



INDUSTRIAL TRAINING REPORT

Swot analysis of Institut Perubatan dan Pergigian Termaju, USM and PESTEL about Medical Sector.

Institut Perubatan dan Pergigian Termaju, USM

1 MARCH - 13 AUGUST 2021

MUHAMMAD AKMAL DANIAL BIN MUHAMMAD HASSAN

2019353239

BACHELOR'S DEGREE IN BUSINESS ADMINISTRATION (HONS) FINANCE

ADVISOR: SIR WAN MOHD YASEER BIN MOHD ABDOH

EXECUTIVE SUMMARY

My memorable things after I was studying of my diploma and also for my degree is being internship student at Advanced Medical and Dental Institute or Institut Perubatan dan Pergigian Termaju (IPPT). This institute is under Universiti Sains Malaysia (USM). This institute have preclinical centre, clinical centre and also have lab for medical purpose and also have their own lab for Animal Research Centre (ARC). IPPT actually first institute in Asean that own the modern technology and all of that are world class. I am very proud when I got the internship offer here. This IPPT have their own management and not related to the USM. Moreover, they have their own management and their own section to control the IPPT. I have been placed in the finance section under Puan Hafizah and sub to the revenue and assessment unit under Puan Norshahana Binti Che Samsudin. I got really amazing experience there because all the officemates are very kind and sociable. Furthermore, the method that I have been used in this report is SWOT and PESTEL analysis. There were three method that I can be used for this report but I decided with my advisor to use the SWOT and PESTEL analysis because my company cannot able to give me some data according to their performance and data about them in and out of money. This is because this company were under USM and half under the government. The data were private and confidential. In this method talked about the strengths, weakness, opportunity and threat about this company. The result, I can identify some strengths that really good for the company and also some weakness of the company. About the PESTEL analysis I got some information that many factors impact the medical sector in our country such as from political, environmental, social, technology, economic and legal factor. Many factors help Malaysia to achieve the best level of medical convenience nowadays. Based on the result I see, many strengths and opportunity that can help IPPT to go more further in the future. I recommended that IPPT to take this golden opportunity to create their name internationally with what they owned now.

TABLE OF CONTENT

Content	Pages
Executive Summary	i
Table of Contents	ii
Acknowledgement	iii
Updated Resume	iv
Company Profile	1-3
Training Reflection	4
Swot Analysis	5
Discussion and Recommendation	6-13
Pestel Analysis	14-27
Conclusion	27
References	28-29
Appendices	30-31

COMPANY BACKGROUND

I have pursued my internship at Advanced Medical and Dental Institute (IPPT) which is located at Bertam Indah, Kepala Batas. This place provided a clinical service that own by Universiti Sains Malaysia (USM). This institute was officially launched on 20 September 2004. In line with the development of IPPT, the clinical services are now located in the Clinical Trial Complex (CTC) in Bertam, Kepala Batas, Penang.

This clinical complex equipped with the latest medical and dental facilities including specialist clinics, inpatient ward and day care unit. IPPT being the first clinical complex that have the modern technology first in northern Area of Malaysia. Many patients from Perlis, Kedah, Pulau Pinang and Perak came and get the treatment here. IPPT offers medical and dental expertise services as well as executive health services in various fields such as surgery, paediatric, family medicine, radiology, oncology, nuclear medicine, anaesthesiology, orthodontics and prosthodontics. The location of this complex also very strategic because Bertam Indah area nowadays have been increase by the residential area. Bertam Indah also have Tesco, Mydin and its business shop lots.

IPPT also provides medical support services such as rehabilitation, diagnostic laboratories and pharmacy. IPPT is the only cancer referral centre in the northern region of peninsular Malaysia (under USM and the Ministry of Education Malaysia) providing comprehensive expertise, equipment and treatment comprised of chemotherapy, radiotherapy and brachytherapy. With the latest medical and dental care offered here, it is hoped that IPPT will become a respected and well-known clinical centre in Malaysia and internationally.

Vision & Mission

IPPT VISION

Leading the world in new innovative discoveries towards sustainable and holistic healthcare deliveries.

IPPT MISSION

To developed state-of-the-art advanced research, conduct innovative postgraduate programmes and deliver tertiary healthcare services towards sustainable mankind.

OBJECTIVE

- To provide state-of-the-art research facilities to generate novel healthcare discoveries of great commercial values.
- To disseminate research findings in the form of presentation and publication for the advancement of knowledge.
- To achieve and maintain international standards of accreditation in management, laboratory and research facilities and services.
- To be leading referral centre which provides state-of-the-art healthcare services, promoting health lifestyle.
- To offer, upgrade & create innovative & relevant postgraduate programmes in niche areas that meet global requirements.
- To promote internationalisation of healthcare services, academic and research activities.

Organizational Chart



TRAINING REFLECTION

In this section, there was a little bit story and the daily life about my internship at Advanced Medical and Dental Institute (IPPT). Firstly, about the specific date that I need to be done to completed my internship for my degree was for 5 months 13 days and its start from 1 Mac 2021 until 13 August 2021. IPPT was he clinical complex that must be opened for every day and 24 hour a day because there were some patients that stayed in the day care ward. Generally, this complex has no closing day but others department that not related to the ward operation only works from Monday to Friday from 8:10 am until 5:10 pm. These departments such departments as payment counters, engineering, finance section, administration section, maintenance and others.

I have been taking to work under the finance section by Puan Hafizah and placed under the Revenue and Assessment Unit and supervised by Puan Shahana Che Samsudin. There are several units under the finance section such as procurement units, quotation units, revenue and assessment units and others. The revenue and assessment unit plays an important role in the complex as all patient treatment payments must be paid through this unit. This unit has provided a counter where patients have to pay for all kinds of their treatment before going home. This unit also keeps records of patients who have come and undergone treatment here. In general, this unit will be monitored and recorded all payments involving all matters related to the complex. In addition, in this unit they keep invoices of unpaid debts by patients as well as the use of equipment, rentals and expertise. This unit will always ensure that those in debt will settle their debts by sending letters of debt to them.

While getting an offer to continue my internship here, I was informed that here are not provided some facilities such as residential hostels and allowances. Due to, other more favourable factors, I have accepted to undergo an internship here. The knowledge and some of the skills that I got here is the skill in storing patient data using Microsoft Excel and also making letters correctly. I really thankful to my supervisor and the officemate that very welcoming and kinds. They were really cared about me and treated me well.

SWOT ANALYSIS

STRENGTHS <ul style="list-style-type: none">• Expertise in technology and have expertise treatment.• Has animal research centre.	WEAK <ul style="list-style-type: none">• The payment same level as private hospital.• Lack quantity of beds and not utilized the land.
OPPORTUNITY <ul style="list-style-type: none">• Location adjacent to highway plus.• Has domination of the new technology	THREAT <ul style="list-style-type: none">• Movement Control Order.• Unstable rising case of covid-19 patients.

Strengths

- **Expertise in northern area and also have expertise treatment.**

One of the strengths of the Advanced Medical and Dental Institute (AMD I) that I am undergoing my internship is the advanced clinical complex that own under Universiti Sains Malaysia. This clinical complex is the facility that equipped with advanced health systems and equipment in the northern district of Malaysia. While I was doing the task of reviewing and key in the data of patients who had visited this complex, I looked for most of the patients who came from Perak, Penang, Kedah and Perlis. Based on the news, there are few treatments provided here which are the latest medical treatment and have the specialist in dental treatments, inpatients and day care units. IPPT offers specialist medical and dental services as well as executive health services in various fields such as in, pediatrics, family medicine, radiology, oncology, nuclear treatment, anesthesiology, orthodontics and prostodontics. Treatment expertise required for radiotherapy treatment. IPPT is a reference for cancer experts in the North Peninsula of Malaysia because there is a nuclear treatment used for cancer patients.

There are recommendations that can be concluded about the strengths that owned by IPPT. The management of the IPPT must always come out with new idea and also committed to drive forward for better quality hospitality, services and also treatment. This IPPT can use this strengths to survive about another 10 years as an institute with advanced equipment and expertise treatment because so far there were no competition from others. In addition, the management of this IPPT get new director on 1st July 2021. A meeting was held and the new director wants the staff and the management rising together to be more proactive in 10 years from now.

- **Has animal research centre.**

This animal research centre that owned by IPPT make this complex has strengths to be well known in Northern Malaysia about their research in animal. According to this new in 4 July 2016, Universiti Sains Malaysia (USM) become the first higher education institute in Asean to have different facilities or laboratories of both preclinical and clinical studies with world-class quality. Preclinic Translational Unit (PTU) also has been the only one facility in this country that have been approved as Good Laboratory Practice (GLP) -rated preclinical research facility to conduct toxicological testing on pesticides. This award is great for enhancing the capacity of local facilities in conducting studies without the need for wastage to send samples abroad for study. This can generate more data and also more income for USM to keep improving their facilities The success of obtaining GLP accreditation recognized with full compliance status by the Organisation of Economic Cooperation and Development (OECD) international organization headquartered in Paris, France guarantees the acceptance of test reports around the world while enabling the global marketing of national researcher innovations and local company products. Malaysian scientists and academics are welcome to use the animal preclinical study facility at PTU which is expected to strengthen local academic research and publications, as well as meet the needs of local and foreign industries that require GLP-rated preclinical study reports for product registration applications with local authorities and abroad.

The recommendation that I can concluded from this point is make more events or advertisement to another institute or organisation that make research on animal to be used the equipment prepared at IPPT. Since the laboratory at IPPT get the GLP title that secured the research to be done there. Furthermore , there will more research that cooperation IPPT,USM and others. The GLP award obtained should be used better as well as to further enhance the capabilities of the experiments conducted at IPPT and make the IPPT well known internationally.

Weakness

- **The payment same level as private hospital.**

A company or institute will definitely have some weakness that they must to take action. For the payment of the cost of treatment price here is not the same as the price of the cost of treatment in hospitals and other public clinics. This is because, IPPT is categorized as a treatment centre under the private sector and also the other half under the government sector. In general, this institute is a statutory body. The price of treatment here is also according to person income category. Prices for someone under the B40 and T20 categories are different. Only for those who work under the government sector and also have a pension from the government sector get cheaper discounts. Exceptions and discounts also to the staff and dependents of those who undergo treatment there will get a price exemption. This situation will cause only the wealthy to receive treatment here compared to those under category B40. This can have implications for the company's profits because not everyone will choose to seek treatment here. In conclusion, IPPT should make health campaigns that can attract people around to get treatment here.

The recommendations that I can conclude from this point of weakness is must do any incentives that can attracted the people to come get the treatment here. In addition, not all the people got to pay same priced as they must pay according to their level of income. The person who has Guarantee Letter that said they work under government sector will get a exceptions fee payment and a small fee if needed. Moreover, this can be overcome by frequently making events and campaigns to the people better know the treatments and advantages available at IPPT.

- **Lack quantity of beds and not utilized the land.**

Second weakness that I can recognized about this institute is about their quantity the of the beds. This institute be the first institute that have the world class preclinical, clinical and lab in the Asean. This shown this institute can be more well know and can create the good name of Malaysia and USM about the research that the local lab can be produced. Unfortunately, the area of this institute actually is very big but on this land of have several buildings for their operation including the building that placed the patients in day care ward. The strong of the medical institute or hospital are measured by the quantity of the bed that shown their ability to handle patients at the maximum. Through my observation, the IPPT did not utilized their available land to grow up their operations to a next level. With many buildings built on the land can placed several more units and other facilities and for sure can put more quantity of beds to strengthen their abilities.

As conclusion, there were few recommendations that I can conclude. Firstly, it is a loss suffered by IPPT because with idle land is not developed efficiently. I believed that if the land utilized many advantages that can obtained. The IPPT can make special building for their executive polyclinic services and easily to focus at the patients there. The current building can place more units and other facilities needed. The problems about lack of bed also can be solve if they has the special building for the executive polyclinic services to put the patients.

Opportunity

- **Location adjacent to PLUS highway**

One of the opportunities of IPPT is that this institute has a strategic location and this place is close to the North -South Plus Highway. This advantage can be utilized well by IPPT and make it easier for patients to come for treatment. If patients are from other states such as from Perak, Perlis or Kedah, they must use the north-south highway and exit the Bertam toll. From the toll plaza, they just need to turn left and continue straight until they reach the institute. This is seen to give a good impact in terms of the number of patients who want to seek treatment here. If patients are comfortable and feel easy to come, they will definitely continue to seek treatment here for patients who need further treatment. If there are many patients, then IPPT is making a good profit. The potential outcome from this opportunity will attract more patients even from the others southern state because the way to come here are very easily. In additional, this location also near to the city of Kepala Batas and this city have many motels, Seri Malaysia hotel, shopping malls and also fast-food restaurants that can help patients who come far.

For this point, the recommendation that I can conclude is let IPPT be placed here forever because there were a lot of public access that can use by the patients. The local area is also a developing area. This is an opportunities to IPPT to get more patients in the future. The strategic place, full of public access and near the PLUS highway can generate more income to IPPT.

- **Has domination of the new technology.**

Another opportunity that IPPT has is the has domination of the new technology. As you know, IPPT is a clinical Institution with the best laboratories, preclinical and clinical in Asean. If in Malaysia, this institution is the best in the country and the best around the place. This opportunity makes that the technology here is the most advanced to compare with others. Then there is the domination of technology that can help IPPT to continue to be proud of these achievements. This is very good because, no other institute can challenge IPPT. This allows many people to get to know IPPT and know about the greatness that this institute has. With the technology they have, some of the treatment that others hospital cannot do it such as cure the cancer can transfer this patient to IPPT. The nuclear units and radioiodine treatment in IPPT can help the cancer patients. There were also a few patients that getting better after get the radioiodine treatment there. IPPT also recommends more scientists to use the services of IPPT and therefore they can produce local research results without having to send to foreign countries to do research. This can make Malaysia and USM famous.

From my point of view, some recommendation that can be concluded on this opportunity point. Being advanced from the others make the IPPT get the golden opportunity to build their name stronger. The management of IPPT and USM must plan to continue the domination of new technology that IPPT have. They must keep improve and install new equipment and facilities to make sure that the domination will keep stay into 10 years more.

Threat

- **Global pandemic and Movement Control Order**

In early 2020 the whole world was shocked by a global pandemic Covid-19. Covid-19 is the biggest threat that can be seen to disrupt the operation of IPPT and also disrupt the number of patients present here. The Malaysian government at that time, had implemented a curfew policy by controlling movement throughout the country. This movement control is difficult for many parties because the people are not allowed to go out and they also only allowed to work from home. This has resulted in many patients having to postpone their treatment appointments and having to request a cross-state letter at the police station. Staff at IPPT also only need to come around 30% in accordance with the conditions set by the Minister of Security. This situation is seen to cause a lack of staff support at IPPT and also delay a decision made because it is necessary to contact employees who are working at home first. This will be lack of communication and leading to mistake in decision making and also can cause stress among the staff. This situation also can cause the stress because a lot of procedure that they must be done to get the permission to cross another state. Movement control order can affect the monthly income of the IPPT as well. This MCO is unavoidable as this is very important for the country to break this Covid-19 chain, but the IPPT should be positive in doing work within the MCO period by improving good communication rates and should also help patients in other states by supplying them with letters support for cross -state.

The recommendation that I can concluded for this point more to the government. Government must revive the economy which has been in decline since Covid-19 has had to reopen all sectors. Movement Control Order should also be loose to make it easier for new patients as well as old patients to come for treatment at IPPT. Honestly, this is just a recommendation that I can conclude, only the government knows a better policy to take care of its people and also the country's economy.

- **Unstable rising case of covid- 19 patients and not proper of Movement Control Order**

Another thing that can be considered a threat for this institute is the unstable rising cases of covid-19 and not proper of Movement Control Order made by the government. The rising of the cases also actually come from the citizen itself but cannot totally blame them because they must out to work for their family. Before this Malaysia was able to be at Recovery Movement Control Order a few months later when the daily case recorded only two digits. During that time, many sectors had opened up and had given new hope to them recovery their business especially the tourism sector and at that time the Ministry of Health was able to handle the capacity of beds to place Covid-19 patients, but since the drastic increase in early 2020, the government has re - implemented MCO 3.0 but it is seen to be less effective as daily cases are seen to show no decrease. If those things keep increasing, it could be a threat to IPPT and the Ministry of Health to accommodate the number of patients with the quantity of beds available in the country. So far, no staff at IPPT have been infected with Covid-19, but if this matter is left to worsen, it is not impossible that staff at IPPT will be infected with this virus. During MCO, government stressed all the sector to implement policy work from home (WFH) and these things affect the IPPT programme such as meetings and events and also other cost to buy the premium online meeting apps. MCO cannot be avoided by IPPT because it was a government policy but the IPPT management must be creative to solve these issues.

Hence, the recommendations that can be concluded. This recommendation is more to the citizen. The policy make by the government for sure want to break the Covid-19 and the citizen must properly obey the instructions as best as they can. the citizen must be obey to the SOP and more careful in the crowded place to avoid from getting this virus. This increase of the cases actually can bring negative impact to many sectors and also give negative impact to country economy.

Pestel Analysis

Political <ul style="list-style-type: none">• Subsidies borne buying medicine by government.• Medical sector in Sabah and Sarawak.	Technology <ul style="list-style-type: none">• Rehabilitation robotics..• Robotic Surgery.
Economic <ul style="list-style-type: none">• Malaysia is aiming to become a medical tourism hub in ASEAN.• Malaysia as producer of medical devices and halal pharmaceuticals market.	Environmental <ul style="list-style-type: none">• Changes disease and demographic.• Clinical waste management.
Social <ul style="list-style-type: none">• Health Consciousness Among Malaysian.• Universal Health Coverage (UHC) And Income Level.	Legal <ul style="list-style-type: none">• Medical Device Act 2012• Price Control and Anti-Profiteering Act 2011

Political

Subsidies borne buying medicine by government.

Malaysia achieved independence in 1957 from the British. After independence, Malaysia is one of the countries in the Southeast Asian region that is rapidly developing economically and socially. According to the journal, Malaysia is a high middle -income country that provides subsidized healthcare to ensure the health of its people is in good condition and does not burden its people in terms of costs and facilities provided (Puteh et al., 2017). The Malaysian government is ready to do its best in providing general hospitals, rural clinics, health clinics in remote districts. This is to ensure that all citizens feel the health subsidy funded by the Malaysian Government. In developing this health sector, some challenges have arisen as the cost of health care appears to be rising in many countries and this includes Malaysia as well. This is because the creation of new diseases and the increasing rate of human population has led to an increase in the production of medicine. The government under the Ministry of Health has provided a total allocation of millions of Malaysian ringgits for medicines placed under government subsidies.

The Malaysian government is doing this in line with according with the progress improvement technology enjoyed by the country and also the increase in human population which is increasing every year, unequal income distribution rate and also the aging human population is the 2nd place in the Southeast Asian region. With the increase in population in the average district can cause a high percentage of the possibilities of patients receiving treatment. The elderly population who on average have a relatively low income compared to those who work will also find it difficult for them to seek treatment if the Malaysian government does not subsidize most medicines. To register as a public patient, they only have to pay a very small amount of money which is RM 1 in a public hospital. The data have proven that respondents who have little household income and little individual income have difficulty paying to buy medicine. The data also says that many of them are unable to afford personal health insurance and are unwilling to pay higher drug prices.

Medical sector in Sabah and Sarawak

Sabah and Sarawak are part of Malaysia and became part of Malaysia on 16 September 1963. Sabah and Sarawak if combined have a larger area than peninsular Malaysia and also have a hilly geographical structure and jungle. The data recorded that Sabah and Sarawak have many rural areas and contribute to the high poverty rate in Malaysia. This is not strange because the geographical surface there is very challenging. In medical sector, equitable health care provision in Sabah and Sarawak also still backward when compared to the peninsula since more than a decade since the formation of Malaysia. They suffer a smaller distribution of doctors and specialist than peninsular Malaysia, a lack of medical centres and amenities that raises the cost in accessing health care and lack of supporting infrastructure that can give them more quality of life. Dr Adham Baba said in Dewan Negara Sarawak recently had 1 doctor for every 682 people last year. This seems to be quite disturbing to the people in Sarawak if suddenly many residents want to get treatment at the same time. Statistics shown that 45.6% or 98 out of 215 rural clinic not provided a doctor and there only has medical assistants and nurse to managed it. These rural clinics also only provided basic equipment and basic medicine such as paracetamol. Many suggestions have been made to place doctoral postgraduates and doctors born in Sabah and Sarawak to be compulsorily placed in their sate of birth.

Therefore, the Malaysian government has planned to improve the level of health in Sabah and Sarawak to a better level. On the news said, the manifesto of Pakatan Harapan in the 14th election that have plan to make improvement for Sabah and Sarawak (*57 Years Later, Do Sarawak, Sabah Enjoy Equitable Health Care.Pdf*, 2020). Pakatan Harapan the government at that time promises to improving the quality of education and healthcare services all the decision-making right under the state government. A conference was held and urged the government in the RMK 12 to make more investment in health infrastructure in Sabah and Sarawak. this is because 1 over 3 people of Sabah and Sarawak have to spend a long-time seeking treatment. This is seen as a very necessary need and they must be handled by full skill staff and doctors. By this RMK 12, shown that Malaysia government taking into the problems in the health sector that faced by Sabah and Sarawak and in the undesirable time to reduce the gap in health standards accepted by the people in the peninsula and in Sabah and Sarawak.

Economy

Malaysia is aiming to become a medical tourism hub in ASEAN.

For the information, Malaysia has used an excellent healthcare system and has been praised internationally. This is driven by the investment made by the government in terms of world -class facilities and also quality human resources. According to the news, Malaysia also aims to be a hub in Asean in promoting medical tourism. The medical sector is also expected to grow to RM 127 billion by 2027 as driven by increased health services from an aging population, increased prosperity and a longer life expectancy of the population. Back in 2011, Malaysia was visited by a total of 640 000 health tourists from Asean. Besides that, the country has managed to generate revenue of RM 1.8 billion and this shows an increase of RM 1.5 billion from 2018.(Ayman Falak Medina, 2020)

With the MHTC (Malaysia Health Care Travel Council) which making relationship with 79 hospitals that from 21 elite hospitals and 58 regular hospitals. This connection within these agencies and hospitals makes it easier for health tourists to choose the appropriate hospital. The agency's role is to provide all -inclusive services for health tourists and help them obtain medical visas from the Malaysian Immigration Department. In addition, MHTC, plays an important role in attracting and achieving Malaysia's aspiration to attract health tourists to seek treatment in Malaysia. There are several efforts that MHTC has done that is to provide accommodation at airports such as at KLIA and Penang airport by give them the cabin hotel at the airports. MHTC also manages their luggage which is checked by CUSTOMS and provides vehicles to go to the hospital.

Most health tourists who come to Malaysia come from Indonesia followed by India, Japan, China, UK, US and the Philippines. The affordable price of the treatment is the main reason why they choose Malaysia to get treatment here. For example, bypass surgery in Malaysia costs 14 000 Usd compared to 23 000 Usd in Singapore and knee surgery in Singapore costs 16 700 Usd compared to 10 900 Usd in Malaysia. Therefore, Malaysia is targeting health tourists from Indonesia because it has managed to get a revenue of 1 billion Usd per year and this is due to the culture, religion and environment that is quite similar to Indonesia.

Malaysia as producer of medical devices and halal pharmaceuticals market.

Along with the development and advanced medical equipment and facilities in Malaysia as well as quality human resources in the health sector. Malaysia has also aspired to be one of the hubs of exporters of medical equipment. In Malaysia, the medical device industry actually includes various industries that come out from rubber, textiles, plastics, machinery and engineering support and electronic devices. According to the journal, Eleventh Malaysia Plan (RMK-11), Malaysia has identified that medical devices industry as one of the high potential growth sectors. This industry targeted to contribute RM 17.1 billion in revenue and RM 11.4 billion in GNI as well as being able to provide 86000 jobs by 2020 (Ju et al., 2020). For information, there are more than 200 small and medium enterprise companies that produce medical gloves. In addition, these companies also produce higher value-added and technologically advanced products such as cardiac pacemakers, stents, orthopedic implantable devices, electro-medical, therapeutic and monitoring devices. The local companies that making the medical equipment are ABio Orthopedics Sdn Bhd, Straits Orthopedics (Mfg) Sdn. Bhd., Vigilenz Medical Devices Sdn. Bhd., Granulab (M) Sdn. Bhd., Hospitech Manufacturing Services Sdn. Bhd., OSA Technology Sdn. Bhd., Top Glove Sdn. Bhd and Kossan Latex Industries (M). Sdn. Bhd. Data shows an increase in the rate of Malaysia's exports to the United States but slightly decreased in 2019 due to the trade war between China and the United States. Malaysia also imports some goods and material from several countries including the United States and processes the material to become more value-added and then exported. Furthermore, many doctors have graduated from the United Kingdom, Ireland, Australia, India, Egypt and Indonesia. This makes doctors in Malaysia easily and understand to use the medical equipment from Europe and Australian

Malaysia is also working hard to be a pioneer in the manufacture, certification and distribution of Halal pharmaceuticals. This is because the global halal pharmaceutical market is set to be worth US \$ 174 billion by 2025. Among the companies that make halal pharmaceuticals in Malaysia under the Chemical Company of Malaysia (CCM) are Pharma Sdn Bhd, Duopharma Biotech Berhad, and Pharmaniaga Bhd which are approved by JAKIM.

Social

Health Consciousness Among Malaysian

As we know, since independence, Malaysia has shown an encouraging improvement in terms of economic, social aspects, aspects of population harmony, cultural aspects and also other. This increase is undeniably very good for the country to achieve the status of a developed country. These processes have caused some disadvantages and also some effects that have resulted in the deteriorating health of the population in our country. In the past, our citizen was not exposed to sweet, high cholesterol, fatty foods and others. This can also be attributed to no mixing of cultures from other cultures that have high cholesterol cuisine. In this day and age too, there are various types of beverages and even food companies that have contributed to the public health index. There are beverage companies such as Tealive, Coolblog, Daboba where their drinks have a very high sugar content and are not suitable for drinking by young and old at a frequent rate. Malaysia has also got the title that is a bit less pleasant to hear that is the country with the highest number of obesity and diabetes patients in Southeast Asia. Industry improvement that come from manufactured factory in our country is also among the contributors to air pollution in big cities which results in many residents suffering from eye and throat irritation.

These things have opened the eyes of the citizen to raise the level of their health awareness to be at better level. This awareness is very important to reduce the rate of obesity and diabetes in our country. This is because, the cost of treatment required for their blood diagnosis is extremely high and this can be inconvenient for the family members to bear the cost of the treatment. This disease can occur due to the modern lifestyle of the present time which causes them to eat not on time and also eat at the wrong time. Based on the web page, the level of public awareness to get better health level have been proven by the profit from the sale of Vitamins and Dietary Supplements in Malaysia which jumped drastically to RM 3.1 billion in 2019 from RM2.07 billion in 2014(Tan, 2019). This is also driven by the community who now on average have high incomes and like adopt a healthier lifestyle.

Universal Health Coverage (UHC) And Income Level

Socioeconomic development in Malaysia, over the past few decades, has led to the improvement and expansion of the public healthcare sector. This sector has provided universal access to a low-priced package of comprehensive health care leading Malaysia to claim have achieved universal health coverage (UHC). However, the Malaysian health landscape is changing rapidly. Nowadays, many people in the urban area demands for the private care because the income level of them maybe not as the people live in the suburb area. The income level also plays a role for the existence of private hospital rapidly. These private hospitals are dominated by the elite as well as the wealthy. This is because, they want better quality care and treatment than public hospitals because were equipped with advanced medical equipment. The rapid development of private hospitals will also have a negative impact on Malaysia in the future as it will disrupt UHC in Malaysia. The government must also balance between private hospitals and government hospitals.

The country is said to achieved the UHC when the population of that particular country has got access to good quality services according to needs and preferences, regardless of income levels, social status or residency. In short, UHC can be achieved when the comprehensive package of health care is made available to the entire population using the public sources of financing without burden the poor people. Malaysia can be the example of middle-income country that already long-established public health care access to a comprehensive package of health care services financed through general taxation. According to the journal, the medical sector in Malaysia has been expanded year by year with the network of public healthcare facilities as much 147 public hospital and special medical institutions and 3034 static health clinics that belong to MINISTRY HEALTH MALAYSIA. The cost of the maintenance also borne by the government between 3% and 5%(Ng et al., n.d.). Indirectly, income level inequality has forced the government to balance the existence of profit -oriented private hospitals with public hospitals that look after the welfare of the people to achieve UHC.

Technology

Rehabilitation robotics

Technology nowadays has improved a lot from time to time into medical sector. The increase of the technology occurred today can also be felt by people with disabilities. These disabled people whether from birth or have been involved in an accident that has caused them to lose one of their limbs and rendered them disabled. In the days before the advent of technology in the production of support tools for the disabled such as hand loss or leg loss, they were only provided with static prosthetic legs and arms which are support tools that are not able to give them many advantages to do a daily job. This tools only want to make sure they look like normal. If the patient is unable to walk or has had an accident and have no longer ability to move like everyone else, they can only afford a traditional wheelchair that requires their own energy to move. This will also cause them to feel stress and self -guilt for being useless for not taking care of themselves and expecting help from others.

The existing tools coupled with a little technology nowadays have given a little bit of happiness to those who need and wear these tools. Nowadays, these tools have been upgraded and have to some extent reduced the limits of jobs that people with disabilities cannot afford to do. According to web page, there are wheelchairs that use motors to allow them to move more easily and farther and also by using this wheelchair make them do a lot of work by themselves(Olanrewaju et al., 2013). In addition, prosthetic hands and leg that have been innovated by put the joints as we named 'bionic hands' can be worn and purchased by those with disabilities to feel that they have the real hand that can helps them pick the things. With these advanced tools, they can return more independent and also be able to return to work. These people can brighten their future back and lead a more meaningful life.

Robotic Surgery

Looking at the rapid development of robots in various sectors lately, the robotics technology nowadays has been seen evolving in the medical sector. The web page said that, the technology of robots in surgery operations that was first introduced in the early 2000s has been seen to increase its use and using this robotic technology has already been favoured rather using traditional ways (Mila Jones, 2020). Most scientists and professional in medical and surgery sector have started using this technology because the laparoscopy surgery in the late 1970s. With this new technology, many patients as well as surgeons have recommended that this robotic surgery rather than traditional surgery

For the information, laparoscopy using a usable robotic that use for the surgery of the abdomen such as tummy and pelvis without the surgeons have to make large incisions in the skin. This situation can reduce the risk that the patients get on that surgery process and also helps them for the quick recovery. The rate of patients in order to be operated on will be fast because surgeons can save their time dissecting patients. High definition such as 3D displays are very helpful to this robotic surgery nowadays because with a small cleavage or tear of the skin, they were able to dissect the patients with the minimal risk.

This robotic surgery is often used against difficult surgery as well as those that do not require large skin incisions. The example of that surgery is the surgery to remove the growth cancer in abdomen or organs of the patients. This type of surgery is very high risk if the surgeons make mistake but this robotics surgery will help to keep low the risk. In addition, the others surgeries are kidney surgery, hysterectomy, prostate, cardia valve and other difficult surgeries. The equipment used uses a high-resolution 3D display that out a small camera of good resolution beyond the human eye to look into the patient's organ when dissecting. The average patient pays more trust to the use of robotic surgery against traditional surgery. Some advantages can help surgeons to save the long- time surgery process because by using robotic time to operate faster and be able to help the patients to feel less pain. In addition, the parts or human organ that difficult to reached can be solved by using this robotic surgery.

Environment

Changes disease and demographic

Every country in the world, regardless of whether it is a developed country, must be prepared to develop the health sector in their respective countries. This is because, a country that wants to achieve a developed country that is a developing country must achieve a global index that confirms they have achieved that status. The growth of the people's population, the growth of public facilities, the growth of the life expectancy of the population in the country and so on. Malaysia is an upper middle -income country although the birth rate in Malaysia showed a decline to 2.1 births per woman in 2012 from 4.9 births per woman in 1970. This caused the percentage of Malaysians aged 15 and under also decreased to 31.8 percent. This will cause the percentage of people aged 65 and above to increase. This situation seen can caused more spending treatment for old generation because at that time they must have a few diseases compared to the young generation.

With various new diseases and infectious diseases in our country today, there are also some things that must be improved by the Malaysia Ministry of Health. This disease actually has been committed by many foreigners who come to the country not by the legal ways to work in accordance with Malaysia government desire to improve the manufacturing industry in Malaysia. Foreign migrants have come carrying viruses and jugs of infectious diseases that can be the dangerous threat to the country. According to the journal, Industrial has made Malaysia the second most urban country in Southeast Asia by increasing the total urban population from 26.8% in 1970 to 71% in 2010(Mohd-Tahir et al., 2015). The rapid conditions that triggering housing problems where many apartment houses had to be built and the existence of squatter houses. Most of the housing area are vulnerable to poor hygiene and easy for them to get infections. This is evidenced by congestion in higher metropolitan hospitals compared to hospitals in smaller districts. The increase in cases of chronic infectious diseases in 1998 also caused social changes to the people because the cost of treatment of chronic diseases was higher than the cost of treatment of infectious diseases.

Clinical waste management

Country with a good health sector should have a good clinical waste management system. Malaysia also has an excellent waste management system and was established in 1980 after the advent of HIV. This initiative took by the Malaysia government through Ministry Health of Malaysia with collaboration with Department of Environment Malaysia with proper policies and guidelines to control and handle infectious disease. In Malaysia, the clinical waste management services are controlled and managed by private organization and supervised under government according to the Scheduled Waste regulation 2005(Yi et al., 2021). The rate for managing clinical waste depends on the rate of country development, amount of patients, economic levels and size and types of medical institution in that particular country.

The clinical waste generation in Malaysia that from healthcare facilities has rapidly increase over a few decades ago and since the presence of Covid-19 making the rate increase in two times. The poor clinical waste management can bring to the disease transmission through infectious agents. Besides that, the harmful waste such as the waste that from hazardous chemical that disposed by putting in special compartment including soil and water and also the improper way in disposed sharp instruments can cause the human injury. For the information, clinical waste in Malaysia was reported about to 33, 000 tonnes per year and on average 1.9kg/bed/day waste produced in Malaysia that come from health care waste. There were some methods of disposal that applied globally such as microwaving, autoclave, chemical disinfection, incineration, etc. Malaysia adopted the method incineration and landfilling. Furthermore, recycling, autoclaving and recovery are not actively adopted in Malaysia.

The data proven that many foreign patients come to get treatment in Malaysia as Malaysia seen very serious in medical tourism and this situation got to the increasing of clinical waste. In addition, Malaysia believed that to have a better healthcare standard and services and also cheaper cost of treatment compared to the others countries. Hence, when the Covid-19 hit Malaysia since December 2019 and make a serious impact on all part of society include clinical waste not excepted. During the Covid-19, Malaysia was reported the increasing as 27% in clinical waste management and the most increase in hospital waste disposal gloves, sharps, needles, personal protective equipment and face mask.

Legal

Medical Device Act 2012

There were some sectors that governed at the federal level by the Ministry of Health that empowered issue the regulations to carry out the function. The sectors are pharmaceutical and medical device sector. There was the Medical Device Authority (MDA) responsibility. Firstly, Medical Device Authority must register and monitoring conformity assessment bodies. MDA also must give the license for import, export and distribution of registered medical devices, monitoring the operation, use and disposal of medical devices, issuing free sale and manufacturing certificates, registering and monitoring conformity assessment bodies and enforcing statutory obligations under Medical Device Act 2012(Lee Lin Li, 2021). The manufacturer, importer and distributor must hold a valid establishment licence in managing all matters of sale and purchase about medical devices. Moreover, if one of them does not meet the prescribed conditions might be subject to a fine up to RM 200,000 or imprisonment up to 3 year or both. The foreign manufacturer must register the medical devices if that was an exporter device. The applicant for registration also must be classify and group the medical device according to the First and Second Schedule to the Medical Device Regulation 2012. They also must prepare the evidence of conformity with the Essential Principles of Safety and Performance of Medical Devices.

Nowadays, the medical devices had implemented some technology by add the software. This can be categorized as health IT and mobile medical applications. By this combination of these things, the communication and Multimedia Act 1998 and Computer Crimes 1997 have been using as general regulatory standards governing use of technological device for medical purpose. The example that can be given when the Covid-19 disease outbreak, many virtual consultations was carried out.

Price Control and Anti-Profiteering Act 2011

In term or controlling prices of medicine, Ministry of Health announced that the ministry will get a hand together with the Ministry of Domestic Trade and Consumers Affairs(Lee Lin Li, 2021). For the information, before this there was no price control mechanism for pharmaceuticals in buying and selling medicine in Malaysia. The price of the product was determined by the free market forces. In public sector, the procurement of buying the medicinal products must through an appointment and the tender must be directly make by the Ministry of Health through a local purchase. This indirectly can provide some for of control over drug pricing. In Malaysia the medical price of medicine is measure by choosing the three lowest prices and the average of that three prices determine the ceiling prices but the countries that be used as references are not decided yet.

In Malaysia, the government provides subsidies for the health care sector. For the information, the government hospitals are provided free or sometimes a very minimal charge from the patients including consultation and medical products that provided by government hospital and clinics. In addition, some medicines might be not available at government hospital and clinics, so come of the patients must obtain these from private retail pharmacies. The individual who works in private sector actually not entitled to get the reimbursement that reimbursement at government hospital. They must pay out to obtain the medical supply and then can claim with they company. This reimbursement has been given to the government officers and also government pensioners, their spouse and they children under 18-year-old. The family of government officers that has children who suffer the disability due to brain defects and physical defects also get this reimbursement.

Conclusion

For the conclusion, the purpose of the SWOT analysis is to identify the internal and also external environments of a company. The internal parts where strengths and weaknesses and external parts where opportunity and threats. By making the Swot analysis, the organizations or companies can identify their strength, weakness, opportunities and also threats to be compared with their competitors.

After Swot analysis and Pestel that I make for Advanced Medical and Dental Institute (IPPT) USM, I can see the strengths, weakness, opportunity and threats that owned by the IPPT that give their more ability compared to their competitors. This swot is useful to these companies for them to further strengthen their position as a sophisticated institution in northern Malaysia. In the future, the management of IPPT led by the director wants to make IPPT a hospital like the HUSM hospitals in Kelantan. With this swot analysis, they can already plan to make it a dream.

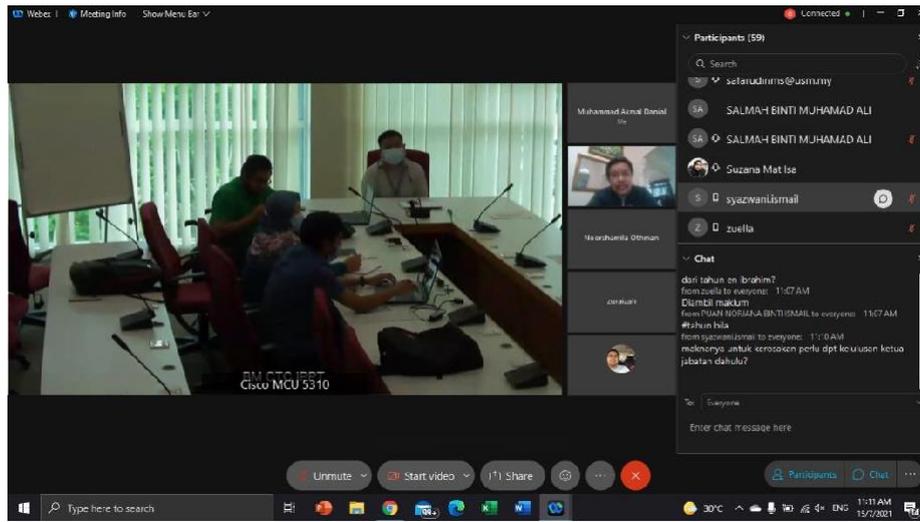
Last but not least, Pestel analysis actually is a frameworks and tools that be used to monitor and analyse the others factors which is macro-environmental factors that may have a profound impact on an organisation's performance. This analysis consists of Political, Economic, Social, Technology, Environmental and Legal. These usually used when an organisation wants to build up a new business in market or foreign market.

References

- 57 Years Later, Do Sarawak, Sabah enjoy equitable health care.pdf. (2020). <https://codeblue.galencentre.org/2020/09/16/57-years-later-do-sarawak-sabah-enjoy-equal-health-care-to-peninsulac/>
- Ayman Falak Medina. (2020). *A Rising Giant in ASEAN.pdf*. Asean Briefing. <https://www.aseanbriefing.com/news/malysias-healthcare-sector-a-rising-giant-in-asean/>
- Ju, J., Wei, S. J., Savira, F., Suharsono, Y., Aragão, R., Linsi, L., Editor, B., Reeger, U., Sievers, W., Michalopoulou, C., Mimis, A., Editor, B., Ersbøll, E., Groenendijk, K., Waldrauch, H., Waldrauch, H., Bader, E., Lebhart, G., Neustädter, C., ... Saillard, Y. (2020). Medical Devices Industry. *Journal of Chemical Information and Modeling*, 43(1), 7728. https://www.miti.gov.my/miti/resources/12._Medical_Devices_Industry_.pdf
- Lakshmi Bala, M., & Jayavardhini, V. R. (2018). A Study on Factors Influencing Employee Retention in Higher Educational Institution. *International Journal of Management Studies*, V(Special Issue 1), 70. <https://doi.org/10.18843/ijms/v5is1/08>
- Lee Lin Li, L. J. X. (2021). *Medicinal product regulation and product liability in Malaysia: overview*. Thomson Reuters Practical Law. <https://uk.practicallaw.thomsonreuters.com/Document/led8bda4c46bc11e798dc8b09b4f043e0/View/FullText.html?transitionType=Default&contextData=%28sc.Default%29>
- Mila Jones. (2020). *Robotic surgery, the game changer in healthcare.pdf*. <https://iopscience.iop.org/article/10.1088/1757-899X/46/1/012041/pdf>
- Mohd-Tahir, N.-A., Paraidathathu, T., & Li, S.-C. (2015). Quality use of medicine in a developing economy: Measures to overcome challenges in the Malaysian healthcare system. *SAGE Open Medicine*, 3, 205031211559686. <https://doi.org/10.1177/2050312115596864>
- Ng, C. W., Hairi, N. N. M., Ng, C. J., & Kamarulzaman, A. (n.d.). UNIVERSAL HEALTH COVERAGE IN MALAYSIA: ISSUES AND CHALLENGES Ng Chiu Wan, Noran Naqiah Mohd Hairi, Ng Chirk Jenn, Adeeba Kamarulzaman Faculty of Medicine University of Malaya. *Faculty of Medicine University of Malaya*, 1–22.
- Olanrewaju, O. A., Faieza, A. A., & Syakirah, K. (2013). Current trend of robotics application in medical. *IOP Conference Series: Materials Science and Engineering*, 46(1). <https://doi.org/10.1088/1757-899X/46/1/012041>
- Puteh, S. E. W., Ahmad, S. N. A., Aizuddin, A. N., Zainal, R., & Ismail, R. (2017). Patients' willingness to pay for their drugs in primary care clinics in an urbanized setting in Malaysia: a guide on drug charges implementation. *Asia Pacific Family Medicine*, 16(1), 1–8. <https://doi.org/10.1186/s12930-017-0035-5>
- Tan, H. S. (2019). *What the Rise of Health-Conscious Consumers Means for Health Supplements in Malaysia*. Janio. <https://janio.asia/sea/malaysia/health-beauty-rise-health-consciousness-my/>

Yi, T. C., Noor, M., & Jusoh, H. (2021). *Overview of Clinical Waste Management in Malaysia*. 1(1), 47–57.

Appendices



Picture 1

I have attend the online meeting



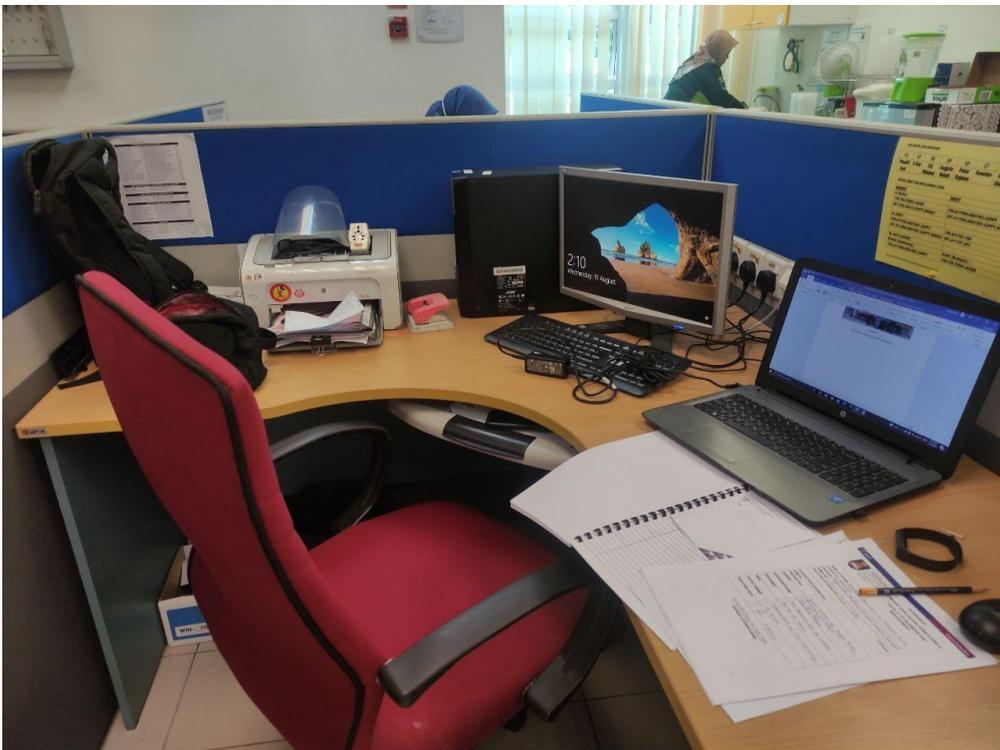
Picture 2

I have attend the online meeting



Picture 3

Hari Raya celebration with the officemates



Picture 4

My table at my office