacturing concepts and disciplines to eliminate waste and variability...

- Keep close eye on “emerging industries and the trend of the modern products, develop new potential customers.
 - o For example: Year 2015, TK Group started the Smart home industry business form about HK\$78 million revenue and becoming HK\$210 millions revenue in year 2017, it increased almost 2 times in 3 years.

- Keep looking for the investment projects, actively look for M&A opportunities, targeting that have complementary advantages, can be able to expand customer mix, promote technology and improve production capacity, worldwide coverage and sales channels drive an overall growth in our businesses.

For example:

December 2017 TK Group executed an investment agreement with Precision Robotics, a British medical robotic surgery platform company. Precision Robotics is a new spin off company launched by Imperial College London. The Group believes that through the investments in this project, it would not only foster the high-tech start-ups with development potentials, but also broaden the Group's brand awareness in health- and medical-related sectors as well as expand its business networks, thereby exploring wider business opportunities and potentials (TK Group, 2017).

5.2 Drive operational & quality excellence (High level)

5.2.1 Enhance Discipline and Exercise Follow Up, to drive Sustainability and Continuous improvement.

5.2.2 Optimize and Streamline "Hardware" and "Humanware", to drive speed and effectiveness.

5.2.3 Hardware: Equipments, Process and Systems optimization.

5.2.4 Humanware: Commitment (unified vision and targets), Capability (Knowledge and expertise) and Synergy (Teamwork and cooperation)

- **Enhance Discipline (Actions)**

- Process robustness & adherence – PFMEA; Control Plan; Work Instructions and Control Sheets
- Lean manufacturing concepts and disciplines – eliminate waste and variability
 - Visual factory
 - Preventive maintenance
- Quality tools – fast, effectively and continuously
 - 8D – “It is - It is not”; cause effect diagram; 5 Why; etc...
 - 6 Sigma – D M A I C
 - TPPA – Trend- Pareto – Paynter - Action
 - Poke Yoke – Drive ZERO PPM
 - Improvement teams – continuous improvement processes

- **Exercise Follow Up**

- Periodic performance review
 - Systems adherence
 - Processes indicators
 - Product audits
- Periodic management reviews
 - Daily start up meetings – performance
 - Daily fast response meetings – problem solving and closure
 - Weekly/monthly management reviews
 - Monthly QOS – cross functional
 - Periodic individual performance reviews

- 8D deployment / closure reviews
- 6 Sigma project reviews
- **Drive speed and effectiveness.**
 - Equipment improvement by Preventive maintenance.
 - Quality assurance by POKA YOKE
 - Efficiency by Lean operations
 - Enhance and sustain commitment to results and effectiveness
 - Enhance and Increase Capability (Knowledge and expertise)
 - Work as one team – enhanced by Synergy and cross functional cooperation

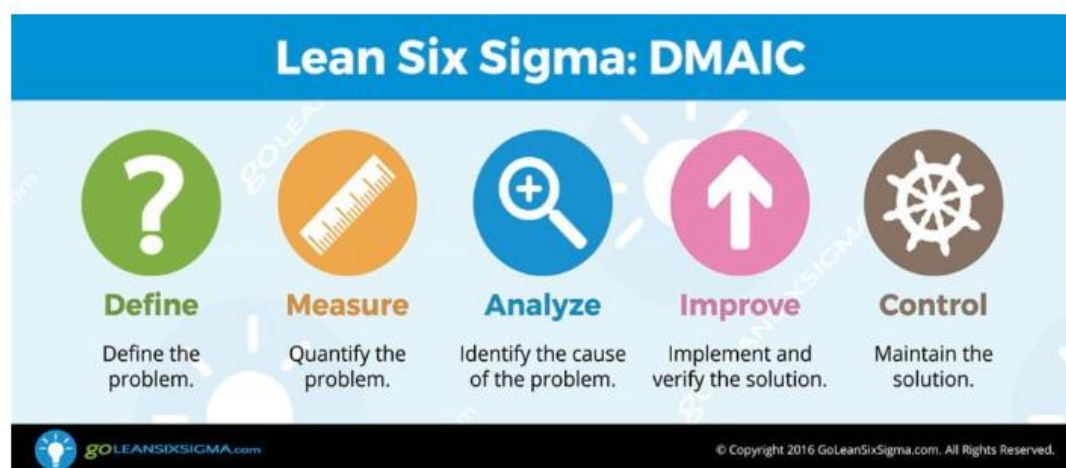


Figure 14 DMAIC – The 5 Phases of Lean Six Sigma

Source: Goleansixsigma.com DMAIC – The 5 Phases of Lean Six Sigma

6 References

1. Boston Consulting Group. *Adapted from The Product Portfolio Matrix* (1970). The Star, the Dog, the Cow and the Question Mark – The Growth Share Matrix.
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Appendix I – Tables

Table 1 TK Five Year Financial Summary, 2013-2017

Table 2 2013-2017 Industry Sales

Appendix II – Figures

Figure1. Sales Cost , 2018

Figure 2 Five Year Revenue by Business Segments, 2013-2017

Figure 3 Projected global retail revenue from smart wearable devices in 2014 and 2019

Figure 4 Hi-Tech Medical devices market forecast – 2014-2025

Figure 5 North America Home healthcare market – 2014-2025

Figure 6 BCG for Smart Home industry – 2015-2017

Figure 7 Smart home market forecast – 2012-2020

Figure 8 Export value of home appliances in 2017

Figure 9 The Dynamics of Standing Still, 2005

Figure 10 6 sigma project starting - 2017

Figure 11 Company culture workshop - 2017

Figure 12 Core conception

Figure 13 Human development

Figure 14 DMAIC – The 5 Phases of Lean Six Sigma

Student Self Evaluation Form			
Student name:	Kwok Man Kam, Ken	Student number:	1812206
Programme:	MBA	Year of programme	2018
Assignment Title:	Assignment 1 Consultancy Management		

This section repeats in brief the common assessment criteria detailed on previous pages. The *extent* to which these are demonstrated by you determines your mark. Using these criteria, tick the box that best indicates the level of achievement you feel you have achieved with regard to each of them.

Common Assessment Criteria Applied	Level of Achievement						
	REFER			PASS		DISTINCTION	
	FAIL	FAIL	MARGINAL FAIL	SATISFACTORY	GOOD to VERY GOOD	EXCELLENT	EXCEPTIONAL
1. Engagement with literature	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
	☐	☐	☐	☐	☐	☒	☐
2. Knowledge and Understanding	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
	☐	☐	☐	☐	☐	☒	☐
3. Cognitive and intellectual skills	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
	☐	☐	☐	☐	☒	☐	☐
4. Practical Skills	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
	☐	☐	☐	☐	☒	☐	☐
5. Transferable Skills for Life and Professional Practice	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
	☐	☐	☐	☐	☒	☐	☐

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL		PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP	
N/A.		Practical skills.	
Student's Name	Kwok Man Kam, Ken	Date	2018-12-29
Student's Signature	