

Opportunities for Swiss Companies in the Indonesian Medical Devices Market



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This report presents the results of a market study evaluating opportunities for Swiss medical devices manufacturers in different sub-sectors of the Indonesian market. The evaluation considers the strength of Swiss manufacturers as well as trends on the Indonesian health market.

For companies deciding to start marketing their products in Indonesia this report also compromises regulatory requirements and recommends market entry strategies.

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1. Executive Summary

ASEAN countries are expected to be the next most interesting emerging medical devices market in the world. Indonesia alone, with its more than 240 million citizens, represents already one third of this ASEAN market and deserves therefore close attention.

The Study provides market insights to Swiss companies allowing for further decision-making on entering the medical devices market in Indonesia. Recommendations on attractive sub-sectors and niches for Swiss medical devices manufacturers in the Indonesian market have been identified matching the need in Indonesia with the expertise in Switzerland.

Indonesia's demand for medical devices and technology is diverse. In fact, the health sector shows to be a severely underserved market. Public and private health providers are aware of this lack and have pledged to expand and upgrade health services across the country with implications on the respective medical technology and equipment. Changing lifestyles of the middle income bracket has led to a shift towards illnesses in which's treatment western cultures have already experience. Swiss companies should take advantage of the huge market prospects that are at offer. Looking at the supply side, Switzerland is, also in Indonesia, known for high quality and precision technology as well as the innovation culture of the sector.

Five sub-sectors, namely Diagnostic Imaging, Diabetes Care, Emergency Care and Mobile Care, Implants and Orthopaedic Appliances, Respiratory Devices, and two supporting sectors, namely IT Solutions for Hospital Management and Medical Waste Technology, have been identified as immediately attractive to be approached. The assessment of further trends and possible fields of interest has led to additional recommendations and refinement of market entry strategies:

- Be locally present
- High precision branding
- Offer convincing sales and after-sales services
- Win over the doctors
- Start in urban areas
- Cluster your strengths

The Study gives an overview on the Indonesian market for medical devices, including competitor analysis in the respective market, information on product selection and procurement, information on pricing as well as relevant aspects about logistics and distribution. Information about legal aspects such as intellectual property rights and rules concerning foreign and domestic companies has been incorporated in addition. Market prospects for Swiss companies are outlined in a SWOT analysis, including future challenges, and leading to recommendations for a market entry.

2. Methodology and Limitations

The objective of this Study is to provide market insights that can be used as a reference for Swiss companies, which might have an intention of entering the medical devices market in Indonesia. It reflects on how Swiss companies can build bridges towards particular Indonesian market subsectors. The Study is a basis to assist drafting more detailed implementation strategies for particular Swiss companies or clusters of companies to enter the Indonesian medical devices market step-by-step.

Content. The Study provides an overview on the Indonesian market for medical devices, including competitor analysis in the respective market, information on market structure and pricing as well as relevant aspects about logistics and distribution. Qualitative data from major market insiders as well as the Ministry of Health, procurement department of public/private hospitals, health organizations, etc., completed a good understanding about national medical devices policy and regulations. Information about legal aspects such as intellectual property rights and rules concerning foreign and domestic companies has been incorporated in addition. Market prospects for Swiss companies are shown in a SWOT analysis, including future challenges, and thereby deriving recommendations for market entry.

Methodology. To competently assess market entry possibilities for Swiss SMEs, the Study focused the research on two main data gathering methods; firstly desk research and secondly interviews with health sector specialists of different kinds along the supply chain. The desk research built on the review of relevant existing information about the market and regulations on medical devices in Indonesia as well as the suppliers market in Switzerland that could be attracted to the Indonesian market. The medical devices industries are broad and complex in nature. Therefore, the Study made use of internationally accepted HS Codes to cluster sub-sectors of the medical devices market, where appropriate.

Several on- and offline data sources, including webpages, newspapers and magazines, resulted in the compilation of quantitative and qualitative data. The core body of pertinent reports and websites comprised (in alphabetical order):

- Badan Pusat Statistik (Indonesian Bureau for Statistics): www.bps.go.id
- Der Markt für Medizintechnik in Indonesien (Indonesian Market for Medical Technology), 2013, GTAI
- Human Resources for Health Country Profile Indonesia, 2011, WHO
- Jakarta Post: <u>www.thejakartapost.com</u>
- Profil Kesehatan Indonesia (Indonesia Health Profile), 2013, Ministry of Health
- Swiss Medtech Report, 2013, Medtech Switzerland
- The Medical Cluster Booklet 2013-2014, Medical Cluster
- UN Comtrade Statistics: <u>www.trademap.org</u>
- Worldbank Statistical Databank: <u>data.worldbank.org</u>

Information gaps (i.e. information concerning future trends) were addressed in form of expert interviews, and selected hypotheses were tested. For this purpose, representatives of the Swiss Embassy invited to a round table discussion. Invitees comprised relevant representatives from the industry, the Ministry of Health, public hospital, private hospital and distribution services (a complete list of all interviewees can be found in the appendix). Information concerning the medical laboratories, lower class public hospitals, PUSKESMAS and General Practitioners were expected to be covered by the invited parties, in particular the Ministry of Health and the distributors. Those who could not attend the round table were interviewed at their premises.

The outcome of the interviews and the assessment of relevant data in form of a SWOT analysis resulted in recommendations on attractive sub-sectors and niches for Swiss medical devices manufacturers to enter the Indonesian market.

Limitations. The Study was conducted within a limited timeframe of three weeks to facilitate fast availability of information to Swiss companies wishing to get an early overview on existing market prospects and niches. Data availability was limited in this period. In particular, data access regarding local production of medical devices or new developments, such as the implications of the universal health insurance coverage, was insufficient. Corresponding standard lists for hospital and laboratory equipment have been under review and therefore not been available for the assessment of market prospects. Also, not all invited interviewees have been available in this timeframe. When discussing potential sub-sectors of interest for market entry, focus was laid on only highly attractive medical devices sub-sectors for Swiss suppliers. Niches were identified narrowing down the potentially attractive sub-sectors from both ends: the supply side (expertise in Switzerland) and the demand side (demand in Indonesia). Respective focus areas are discussed in the subsequent chapter.

3. Indonesia's Medical Devices Market

3.1. OVERVIEW

According to Medical Device Business, published in January 2014, ASEAN countries could be the next most interesting emerging medical devices market in the world. Indonesia with its more than 240 million citizens represents one third of this ASEAN market and deserves therefore close attention. Serving the nation is a huge challenge often liked with obstacles in related fields like lacking connectivity and basic infrastructure. A fact that was given attention to in this study as well.

Market insiders expect the Indonesian medical devices market to reach a market volume of US\$ 1 billion soon. With its market volume of about US\$ 600 million in 2012, and approx. US\$ 750 Million in 2013 as well as an annual growth rate of 15% annually over the last decade participating in the market looks tempting. On top of that, when comparing the Indonesian medical devices market internationally, its volume is still only of a similar size as the one in Hungary, an economy with a population size of only 4% of the Indonesian population. Hence there is a huge potential for future growth presumed.

Potential buyers for medical devices from Switzerland in Indonesia are public and private hospitals, PUSKESMAS (public primary health care centers), general practitioners, laboratories and pharmacies. The standard of the health services and the respective equipment needed differs depending on the type of hospital (class 1 to class 4). While the 9,510 PUSKESMAS address primary healthcare issues, the 2083 hospitals offer services from primary up to tertiary class. 468 of the hospitals are privately owned, profit oriented hospitals. They aim at providing services for the middle and upper income bracket. However, patients of this income bracket seeking quaternary or complex tertiary health services tend to have these treatments conducted in the neighboring countries of Indonesia – a challenge taken on in particular by some of the biggest Indonesian conglomerates.

3.2. SUB-SECTORS

Indonesia still relies predominantly on imports to support its needs for medical technology. Depending on different methods of deriving statistical data, between 70% and over 90% of the market's total value result from imports, with 90% of all 2013 device registrations belonging to foreign manufacturers. Meanwhile, the current market penetration of Swiss manufacturers in Indonesia amounts to less than 1.5% in 2012 and with 1.77% not much higher than this in 2013. Swiss manufacturers of medical devices and technology are presumed by local experts to be qualified for achieving higher rates and therefore should take advantage of this dynamic, growing market. When identifying potential sub-sectors and niches for Swiss manufacturers, key demand areas and needs have been matched with the major sub-sectors of Swiss expertise. Switzerland is known for producing a broad range of medical devices by around 1,600 companies, assuring high precision, high quality and a high innovation capacity. Apart from the 50 larger companies of more than 250 staff, most of the Swiss medical devices manufacturers are small and medium enterprises (SMEs); a fact paid closely attention to in this study.

Key medical devices sub-sectors in Indonesia comprise the following:

Figure 1: Key medical devices sub-sectors by import share (2013)



Source: UN Comtrade

Indonesia's medical devices imports have grown in all above mentioned sub-sectors over the last decade. Naturally, not all sub-sectors are of relevance for Swiss manufacturers and therefore some have been excluded from further analysis in this Study.

This is the case i.e. for 'Consumables'. Despite their importance for Indonesia in terms of import value, supplying consumables comes along with facing high price competition from neighboring Asian countries and more and more strongly from those competitors delivering from China. According to market insiders, consumables are very price-sensitive and it is not expected that Swiss suppliers will be able to be competitive. A similar situation consists within the sub-sector of 'Medical Furniture and Wheelchairs' where Chinese suppliers are by far the most important importers into Indonesia.

The sub-sector 'Dental Care' is not expected to grow beyond its negligible size within the next years, as the attention towards dental health is not expected to increase in Indonesia as much as in other sectors. For treatments that are possible to undergo in neighboring locations like Singapore, Bangkok or Kuala Lumpur that are well known for high quality medical standards travelling there seems more favorable. This is why this sub-sector has been excluded from the Study.

Insufficient statistical data availability has limited a final evaluation of additional prospect business opportunities beyond those that will be laid out in this Study. This is in particular the case for the sub-sector of 'Other Types Of Medical Devices', which accounts for about one third of the total market volume and might offer several potentially interesting very specific niches, e.g. and presumably for products of the dermatologic or ophthalmic field and others.

Based on current observations and trends, for the purpose of this Study, the following sub-sectors have been identified as attractive sub-sectors for Swiss medical devices manufacturers to enter the Indonesian market, and to which Swiss companies should pay immediate attention. They will be introduced in alphabetic order.

Table 1: Indonesia's medical devices imports by sub-sectors in US\$ million

2003	2008	2013
22.6	99.5	144.2
0.8	81.1	127.8
2.4	7.1	55.3
0.5	0.5	2.4
15.8	50.3	51.7
3.6	17.0	33.1
	2003 22.6 0.8 2.4 0.5 15.8 3.6	2003200822.699.50.881.12.47.10.50.515.850.33.617.0

Source: UN Comtrade

3.2.1. Diagnostic Imaging

Diagnostic imaging devices significantly lead the import market representing almost one quarter of all imports. It is expected to grow further dynamically due to the increasing number of hospitals as well as the relatively high share of non-communicable diseases that require diagnostic imaging devices for their diagnosis. According to interviewed insiders from hospitals, it is expected that the amount of hospitals could triple over the next decade. Private as well as public plans for new hospitals will ensure the demand for those diagnostic imaging devices which are standard equipment in general hospitals. The growing share of non-communicable diseases and a growing number of people demanding secondary health care might be leading soon to a growing number of specialized clinics for cardiology, pneumology, diabetology and thereby creating the need for devices used in the diagnosis as well as the treatment of the respective diseases.

The very reputable image of Swiss products should give medical devices manufacturers from Switzerland a good chance for entering the Indonesian market, as for the highly sophisticated devices of this sub-sector, quality has been named often to be the most important selection criteria. This sub-sector therefore could be of great interest for Swiss manufacturers as there is less price pressure than in other sectors and high margins seem to be achievable. As there is almost no local production of diagnostic imaging devices, almost 95% of the devices are imported. The important role that quality plays in this sub-sector is shown by the fact that Germany and the USA are currently the most important importers.

Another opportunity might arise, because the Indonesian government plans to increase the level of health services in remote areas of its archipelago that spreads out over 17,000 islands and is of similar geographical dimension as the USA. Consequently, and depending on the details of the implementation programs deriving from such plans, there could be chances arising to supply diagnostic imaging devices from time to time and in smaller or larger quantities.

In 2013 the import of diagnostic imaging devices amounted to US\$ 144.2 million with a growth rate of more than 12% in comparison to 2012.

3.2.2. Diabetes Care

One of the major non-communicable diseases in Indonesia is diabetes. By the end of 2013, about 7.6 million Indonesians were suffering from diabetes with an expected expansion of 6% per year; Indonesia is a country with a population growth rate of about 1.5% annually. Even though most of the people who were diagnosed with diabetes received treatment, for only less than 2% of them the desirable treatment targets have been actually met. This is caused by, among other reasons, an extreme lack of doctors - only 64 endocrinologists are practicing in Indonesia. This lack of professional expertise gives the chance for introducing effective home treatment solutions on the market.

An integrated solution for the home treatment of diabetes that would provide education as well as high quality technical solutions for easy determination of blood glucose and insulin injections could be successful in the

market. This integrated solution could be designed by an innovative structure of Swiss manufacturers using the expertise and network of the Swiss medical devices and health industry.

Finally, rising per capita numbers as well as recent government initiative to widen the base of Indonesians being covered by insurances should very soon lift the demand for diabetes care treatment and related medical technology.

Due to the cross-cutting nature of the sector (items listed under different HS Codes), no precise data on the market volume for Diabetes Care was available for the Study.

3.2.3. Emergency Care & Mobile Care Devices

Emergency care devices, typically found in Intensive Care Units (ICU), have to be of the highest quality and have to be ready for reliable use at every given moment. That is why ICUs of Indonesian hospitals are usually equipped with devices from high quality suppliers. The increased awareness for health services goes along with a growing number of emergency care facilities. Furthermore, representatives of private and public hospitals were stating that, unlike other hospital departments, the emergency care rooms of their newly built hospitals are not yet fully equipped. This shows that the Indonesian market for emergency care devices is not yet completely served. Swiss companies could support serving and rounding up this growing demand of emergency care devices.

The same applies for the equipment of mobile health facilities. The insufficient infrastructure of local health services in some remote areas of the archipelago lead to the development of mobile health stations in trucks, helicopters or even boats. Equipping these health vehicles is demanding for devices that, to a certain extent, need to be adapted to the mobile use. Swiss research and development capacities could provide solutions for such mobile health service vehicles and even the experience of rescuing vehicles for the Swiss Alps could be applied for such mobile solutions, possibly and looking forward in combination with telemedicine.

Devices for emergency care and mobile care are found in several sub-sectors, which is why statements on precise figures for market volume and growth are limited.

3.2.4. Implants and Orthopedic Appliances

The sub-sector of implants and orthopedic appliances appears currently as another big and fast growing subsector of the Indonesian market for the future. The demand for products of this sub-sector is driven by increasing per capita income that has doubled since 2007 and increased private per capita health spending making more complex treatments feasible for a broader range of people.

According to market insiders, the purchase decision for implants usually lies with the doctors themselves, making it important for the suppliers to be close to the doctors and create a strong branding for their products. The country of origin effect can support creating this strong branding for Swiss products as the country is known for quality and precision. Some Swiss manufacturers (e.g. Mathys) already introduced products with these features in Indonesia which is why market prospects should look good for additional Swiss implants and orthopedic appliances. It is also a sector where several Swiss manufacturers have already experience in exporting their products to Asian countries.

Market insiders stated that, in the implant market, a comparably low price is important as Indian companies have entered the market putting pressure on the general pricing. But besides the price, quality and adaptability of the products are still crucial for succeeding in this sector.

The import in the sector of implants and orthopedic appliances in 2013 amounted to US\$ 127.8 million. The strong growth started in 2007 when the import volume amounted to US\$ 3.4 million only.

3.2.5. Respiratory Devices

Swiss companies are strong in the field of respiratory devices. Even though the general presence of Swiss medical devices in Indonesia is of very small size, in this sub-sector, Switzerland is already the number two

importer country to Indonesia, after the USA. The overall growing demand for respiratory devices will give Swiss manufacturers the chance to increase their exports to Indonesia.

Similarly, like 'Diagnostic Imaging', the future demand for 'Respiratory Devices' will be driven by newly built general hospitals creating the need for artificial respiration devices, and by specialized clinics specialized on pneumology in need of therapeutic respiration devices.

Imports in this sector have almost quintupled since 2010 and amounted to US\$ 55.3 million in 2013.

3.3. SUPPORTING TECHNOLOGY

Medical devices applications in Indonesia should be seen in respect of the specific Indonesian context, a country that reformed politically, economically and even culturally a lot since the Asian crisis at the end of the last millennium. Indonesia is a member of the G20 and experts like McKinsey and others believe it will belong to the world largest economies in 10 to 20 years. Indonesia today is not only a very resource-rich country, it is a country with a very broad range of production industry and services already. It might be famous for its beautiful beaches in Bali, but it should be recognized as one that has become hungry for modern lifestyles and international standards as well. Therefore, in this chapter 'Supporting Sectors' of medical devices are given attention as an excursion to closely related fields, particularly as Swiss technological expertise therein is provided.

3.3.1. IT Solutions for Hospital Management

Swiss companies are well-known for offering a high level of expertise in the field of hospital-related information technology systems and applications (IT). In Indonesia, so far and typically, older hospitals have developed individual Health Information System (HIS) that cannot be integrated with other systems, which is why newer ones are very much interested in finding open software systems that are able to integrate data generated by ideally all medical devices utilized within the hospital operations.

Evaluating the current developments on further IT support, Indonesia's demand particularly matches in the area of Health Information System (HIS)/ Electronic Medical Record (EMR) and Telemedicine.

IT for Health Care Providers. According to the Ministry of Health and hospital insiders, there is a big need for improved data management within the health care system. There is no nation-wide standardized IT system for hospitals yet, making it difficult to transfer patient data from one to another hospital. Even within the hospitals, the data of different departments are often not compatible yet. To deal with this issue, the Ministry of Health plans to develop a nation-wide standard IT solution for hospitals (National HIS). This shall be applicable for hospitals of all kind, incl. the primary health care centers PUSKESMAS. Even large private hospital groups are struggling with the implementation and would welcome Swiss solutions. A strong competition could be Samsung who has started to reach out to Indonesia to sell HIS services in early 2014.

At the moment of the Study, an electronic (ID-based) medical record information system was being discussed. Ministry of Health representatives stated that, by the end of 2014, solutions shall be found to standardize the data communication and data set which integrates both the existing HIS and the Social Insurance Agency BPJS (*Badan Penyelenggara Jaminan Sosial*, in charge for the universal health insurance scheme) in form of a platform which is online and offline available and which allows a single patient identification number. The new software solution shall also be compatible with the electronic planning and procurement tools implemented by the Ministry of Health to create more transparency in the medical devices and equipment market. An exchange of experience with specialists in these fields would be considered a first desirable basis for a future collaboration.

Telemedicine. Automatic transmission of medical data can now be performed flexibly either through an internet connection, cellular platform or a regular landline, and can be adapted to the personal needs of the users and their various telemedical devices. This provides huge potential for connecting to remote and distant rural areas and islands that have otherwise limited access to health diagnostics. Telemedicine can improve access to medical services that would often not be consistently available to those communities. Challenging will

be to ensure connectivity; e.g. broadband telephone connections are usually available in the bigger cities and islands, whereas the remote areas do not have the luxury of reliable telecommunication systems with transmission capacities allowing streaming of bigger sets of data. Also, in the rural areas, fewer people might understand the telemedicine concept yet, hence more comprehensive educational services for direct and indirect customers, doctors and patients, would need to complement the sales activities.

Connecting remote patients to a central diagnostic system through other mobile devices such as blood pressure monitoring, weight monitoring, spirometer, glucometer or pacemakers through mobile technology could reduce the need for outpatient visits and enable remote prescription verification and drug administration oversight, potentially significantly reducing the overall cost of medical care. The possibility to receive and analyze data of the patient for all doctor with access the system, decreases the dependency of local communities from the locally available general practitioner or health facilities and hence has significant potential to decrease the probability of corrupted behavior. The expected consolidation trend in Indonesia to synthesize the number of operating – and less skilled – general practitioners requires exactly this.

Telemedicine is increasingly gaining significance for clinics and surgeries. Recent developments in mobile collaboration technology can allow healthcare professionals in multiple locations to share information and discuss patient issues as if they were in the same place. This can tide over Indonesia's lack of experienced professionals in this field.

The government (Ministry of Health) has started with making available a tele-radiology which has been installed in 2012 in PUSDATIN and which provides diagnostics services to those hospitals that do not have the adequate doctor. The need for further telemedicine solutions have been indicated by Ministry of Health, e.g. telepathology. Telemedical devices can also facilitate Indonesia's medical education by allowing health workers to observe experts in their fields (e.g. in teaching hospitals) and share best practices more easily.

In this context, also collaboration between public hospitals and foreign clinics can become possible under newest regulation. Public government health facilities are now classified as Public Service Agency BLU (*Badan Layanan Umum*) or BLUD (*Badan Layanan Umum Daerah*) and their collaboration with foreign health institutes or research centers is encouraged (guidelines pending at the National Planning Ministry BAPPENAS). Interesting fields for this form of collaboration are tele-specialist treatments and tele-rehabilitation, e.g. Sloan Gleneagles Hospital in Jakarta which is in constant communication with its Singapore counterpart using telemedicine services to enable direct consultations between doctors in Singapore and patients in Jakarta.

Cross-cutting in nature, comparable to the emergency care and mobile care segment, market volume and growth figures for 'Supporting Technology' in Indonesia are not available in numbers. However, the growth potential of the segment is apparent, and some Swiss companies have shown strong expertise in this field. Reportedly, there has not been any import from Switzerland to Indonesia yet. Strongest competitors worldwide in the telemedicine devices market would be coming from the US, Scandinavia and India.

3.3.2. Medical Waste Technology

Management of medical waste is the direct responsibility of the hospitals and other producers such as laboratories, clinics, drug stores, etc. Along with the generally expected growth of the health care and medical devices sector, the country's medical waste per capita is set to increase as well. Also, Indonesia's regulatory environment has now placed an obligation on hospitals and healthcare industries to use licensed providers for correct waste handling. Two critical types are liquid and non-liquid hazardous materials that may be infectious, toxic or radioactive (abbreviated as B3 in Indonesian, such as infectious human waste, used syringes and chemical waste). It is the Indonesian Ministry of Environment that administers and enforces the legal and regulatory framework in the area of waste and especially hazardous waste management.

Standards have been set already on high levels and tend to raise further, creating a need for expert and tailormade solutions. For instance, as a response to the Green Hospital Policy (see below "Policy and Industry Trends"), the majority of Indonesia's PUSKESMAS and hospitals is now also in need of a modern and functional medical waste management system and waste water treatment unit (EPAL Installation) in the short-term and effective energy/water conservation solutions in the medium-term. In view of the Indonesian low-emission policy, waste management using incinerators will be banned in the medium term which implies a step-by-step replacement of incinerators by alternative solutions such as shredding and sterilization to prepare the remains for municipal waste.

No precise data on the market volume and growth for the medical waste technology segment is available. Selected prospects can, however, immediately be tapped in. Siloam, one of the leading private hospital groups in Indonesia holding in total 3,436 hospital beds across Indonesia, indicated to be interested in becoming the first mover in low emission medical waste disposal and would be ready to engage with Swiss manufacturers into talks about possible solutions.

3.4. PRODUCT SELECTION & PROCUREMENT

Hospitals have been identified as the major target group for Swiss manufacturers. Procurement decisions there depend on the nature of the medical device and very often on the doctor's familiarity/education. Doctor-specific medical devices e.g. surgery instruments in most cases depend on the doctors' preference only. Even in the case of non-doctor-specific medical devices, e.g. implants, operation material, often it is only the doctor's preference and familiarity with the product on which the decision to purchase/use a product depends. The actual decision is in most cases made by the senior doctors, and the junior doctors would follow.

In private clinics, the tender procedure takes into consideration the full package i.e. from price to sales and after sales services. In fact, those cover many aspects such as price, quality and reliability of the product itself as well as services like maintenance, repairing and training. In only a few cases, e.g. private patients or upmarket clients, could influence on this decision. Also, it is yet to show if and how the new universal health insurance will influence on the product preferences.

Medical devices are usually paid by cash payment and payment modalities like a finance scheme over a longer period of time are still uncommon even though market insiders stated that there is the possibility that such payment modalities could be needed in the future.

In the case of public hospitals and health centers, the procurement scheme ("*e-catalogue*") is currently changing from tenders to an e-procurement system. The e-catalogue is based on an internet platform where local manufacturers and distributors can have their products listed at a price that is fixed for a certain period of time, i.e. 6-12 months. Hospitals can directly procure from this list. This system is supposed to increase transparency in the hospital's purchasing decisions as well as putting pressure on the prices. According to the Ministry of Health, these fixed prices could still be negotiable as the listed prices would indicate the maximum price assuming highest possible costs for logistics. The current acceptance by companies and distributors is still low, but the expectations are high eventually to be able to prevent procurement decisions being influenced by corrupted behavior.

While the market is price-sensitive for those few segments where domestic production is available, which is at this moment limited to 'Consumables' and 'Simple Devices', for higher sophisticated devices, quality criteria such as precision and life-time, sales and after-sales services like training and maintenance often outweigh the price factor in a purchasing decision. In fact, medical technology experts stated that e.g. China's low-price strategy has not yet been successful, and that instead the buyers in Indonesia preferred quality in all aspects. As a result, medical devices are being imported often from countries where Indonesians would have studied or attended conferences or exhibitions. Having said that most interviewees were hardly aware of any presence of Swiss medical devices brands in the Indonesian market.

3.5. COMPETITOR ANALYSIS

The import statistics for medical devices show that more sophisticated devices tend to be imported from high tech countries while simple devices as well as disposables often originate from China or are locally sourced.

The total imports of medical devices had a volume of US\$ 623.5 million in 2013. Two third of this volume originated from the five countries listed below including the key features of the countries' industry.





Source: UN Comtrade

The countries are ordered by decreasing market share.

Singapore. Singapore plays a special role in the Indonesian import market. About one quarter of the Indonesian imports officially come from Singapore. Nearly all of them in the sub-sector of implants and orthopedic appliances. But these figures are biased by the fact that Singapore is used as a trading hub in ASEAN for many suppliers actually originating from other markets.

China. The Chinese medical devices industry is of growing importance for the world market, exports accounted for a volume of US\$ 10.7 billion in 2013 out of which devices worth US\$ 72 million were exported to Indonesia making China the second most important importer into Indonesia, after Singapore. Chinese products (e.g. medical furniture and wheelchairs) are known for low prices, but do not have a high quality image yet.

Japan. Japan's home market is one of the biggest health markets in the world, but the local production of medical devices is not sufficient to cover the demand, consequently Japan is actually a net importer of medical devices. Nevertheless exporting Japanese companies are strong in the field of diagnostic imaging and other electric devices. These groups account for almost all the exports, which had a total amount of US\$ 6.4 billion in 2013. Exports to Indonesia were also mostly realized in these sectors, which had an overall volume of US\$ 66.5 million. A key advantage of Japanese products is not only their local distance to Indonesia making the repair of devices in very short time possible, but also the fact that they are engaged in Indonesia much longer than many other international competitors already.

Germany. Germany is the biggest European producer of medical devices. As German engineering is highly appreciated throughout the world, Germany is one of the world's most important producers of high tech medical devices. Besides some very big companies ranked in the top ten of the world, 95% of the companies are of small or medium size and have less than 250 employees. About two third of the medical device sales were realized outside of Germany. Total exports in 2013 amounted to US\$ 24.8 billion. The most important export markets are other European countries and the USA, while exports to Indonesia comprised a volume of US\$ 64.6 million. Key products of German origin are x-rays and other diagnostic imaging devices.

USA. The USA is the biggest producer of medical devices in the world. In fact, six of the ten biggest medical devices producing companies are of US-American origin (Johnson & Johnson, General Electric Co., Medtronic Inc., Baxter International Inc., Covidien plc, Cardinal Health Inc). High investments in research and development and the location of the companies in high tech industry districts are leading to very high quality of the products. However, three out of four companies have fewer than 20 employees. Their exports to the world amounted to US\$ 41.7 billion in 2013, while medical devices of a value of US\$ 58.2 million only were exported to Indonesia.

Other countries. Several insiders have indicated during the interview and round table discussion that due to the fact that the Indonesian medical devices industry is gaining the interest of more and more suppliers, namely from Korea, India and European countries, this competitor structure might chance to some extend over the upcoming period of continued strong growth.

3.6. LOGISTICS AND DISTRIBUTION SERVICES

With an archipelago of more than 17,000 islands, medical devices trade with Indonesian health facilities is challenged with land and sea logistics. Domestic logistics costs can easily triple international transport costs. Both Indonesian and ASEAN competition policies currently put a high emphasis on improving logistics and connectivity.

The easiest and most common way to import medical devices into Indonesia is through a local distributor, as they add value through their network and market experience. It is key to choose a good distributor right from the beginning as changing might be difficult later on (see more details Chapter 4, Regulatory Overview).

Private hospitals either procure through distributors or through direct procurement from the foreign company in form of strategic partnerships with manufacturers through their sales agents. The latter is sometimes preferred (e.g. GE, Philipps), but size plays a role to flexibly accommodate the hospitals' needs as well leaving niches for specialized suppliers that are smaller. Consequently larger distributors are always interested in rounding up their portfolios with additional manufacturers that can close gaps with their products.

3.7. HUMAN RESOURCES

Human resources in the Indonesian health sector at large are lacking both in quantitative and qualitative terms. In fact, according to experts, the insufficient number of doctors can be a real bottleneck for the future development of the Indonesian health system and, according to the Ministry of Health, shall be given more attention than before.

The overall workforce in the health sector today amounts to around 570,000 medical workers, plus the approx. 140,000 staff working in the health sector's administration. Currently and according to latest statistics available, the medical workforce comprises of 77,523 doctors, 235,000 nurses, 126,000 midwifes, 31,223 pharmacists and 97,904 other health workers. Foreigners are not allowed to work as a doctor in Indonesia with the only exemption that trainings of local staff conducted by foreigners, as allowed e.g. at the SOS Medika Kliniks in Jakarta.

The average ratio of general practitioners is 36.1 per 100,000 people, but this ratio faces a high disparity between rural and urban areas: The Province DKI Jakarta with its 10 million inhabitants - has a ratio of 149.5 per 100,000 while the remote area of West Sulawesi has a ratio of 8.9 per 100,000 only. Especially young doctors tend to work in urban areas as salaries and the standard of living are higher. Meanwhile, and despite

lacking human resources, the number of hospitals and health facilities is strongly increasing, and the overall quality of the health facilities shows scope for improvement. By March 2014, only 10 hospitals were internationally accredited out of which 8 are located in Jakarta or near Jakarta. As a consequence, the competences and skills of doctors and nurses to use sophisticated medical devices are partly lacking.

This disparity is also reflected by the number of universities having a medicine faculty. Including dentistry faculties, there are 103 faculties offering study programs for medicine, 79 are on Sumatra and Java. The number of Indonesians studying medicine abroad is still quite low. This leads to an overall significant deficit of education in the health sector - a challenge for the government as well as private players.

3.8. INDUSTRY TRENDS

The import of medical devices of different kind to Indonesia offers prosperous prospects for Swiss manufacturers. This is due to different developments:

First of all, hardly half of the steadily growing demand for health services can be met already by the current capacity of health facilities and availability of experienced doctors/nurses, and the health services in demand are highly diverse in nature. Minimum service standards for health services have been introduced in 2008 and, since then, not all existing health facilities have been able to meet yet the standard requirements and equipment lists. Hence there are currently underserved health facilities.

Secondly, the newly introduced universal health insurance coverage JKN (*Jaminan Kesehatan Nasional*) – which is scheduled to be set up by the end of 2014 and shall cover all Indonesian citizens by 2019 - is expected to further increase the demand for basic health services as currently less than 2/3 of the Indonesian population holds a health insurance. It will be mandatory for all Indonesians to join it and to pay a share of their salary/wage as insurance premium. For those who cannot afford the premium, the government will cover it.

Thirdly, a growing middle class in Indonesia is increasingly caring for health. While the share of health expenditures of the Gross Domestic Product (GDP) only increased little over the last years (2.7% in 2011 compared to 2.2% in 2001), considering the fast growing GDP of approx. 6% annually, absolute spending on health services has increased by 17.5% (US\$ 95/year in 2011 compared to US\$ 16.6/year in 2001). It is estimated that the country's per-capita healthcare spending will reach almost US\$ 150by 2015.

Table 2: Health care spending in Indonesia, comparing 2001 and 2011

	2001	2011
Share of health expenditure of GDP [%]	2.2	2.7
Absolute spending on health services [US\$/year]	16.6	95

Source: Worldbank

As a consequence, being aware of this shortage, both public and private health services providers are currently on a significant expansion course and upgrading throughout the country. From 2011 to 2012 more than 350 hospitals were built, leading to a total number of 2,083 hospitals in Indonesia. The growth especially takes place in the sector of specialized and private hospitals. By 2025 about 5,000 new community health centers shall be built and the number of hospital beds shall be increased by more than 330,000. If so, the extended and new built facilities will all need to be equipped accordingly.

At the same time, the Indonesian health market will face an overall consolidation leading to a reduced number of general practitioners practices (due to liability issues and lack of meeting health minimum standards) and more health facilities with increased sizes. The divide between the health infrastructure in urban centers and availability of medical services in rural areas shall be softened.¹ These plans of increased public spending on health is expected to grow Indonesia's healthcare industry from US\$ 25 billion to US\$ 50 billion by 2020. A

¹ Requires innovative and holistic concepts in rural areas– such as seen with Siloam – which include private investment in not only the hospital building but also the complementing infrastructure to self-supply electricity/energy and water & sanitation when building new clinics.

growing size of the individual health facilities will more and more require their units to operate in a costefficient manner, minimal invasive health treatments and high-tech devices can support this efficiency. At the same time, bigger health facilities will require medical equipment for higher quality treatments.

In addition to that, Indonesia is prone to a high probability of suffering natural disasters (earthquakes, volcano eruptions, floods) in several areas in the country. These events may require reconstruction of medical infrastructure, and thus imply additional demand for medical equipment, clinical lab and diagnostics instruments, and other medical products.

With a growing welfare and increased hygiene, the picture of Indonesia's health challenges will change in the next 20 years, and so will the required medical devices. Increased lifespan and growing incomes of a rising middle class have led many to adopt "Western" habits—such as overeating, consuming fast food and food with high sugar levels, smoking, and engaging in little exercise. This puts Indonesians at an increasingly higher risk for lifestyle diseases; the rates of diabetes, orthopedic problems, cardiovascular disease, and cancer are rising quicker than in other countries. While cardiovascular diseases will also in the future hold a considerable share and therefore already now reflect a huge potential for market penetration and scale, the relative importance of communicable diseases will decrease by almost half. Chronic diseases and cancer will therefore increase most likely in probability.

Table 3: Health challenges in Indonesia, comparing 2010 and 2030 (reasons for death)

	2010 [IN %]	2010²	2030 [IN %]	2030
Cardiovascular diseases	30%	428.000	31%	679.000
Communicable diseases	25%	356.000	13%	285.000
Other Chronic diseases	21%	299.000	28%	614.000
Cancer	13%	185.000	18%	395.000
Others	11%	157.000	10%	219.000

Source: Pardey Center

This development asks increasingly for the use of more sophisticated medical devices, for which among others also Switzerland is well-known for.

According to the Ministry of Health, in 2007 more than 100,000 Indonesians went abroad to seek medical assistance, especially in Singapore, Malaysia and China.³ Indonesian patients have contributed more than US\$ 600 million to those countries every year since 2003. In 2008 alone, Singapore gained approx. US\$ 2 million from Indonesian patients. Expert opinions estimate that in the near future this medical tourism, especially for complex treatments, will likely continue. This will limit to some extend the Indonesian health market growth to basic services of primary, secondary and parts of tertiary care. Rehabilitation, however, can take several months and hence would often be too costly for Indonesians to be spent abroad. This example shows that some medical devices sectors can be more or less interesting markets to be served by Swiss manufacturers of specialised medical devices already today or perhaps tomorrow as well. In addition to the outbound health treatment tourism of Indonesians going abroad, inbound tourism from Australia or New Zealand especially for rehabilitation services i.e. on Bali or much lower costs of surgeries in Jakarta could develop over the next decade and influence the Indonesian medical devices market significantly.

Also Indonesia's climate policy is a potential driver for medical devices imports from Switzerland. The Indonesian government's commitment to lower the nation's greenhouse gas emissions by at least 26% by 2020

² Own calculations based on 2010 figures from Indonesian Association of Medical Doctors IKATAN and Frost & Sullivan (2012): "Indonesia and Vietnam Healthcare Outlook 2012", p.10, with 237.6 mio. people in 2010 and a mortal rate of 6 per thousand compared to and estimations on a population of 281 mio. people in 2030 and a mortal rate of 7.8 per thousand, data source: Pardey Center (<u>www.ifs.du.edu</u>). ³ Jakarta Post (2010).

along with rising energy (and water) prices in Indonesia could make hospitals evaluate their consumption thus making the energy (and water) use of medical devices an important selection criteria.

In fact, by 2020 all hospitals in Indonesia should be Green Hospitals, which already includes aspects related with resource-efficient operation of the hospital and reducing the negative impact on its surroundings, among others through efficiency in water and energy use, and minimization of air pollution, use of recyclable and non-hazardous building materials and other resources, and the reduction of harmful waste.⁴

Market segments like this provide potential for Swiss manufacturers to position themselves as pioneers and first movers. There is a range of financial incentives available for the buyers of new (incl. climate-friendly, resource and/or energy efficient) technology. While this does not directly benefit the Swiss manufacturing industry, and while accessibility of these incentives is sometimes not desirable (due to the long application procedure), it could be a sales argument when addressing the Indonesian buyers.

⁴ MOH (2012): Menerapkan Green Hospital di Rumah Sakit, see:

http://buk.depkes.go.id/index.php?option=com_content&view=article&id=324:menerapkangreenhospitaldirumahsakit&catid=1:latest-news (accessed on 15.03.2014).

4. Regulatory Overview for Market Entry

4.1. ASEAN REGULATIONS

To facilitate the trade of medical devices with ASEAN and to unify standards in the medical devices industry, in 2004, the ASEAN Consultative Committee on Standards and Quality (ACCSQ) has set up the Medical Device Product Working Group (MDPWG). The MDPWG 's task is to create a harmonized set of standards for medical device registration and post-market surveillance throughout the ASEAN region.

The MDPWG's most recent draft regulations – the ASEAN Medical Device Directive (AMDD) was published in 2012, its implementation is expected by December 2014. The AMDD lays out basic requirements for a harmonized classification system, medical device safety and performance, conformity assessments and a Common Submission Dossier Template (CSDT).⁵

The AMDD shall act as a model for member nations, much like the EU Medical Device Directive, and is not a legally binding document. The current AMDD was developed with input from member countries, industry representatives and international regulatory bodies like the Global Harmonization Task Force (GHTF) and the World Health Organization (WHO). The AMDD sets up a risk-based classification system based on GHTF guidelines. According to the AMDD, medical devices – including in-vitro diagnostics (IVDs) – will fall into one of four categories:

- Class A (low risk devices like tongue depressors)
- Class B (low-moderate risk devices like hypodermic needles)
- Class C (moderate-high risk devices like lung ventilators)
- Class D (high risk devices like heart valves)

The risk class will determine fees, processing times and clinical requirements. Currently, these issues vary among ASEAN countries. Individual countries may set up their own expedited registration channels under the AMDD framework, and they will have final authority over any classification disputes that may arise during the registration process. It is expected that many ASEAN member countries will follow the lead of Singapore, which has already implemented many of the AMDD directives. As in the case of serving the Indonesian market it seems worthwhile observing closely further developments in regard to their implementation.

Intellectual Property Rights issues are key when it comes to high technology, and ASEAN is currently working on common standards in this area. There are mutual recognition agreements being developed for the trade in medical devices in ASEAN countries, and IPR issues may be included in future.

4.2. IMPORT REGULATIONS

Companies dealing with Indonesian import regulations for the first time might be put off by the seemingly complex and bureaucratic framework. In practice, however, existing import regulations for medical devices do not constitute a hampering stone for entering the Indonesian market. Instead they can be overcome quite easily when trading with the right partner.

Market insiders emphasized that the import of products which are not yet locally available has shown to be particularly easy. The complexity of bureaucratic processes depends on the risk level of the product, e.g. the process for importing medical devices using radiation is more complex than for simpler devices.

⁵ Medical Device Summit (2013): ASEAN Medical Device Harmonization Update, see:

http://www.medicaldevicesummit.com/RegulatoryCompliance/Features1/ASEAN-Medical-Device-Harmonization-Update-1467.aspx (accessed on 15.03.2013).

The import tariffs for medical devices range between 5-15% and depend on the specific custom group a device belongs to. The customs for specific custom groups can be checked on the website of the Indonesian National Single Window.

IPR issues have not been particularly mentioned by market insiders as critical when importing medical devices to Indonesia.

4.2.1. Product Licensing Requirements and Process

If an entity wants to sell medical devices in Indonesia it has to hold a license of the Ministry of Health specifically allowing the entity to sell the specific product in Indonesia. This product license has to be held by a company completely domestically owned thus making it necessary for foreign manufacturers to have a local distributor or sales agent in Indonesia that applies for the product license, which will ultimately hold it. The importer can be foreign owned up to 100%; it needs to hold all necessary licenses to operate as an importer and typically acts as distributor too. If a foreign manufacturer wants to change its importer, the whole product licensing process has to be repeated with the new one.

The current application process for a product license requires documents only and no sample of the product has to be handed-in for testing yet. In fact, the Indonesian capacity for conformity assessment is still too small which is why currently medical devices are exempted from quality testing to facilitate its trade.

According to the Ministry of Health, three out of four applications get rejected in the first place due to incomplete documents; this states the importance of choosing a distributor or sales agent with sufficient experience in the product licensing process.

The costs and duration of the licensing process depend on the product class. For medical devices of class one the registration takes 40 days and costs US\$ 132, for products of class 2 it takes 80 days and costs US\$ 265and for products of class 3 the licensing takes 120 days at costs of US\$ 441.

4.2.2. Logistics and Distribution Services

Between 2010 and 2012, the number of distributors for medical devices in Indonesia has almost doubled in only 2 years to a total of 1,630. As it is difficult to change the distributor, it is important to choose the right distributor since the beginning. However, during the course of undergoing this Study it seemed like many of those distributors may not be active anymore, a finding that doesn't make identification and selection of distributors easier.

Key quality factors of a qualified distributor are of the following kind.

- 1) Distributor holds all required licenses
- 2) Knowledge and experience with the bureaucratic procedures
- 3) Business ethics / Reliability to act in accordance with the contract with the manufacturer.
- 4) Market knowledge
- 5) Proven, long-standing network

Above all, it is important to verify whether the distributor holds all licenses mandatory for the sale of medical devices and, in case the distributor also acts as importer, the necessary import licenses. Distributors which are new in the field of a specific class of medical devices might have difficulties dealing with the product licensing.

Table 4: Licenses required for the distribution of medical devices

BUSINESS LICENSES	Special Nuisance Act Permit for Medical DevicesDistributor Permanent Business License
TRADE LICENSES	 General Importer Identification Number Custom Identification Number Special Importer Identification Number
DISTRIBUTION LICENSES	Medical Devices Distributor PermitPermit to circulate Medical Devices

Source: NSMP Law Office

The distributor should be a trusted and professional one. If too small, the criteria of a qualified distributor might soon become less credible due to a lack of attention to details and handling works professionally with a very small and not very qualified team. If too big in size, the distributor can become quite powerful which is when influencing its decisions by the manufacturer could become difficult. Foreign manufacturers can never hold any managerial power over their distributor as the distributor has to be 100% locally owned. The actions taken by a distributor only refer to agreements made in contracts made with the manufacturer. In theory the agreements can be enforced by law if a distributor breaches an agreement, but the process of law enforcement can take up to three years due to slow Indonesian bureaucracy.

Trading with Indonesia can be challenging in scale. Once the product license is obtained, the importing manufacturer also needs to accommodate the eventual high demand by the health facilities. This is why, when choosing a distributor, also the size and reliability of the network matters so its network is sufficient to ensure logistics services throughout the archipelago extending over an area of more than 5,000 km in east-west and more than 2,000 km in north-south direction. The quality of the distribution channel becomes key to avoid the risk of decreasing product quality due to storing the products in inappropriate warehouses for too long. Too small distributors might lack in connections with important decision makers in the market, which is a crucial aspect in a society based on people networks like Indonesia. Overall, market knowledge for the specific product is ideal to fulfill the manufacturer's sales expectations.

4.3. FOREIGN OWNED COMPANY ESTABLISHMENTS

When a foreign manufacturer would like to establish an own presence in Indonesia, there are two possibilities in Indonesia.

4.3.1. Representative Office

When establishing a representative office, a company obtains a legal presence within Indonesia. However, presence is limited to marketing purposes only while general business transactions and revenue creation are not allowed. Therefore, entering into importation and distribution of medical devices directly is not feasible for representative offices.

4.3.2. Foreign Owned Company

A presence with the purpose of creating revenues has to be set up with the status of a foreign direct investment company. By law, any company that is by any percentage foreign-owned is seen as a foreign direct investment company. The business fields open for foreign direct investments are regulated within the negative list of investment, which also regulates the maximum share of foreign ownership for some business fields. Therefore it is advisable to check thoroughly if the establishment of companies that shall sell certain medical devices or would provide services are restricted by such negative list. For example, hospital management services can now be foreign owned up to 67%, the field of calibrating, testing, maintaining and repairing health equipment is open for foreign investments up to 49% as well as the rental of medical equipment.

When setting up a foreign owned company, the company is basically free to choose where exactly it will set up operations. The approval for setting up a foreign owned company will be provided by the Indonesia

Investment Coordinating Board (BKPM). Besides the approval by BKPM, further licenses are needed to establish a fully-fledged company and a minimum paid up capital of at the time of writing this Study of about US\$ 200,000 is mandatory. As the application processes can be bureaucratic, seeking the assistance of consultants specialized in setting up foreign-owned companies in Indonesia is recommended.

While Indonesia has ratified all international IPR agreements and recently reviewed its IPR policies, enforcement is usually low and hence there is a risk that domestic production could lead to disadvantages when it comes to the protection of patents or trademarks. It is advisable to assess product-specific IPR issues and the nature of potential risks in-depth with specialized local assistance.

In light of the above said it is not typical that medical devices suppliers engage right away in setting their own company, but more likely try to find local distributors first hand.

5. Market Prospects

5.1. SWOT-ANALYSIS

The strengths, weaknesses, opportunities and threats of Swiss market entry into the Indonesian medical devices market are summarized in the following matrix:

STRENGTH	WEAKNESSES
 Generally high growth rates of all medical devices sub-sectors in Indonesia Large potential market Well-developed health infrastructure in urban areas Possibility for high margins in sub-sectors without local production Modern technology already applied 	 Total market so far as small as Hungary (in selected sectors well established competition) Medical tourism for short term treatments Price sensitive sub-sectors (particularly with domestic production or Asian competitors) Lack of doctors Deficit of skills Identification of qualified distributors Bureaucracy Swiss companies very specialized and small (might lack comprehensiveness)
OPPORTUNITIES	THREATS
 Expansion of national health programs concerning the expansion of services as well as the expansion of insurances Possible application of the economies of scale due to big population size and growing middle class leading to increasing per capita health spending Pioneer position of Swiss companies in selected sub-sectors possible Preference by health facilities towards high quality products for critical needs Market access by addressing doctors key Clustering of complementary companies could create competitive advantage of Swiss products over competition 	 Regulatory obstacles Corruption Dependence on distributors Inappropriate quality of logistic services and warehousing Lack of infrastructure Market volatilities Weak enforcement of hospital policies that would create demand for e.g. green technology weakens motivation for such devices Weak enforcement of IPR issues

5.2. RECOMMENDATIONS MARKET ENTRY

Based on the above Study outcome, a number of recommendations can be drawn:

Be locally present. Indonesia is a people-based culture which is why personal contact to establish trust is even more important for successful business than in western style countries. It is important to show long-term interest in the country and willingness to understand the circumstances of the Indonesian health sector.

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Organizing delegation trips with representatives of Swiss manufacturers would be a suitable first step to establish mutual understanding and allow for exchange of opinions. When business relations have been already established, manufacturers should come and visit on a regular basis their clients. Offering manuals and training material in Bahasa Indonesia is another advisable service to consider.

For the market entry itself, in particular with no or little prior experience with Indonesia, it is recommendable to work with market entry experts based in Indonesia when starting business activities. Even bigger companies experienced in trading with Indonesia can increase their comfort with such a consultancy. The locally-based consultants and/or the local distributors can take care of the mandatory regulatory efforts concerning import and registration regulations, or keep the manufacturer informed about future policy and industry trends.

High precision branding. To be remarkable in the Indonesian market and to position the products among the traditional medical devices suppliers, Swiss medical devices should enter with a strong branding standing for high precision and quality. These features are key selection criteria for medical devices procurement decisions. This gives the medical health facilities the opportunity to attract Indonesian customers who prefer high quality services and would usually opt for conducting the treatments in neighboring countries.

Offer convincing sales and after-sales services. Branding alone will not be sufficient though. The level of qualification of the medical staff in Indonesia still leaves room for improvement. As a consequence, the competences and skills for medical devices is often not sufficient as well. Offering trainings concerning the use of the medical devices as part of the sales services can be crucial, and offering educational trips to Switzerland can be a great incentive for the decision of buying a Swiss device. Usually hospitals have set aside budgets which can cover travel and accommodation. When offering such services it is important to take in mind that the medical staff in urban areas is likely to understand English, but when addressing health staff from more remote areas of the archipelago, offering training sessions in Indonesian language and within Indonesia is indispensable. Besides the aspect of training, the overall costs related to the treatment of diseases are a crucial aspect for health facilities, as two key aspects of hospital management are human resources and cost. Both private and public hospitals have to operate in a cost-efficient way and so it is key to make the procurement departments understood that using Swiss products e.g. can lower the length of hospital stay and hence lower the overall cost of a treatment.

Win over the doctors. For marketing aspects this distinction is important to notice: Doctors are key for the market entry strategy. The purchase decision for medical devices strongly depend on the senior doctor's personal preferences and familiarity with the product thus making it important to show presence within the market to make decision-makers aware of the products. For this purpose, it can be useful to contact the umbrella organizations for the respective medical field or to present the products at market specific trade fairs. Another option is to equip teaching hospitals in form of donations as these teaching hospitals are a place where many doctors and medical students handle and discuss medical devices.

Start in urban areas. A challenge for the nation-wide application of sophisticated medical devices and technology will be dealing with Indonesia's limited electrification, frequent power cuts, and a weak telecommunication system. As a consequence, any technology needs to take into consideration solutions which ensure the quality of services and transmitted records (e.g. images, patient progress reports, etc.) if online or offline. Hospitals with a current need for high precision technology are more likely to be found among the bigger private and public hospitals in the urban areas. This is why the Swiss undertakings should ideally start in urban areas. Also, decision makers in urban areas are most likely to speak English. For rural areas, in a second step of market penetration, it can be very important to address the customer in Bahasa Indonesia and also offer manuals in the Indonesian language.

Cluster your strengths. Manufacturers should be aware of the meaning of trading with Indonesia. The manufacturer should be prepared for what it means if the product is bought at large scale. To provide a comprehensive product range and to be able to support the import in terms of education, maintenance etc. it can be useful to bundle a number of Swiss manufacturers to a company pool. This would also increase the possibility for effective branding. Such an umbrella of companies would not only lower the cost and the risk of a market entry, it would also help getting a larger attention at trade fairs and deal with market volatilities. By

offering a broader range of products, the pool would be more attractive to hospitals seeking for a supplier that covers all devices of a certain disease or equips entire departments.

6. Appendix

6.1. LIST OF INTERVIEWEES

- Dr. Albert Susanto Dermatologist
- Andry Chandra and Noverita Dewayani Directorate of Medical Support and Health Facilities, Ministry of Health
- Arianti Anaya Director of Production and Distribution of Medical Devices at Ministry of Health
- Avril Tjokrorahardjo Director Group Purchasing at PT Siloam International Hospitals
- Dr. Iwan Hardjono Dentist
- Dr. Lia G. Partakusuma Director of Medical and Nursing Services at Rumah Sakit Fatmawati
- Jason Liu Chuanxin Distribution Consultant
- Ruben Soeratman Lawyer at NSMP Law Office
- Santiago Garcia President Director of APL Care
- Zen Koh Managing Director of Hocoma, Singapore

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