Market Entry for Medical Mobile Applications to Enter German Market

The Possible Profitability for Recovery-plus in Germany

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ABSTRACT

In recent years, it has become an unavoidable trend to combine internet applications with traditional business sectors. mHealth industry, however, is difficult to apply internationally due to different situations and the regulations derived greatly country-by-country. Thus it is only possible to study this way then can entrepreneurs take market entry to a new market.

The thesis is focusing on a Chinese company called Recovery-plus which has been successfully accomplished merging professional medical service with a mobile application. So the research question is, what does it have to do to assimilate with another brand new market- Germany?

The objective of this thesis is to give a complete market entry plan for Recovery-plus to enter German market. And hopefully, give German entrepreneurs a hint about how to conduct mergers of medication and internet applications to make more profit.

Keywords **mHealth; Market entry**

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1 INTRODUCTION(BACKGROUND)

As new technologies including internet, mobile phone, global delivery developing, the business has also been transforming more and more rapidly. From global off-shore sourcing and delivery to online cross-border service provision; from purchasing& reselling to building a platform to enable private entities trade on themselves, the business world now looks much different from what it looked like just before this century. As for now, one of the trends is to bring the business together with mobile network.

A) MEGATREND-COMBINATION OF INTERNET & BUSINESS

Alibaba is a popular case nowadays, it moved ordinary flea markets online, enabling everyone to sell and purchase from everyone. It has produced 394-billion-dollar gross merchandise volume in 2015 single, and generated 12.3-billion-dollar total revenue.[1] Uber, on the other hand, enabled average car-owners to make use of the vacancies of their cars and fulfill others' needs. With cheaper prices than taxis and more service providers, this mobile application (app) had soon become phenomenal globally.

However, there is another kind of "m-powered" business segment which looks less close to people than Uber and Alibaba, but still, it is becoming less and less vague to the investors and the potential profits have been seen by the world. The segment is to combine medical and health services with internet and mobile phone, known for short, as mHealth.

The case company this article is discussing is an mHealth company located in China, providing services in first and second tier cities within the country, named Postop Co. Ltd. As it can be seen from its name, its product, Recovery-plus is an app which enables patients to complete post operation follow-up with their doctors on their cellphones without going to hospitals in person.

[1] Alibaba Group (2015) P.4

B) APPROACHES OF THE COMPANY SO FAR IN CHINA

In China, follow-up after surgeries or therapies is not compulsory for doctors, because for medicals, their work intensity in hospitals is relatively high; for patients, it's too time-consuming to go to hospitals and que just for a follow up. So the situation in China is, only few very responsible doctors do follow-up for their patients, otherwise, they do follow-up for their own researches because in China, to get promoted as a doctor requires publication of researches on SCI journals. This situation on follow up leaves problems for companies, especially medical companies. Because usually, to test out the recovery rate of patients using one specific medicine or surgery instrument takes years of long-term clinical follow-up and contrast observation. While lacking of this information in China leaves a huge market for these kind of consumption vacant. To fulfil this bilateral need, the company developed its Recovery-plus app. For medicals, it provides an easy way to catch up with patients' recovery progress, also, by continuously using this app and accumulating surgery records, the doctors' personal brands can be built as time goes by. For patients, it saved them a lot of time from follow-up after treatment. For medical companies, Recovery-plus provides them with anonymous follow-up data, which can tell clearly the effectiveness of medicines and surgeries. And one of the main profit point of the company is to sell the data to the medical producers which need the data for product development.

On top of this possible profitability, the company has also tried to introduce more recovery services to patients. By cooperating with recovery instrument producers, like an enterprise called DJO, an orthopaedic recovery device provider, Postop Co. is trying to make profit out of selling the devices to the patients. It has also been preparing to work with a private-owned hospital specialised in athletic recovery, by introducing target patients to the hospital, the company gets a commission fee.

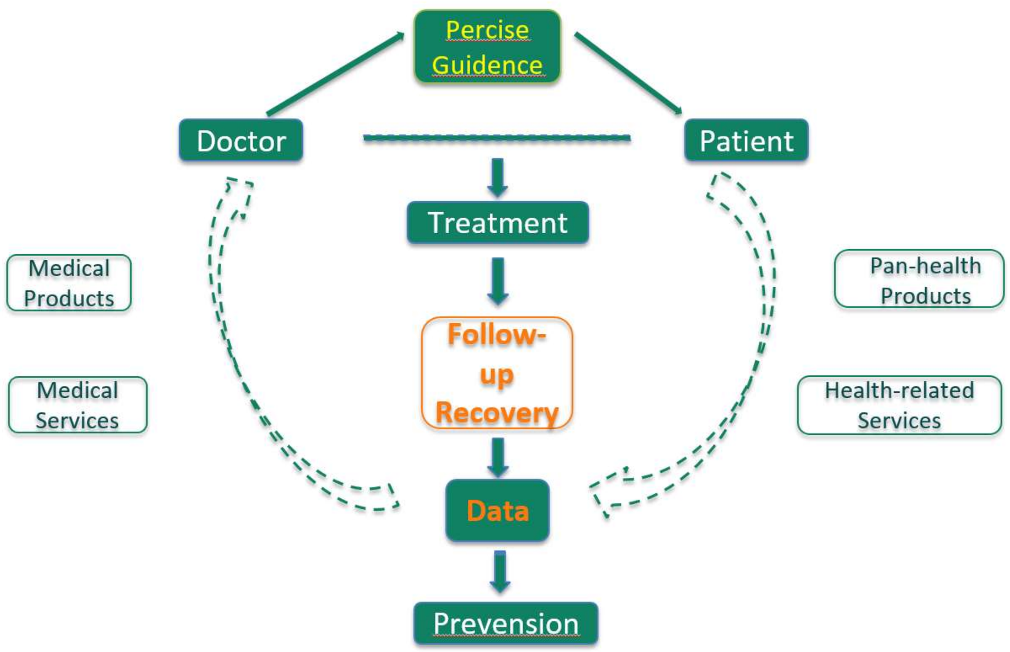


Figure 1: A system of profit model of Recovery-plus's

As a result, the key of this company's operation is to have users- in this case, doctors and patients to start using this app. So apart from regular marketing and product developing activities, its most frequently used approach to acquire new users is through personal selling. The company hired its sales team from other famous and resourceful medical or pharmaceutical companies like Johnson & Johnson, GlaxoSmithKline, etc. Except for regular functional departments in this company, it has an additional department formed by doctors and ex-doctors to help improve users' experience, called "Medical Affairs Department". In this department, there are a few doctors who are still working in hospitals, including the head of this department. This gives the company a very clear view about end users' practical needs and exposes other competitors' marketing strategies to the company.

The way of the company's operation is highly duplicable. It started with only doctors and patients in Chengdu, and gradually, by recruiting resourceful medical agents from big companies to run personal selling, its users have been developing from city to city, now, all three first-tier cities in China are covered, and it's growing to other second-tier cities.

However, when it comes to expanding abroad, there are many debatable issues, about foreign mHealth market development, about legislations in the target country.

2 THEORY

A) MHEALTH APPRAOCHES GLOBALLY

The mHealth industry has only started in China in recent 3 years, but in Western world, especially the United States, this market has been developing for more than a decade. The global mHealth market was evaluated at 10.5 billion dollars in 2014, and was expected to have 33.5% annual growth rate in the following decade.[2]

MHealth industry is a relatively new one, with involvement of stakeholders including patients, doctors, hospitals, pharmaceutical companies and insurance companies, sometimes even the government. In traditional approach of medical service provision, the needs seem to be fulfilled smoothly, while with the appearance of mHealth, coming along with the popularity to smartphone devices, the needs hidden under the old medical system has appeared.

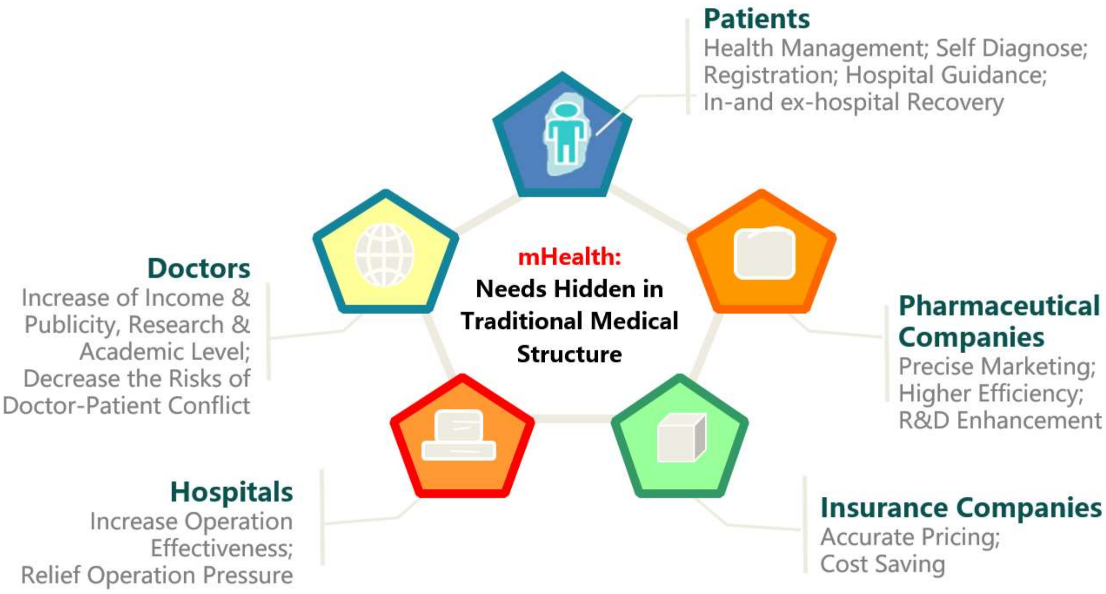


Figure 2: Needs for mHealth hidden behind traditional medical structure

[2] Sharayu 2015, p7

The situations vary from country from country, but the basic needs of the groups of stakeholders always remain unchanged. For patients, outside their basic need to get professional medical treatment, other needs include at-home health management; at-home diagnose; fast reservation and registration at the doctor's; post-operational recovery after being discharged from the hospital, etc. In the old-fashioned medical system, only the in-hospital healthcare was executed, but for mHeatlh, the at-home service which remained blanked will still be a great opportunity.

For doctors, except for daily treatment for their patients, many of them also focuses on their own medical researches. So except for earning a high salary, many of them are still looking to make progress in their careers. That's where mHealth can make effort to. First, mHealth application can relief doctors' daily working pressure, with smart guidance, at-home patient education and online follow-up sessions, doctors no longer have to stay at hospital all day long. Second, mHealth can offer a solution to help doctors with their researches and studies. Like the case suggested in this essay, mHealth apps can offer a fast and clear means to collect and summarise patients' data, making it clear to the researcher about for example, which approach of treatment can maximise the 3-year survival rate after surgery. On top of this, mHealth apps can also help doctors with their patient education. For some surgeons, over 10 surgeries a day is not an abnormal situation, while before every surgery, the doctor has to explain every detail of the surgery, which is called "patient education", and let the patient to sign a consent paper. This work is for the beginning, effort-taking, and also can be one of the popular reasons for a doctor-patient conflict before or after the surgery. With the help of mHealth apps, the risks and workloads for doctors can both be greatly reduced. This is one way that mHealth approach can fulfil the unfulfilled need of the doctors, but not limited to this.

For hospitals, the universal need is to profit. While in most of the hospitals in the world, the harsh fact is that the medical resource is not sufficient enough for all the patients, leading to the consequence that patients must reserve an appointment with a doctor long time before receiving medical assistance. By the time they do so, very often they do not need help anymore. This dilemma exists for a long time, and will grow severer as human population grows and ages. However, with mHealth, one solution starts to appear. Using online patient classification, if patients choose to pre-diagnose online, then they could be transferred faster to specialty hospitals; society clinics and healthcare centres for severe and lethal disease/ unurgent symptom/ chronicle disease caring. Patients could be transferred from hospital to hospital if their symptoms change or uncovered as their treatments go in one medical service provider. By providing appropriate and suitable medical resource, this realizes reasonable allocation of it, which would naturally allow hospitals, as a system, work more effectively and relief the pressure of the medical system as whole.

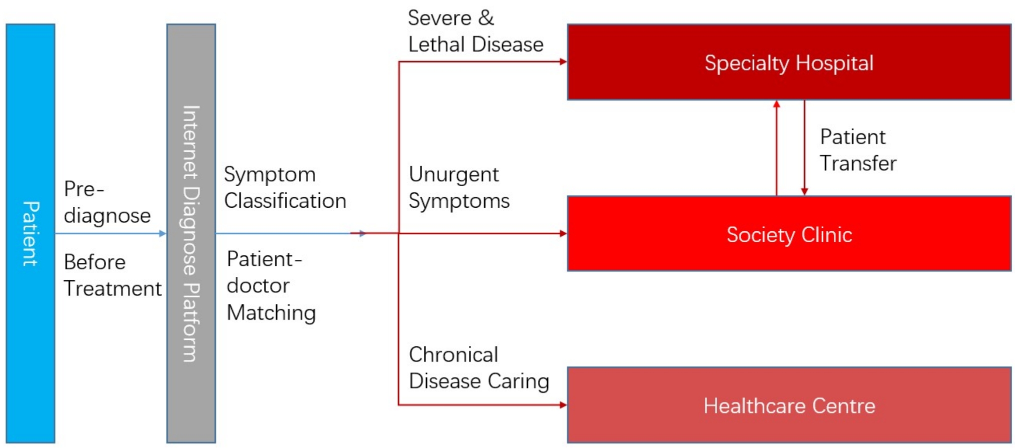


Figure 3: A compound solution mHealth can offer to medical system as a whole

For insurance companies, the benefits of mHealth is apparent: they need data from massive amount of health treatment to find out patterns of patients and diseases to utilize their insurance product, and to apply more accurate pricing on it. On the other hand, they can save costs from wrongly sold and priced insurances to the high-risk patient groups.

It also applies to pharmaceutical companies. With big data, it enables them to maximize product R&D efficiency after one product is examined by the market, hence, they could improve the product in accordance of market need and reaction. With big data acquired from mHealth apps, pharmaceutical companies can also use more effective precise marketing to the true target potential patient group.

These can all increase the efficiency of one company's operation and capital investment.

For patients, the benefit of mHealth is most obviously seeable. Because it takes part in every step one patient takes to acquire medical treatment. Before they register for doctors, they could use self-diagnose to determine which kind of medical services they need. Following, on-line registration system could offer them possibilities to register at where they could receive earliest treatment as possible. In hospital, the information gathered trough self-diagnose before patients come to hospitals can be used for specialty guidance, unlike what hospitals have always been doing: introducing the patients to general doctors, and transfer them to specialty doctors after diagnose. MHealth apps can offer patients with professional patient education pre- and -post- surgery, and after patients receive professional treatment, mHealth apps can help them with in- and ex-hospital recovery. Except for professional medical assistance patients can receive from mHealth apps, one popular way of it nowadays is health management, especially chronicle disease management and fitness guidance. These kind of mobile apps can be seen often on the market.

The main existing types of mHealth product can be concluded as follows: health and sport management (user to user); online chronical disease consultation (doctor to patient); online hospital (doctor to patient); doctors' community (doctor to doctor); remote medical consultation (doctor to doctor); hospital systematical informationalization (hospital to hospital); mutual aiding community (patient to patient); medical rental & crowdfunding (patient to hospital); medical B2C/O2O e-commerce (producer to patient); medical B2B e-commerce (producer to distributer); pharmacy benefit management (producer to insurance provider); health maintenance organization (hospital to insurance provider).

Figure 4: Existing types of mHealth products

The profit models vary from one to another, but one significant difference between the profit models of Chinese companies and Western companies is that in China, only few B2C mobile apps charge their users, because the competition was so fierce that no app maker can afford charging their users directly. Instead, they try to make revenue out of advertisement, product or brand placement or charging the service and product providers using this app as a platform. However, in the context of mHealth, because of its heavy B2B or O2O feature, the profit models can be much different and bold than B2C apps. Except for basic C2C or B2C products like patient & doctor communities, other kind of products like online hospital and chronical disease consultation products can revenue by earning commission from the service provider. On the top of that, with joint of data mining technologies coming along with the trend of big data, it made it possible to make profit from the highly professional data collected by the mobile apps. In order to make money out of the data generated by during the usage of apps, healthcare providers and other stakeholders are investing more and more resources in big data and analytics technology. Analysts estimate that Big Data and analytics technology investments in the healthcare sector will account for over four Billion dollars by 2020, following an average growth rate of over 14% between 2015 and 2020. In order to reduce error rates and improve patient monitoring, pharmaceutical companies are more actively making usage of smartphone and tablet based apps in their clinical trial, because mHealth can dramatically reduce the cost generated in clinical operations and enhance the patient experience. It is estimated that by the end of 2016, mHealth can save up to 340 billion dollars a year worldwide.[3]

B) MARKET ENTRY THEORY

In other industries which involve direct good or service trade, the choice of market entry strategies is fairly wide- except for direct and indirect exporting, other market entry modes may include licensing, franchising, joint venture, subsidiary, etc. The choice of market entry depends mostly on two dimensions: the need for resources in the target market and need of control, as the picture below shows, the more control and resources one company need in the foreign country, the more it tends to use market entry strategies like subsidiary or joint venture. And vice versa, the less it needs control and local resources, the more it tends to use an intermediary to operate its business:

[3] PR Newswire 2015, P.1

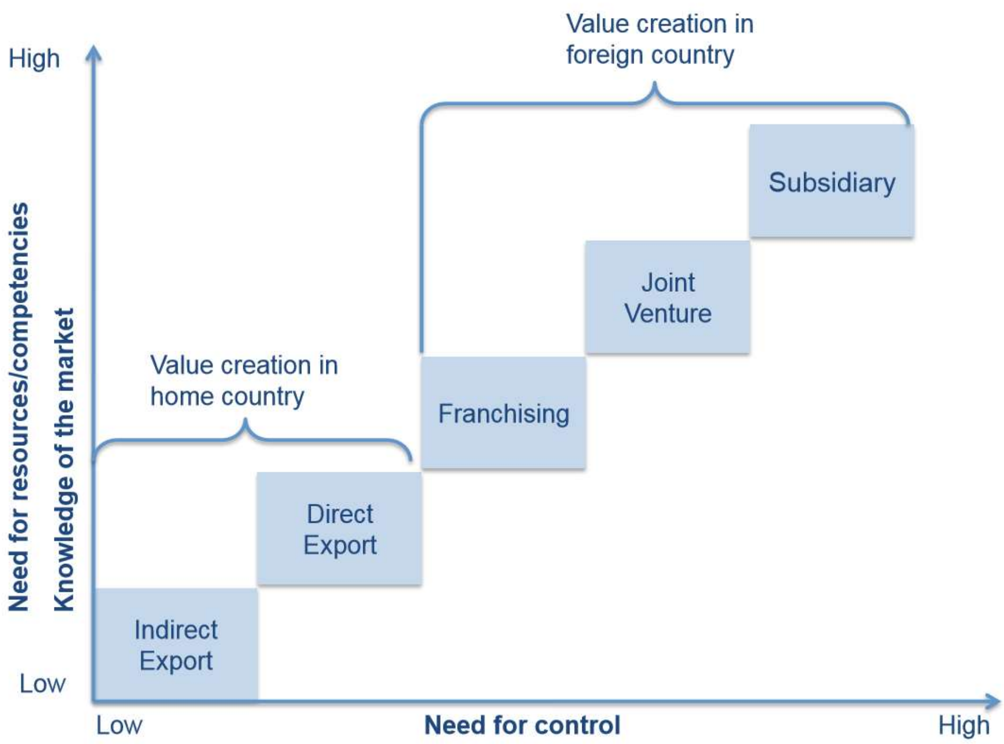


Figure 5: Two dimensions determining choice of market entry strategy

However, when it comes to mobile apps, things become different. Because it does not include direct goods or service trade, so many of the traditional market strategies, like direct and indirect export will not apply in this industry. Many other strategies are applicable but will be in need of adjustment.

Franchising in mobile apps often works in online game industry- Game maker produces the content, and operates it in native market, while it empowers franchisees in foreign market to be in charge of content localization and local operation. One famous example is the Japanese game maker Square Enix. Its games operated on smartphones are only operated by themselves in Japan, while in other countries, it franchised to other local net game operators. For instance, it franchised the game series “Million Arthur” to one Chinese operator SNDA and to Actoz Soft in South Korea.[4]

[4] Square Enix 2016, P.9

As for joint venture, this approach has been for a long time, attractive to entrepreneurs who are seeking for international opportunities. It gives one company a faster way to enter a new market, it helps acquire expertise and talents, and it increases product scale and user coverage. For app makers, pursuing joint venture seems less attractive, because users' words of mouths are not as close as sales people's relationships in one industry, resulting impossibility to simply transform users from one app to another.

Merger, in the content of mobile app market, is a whole different story. Even though merger and joint venture are both market entry strategies that combine multiple companies' effort together, unlike joint venture, merger of an app producer can result in direct transmission and increase of user, under the circumstance that the merged product is similar to the acquiring one. Merger takes place more and more frequently in the recent years. In 2014, Facebook merged with WhatsApp to fill the missing puzzle of Facebook in mobile application. After paying 19 billion dollars, Facebook has opened up a direct channel of itself and WhatsApp, realized the mutual current of two overlapping user groups, and increased users.[5]

Setting subsidiary is one of the most unworried way for an enterprise to enter a new market, because it gives the company full control of everything. However, the downside of this approach is that, first, the cost of setting up a subsidiary is higher than all other methods listed above; second, a subsidiary is time consuming for an enterprise to start, much heavier preparation would have to be made, including recruiting, open up the market with not so locally experienced crew, etc.

An alternative of subsidiary is to set up a branch office. Comparing to subsidiary, a branch office is much less costly and small-sized. Having every vice and virtue subsidiary owns, a branch office differs from subsidiary by not being able to make money. Because a branch office is not a registered company in the foreign country, so it does not need to pay tax but has many limitations on the way it works. However, for mobile apps which does not necessarily require direct revenue from

[5] Ben 2014, P.1

end users, choosing to enter a new market by starting a branch office is not always a bad choice.

Differs from traditional industry, the choice of market entry strategy for mobile app industry is fewer, but more flexible in a way, because for mobile apps, there is much lesser issues on costs that should be taken into consideration. Comparing to the market entry strategies of traditional industry on the two-dimension graph, for mobile app industry, it looks like this:

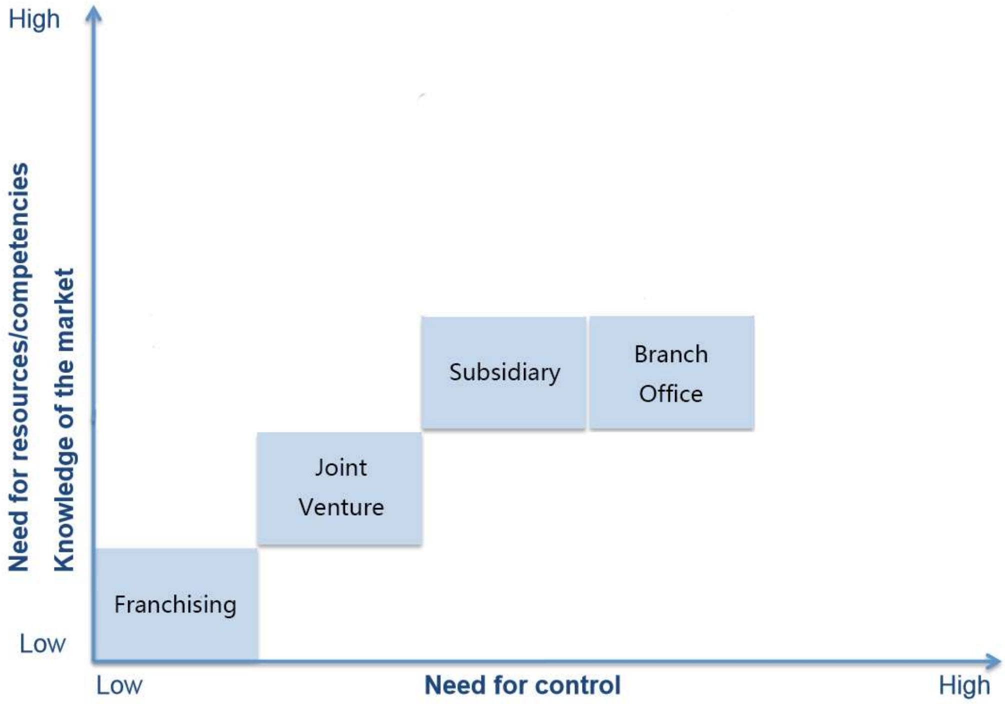


Figure 6: Two dimensions determining market entry strategy for mobile app products

3 SITUATION ANALYSIS

A) BRIEF OF MEDICAL CARE INDUSTRY IN GERMANY

The public healthcare system in Germany have always been considered as one of the most advanced in the world. To find out about its hospitals, on the one hand, there are public hospitals founded by the states, called “Universitätsklinikum”, in short, “Uniklinik”, on the other hand, profit and non-profit private-owned clinics and hospitals exist. Unlike many other countries with sufficient health care system, in Germany, there is no appointed doctor- that is to say, a patient may not necessarily be treated by a certain doctor who has been treating him/her in a hospital the patient was referred to. Another specialty of German medical system is at its well-developed recovery sector. Spare clinics continue with follow-up and treatment after the accuse phase of patients’ symptoms end, but normally, these follow-up, or even just check-up must be booked by the patient in advance, even though in Germany, the medical resources are so well allocated that sometimes it doesn’t even require waiting time.[6]

The problems of German healthcare system started to surface during the past years. The differences between rising cost and declining income from GKV (Statutory health insurance) have been more and more obvious during the past 30 years. Not to mention the challenges placed by the growing expectations from increasingly confident patients and needs occurred through the refugee crisis. On top of these, as chronicle diseases rising globally, one big part of income in medical industry- checking has been declining in ratio, even aggregates this tough situation. So the conclusion can be drawn, that the medical systems in Germany, as well as in many other countries, need to be adjusted to improve efficiency and make them suitable for the new situation.[7]

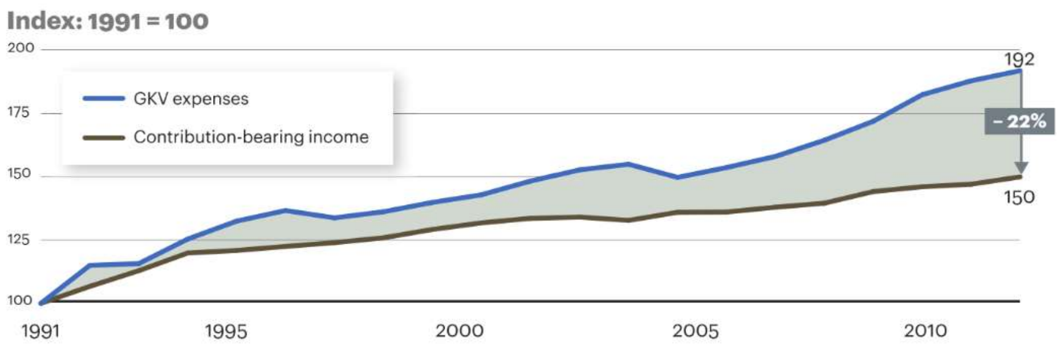


Figure 7: The gap between costs and income is widening
Source: Institut der deutschen Wirtschaft Koeln

[6] IBP Inc. 2015, P.33
[7] Oliver +et alia 2013, P.10

Germany is the birthplace of many leading medical device and pharmaceutical companies including Bayer, Siemens, Dräger, and so on. It also has an open mind in terms of new medical therapies and medications. Frequently, new therapies become available much earlier than they do in United States and most of the other countries. While doctors from other countries put their hands on a new therapy, German physicians would have already acquired years of practical experience on the new methodology. [8] However, when it comes to ground-breaking technologies, the industry tends to be much more cautious, for long-term patient health reasons. However, this kind of caution can also lead to difficulties of mHealth innovation and development in Germany. In a word, the health industry in Germany can be extraordinarily complex and sometimes easy to tamper with profit of the current stakeholders.[9]

The legal environment surrounding mHealth is generally a grey area in Germany, as the whole industry is still at a beginning stage. Thus even a app maker itself cannot define the risks it can put its users' health into. Such uncertainty can tamper with innovation within this industry and influence the general acceptance of the lawmakers. This put innovators in a tough situation, they have to be very careful of the clinical and legal risks their products can incur without much legal references at the early stages of their innovation.

However, the mHealth industry in Germany right now is still looking good. According to a research conducted by Deloitte, over 45% of German population uses mobile devices as an approach for digital health service, and the most attractive and popular segment of mHealth in Germany is monitoring- including both calorie and step counting, and hardware related vital data monitoring. By 2017, monitoring will cover up to 72% of revenue of mHealth industry, according to Pricewaterhouse Coopers. As the availability of internet access and mobile devices' coverage rate rising, Germany is looking to a market growth to 3 billion euro by 2017 in mHealth sector.

[8] Premier Healthcare Germany 2016, P.1
[9] Oliver +et alia 2013, P.31

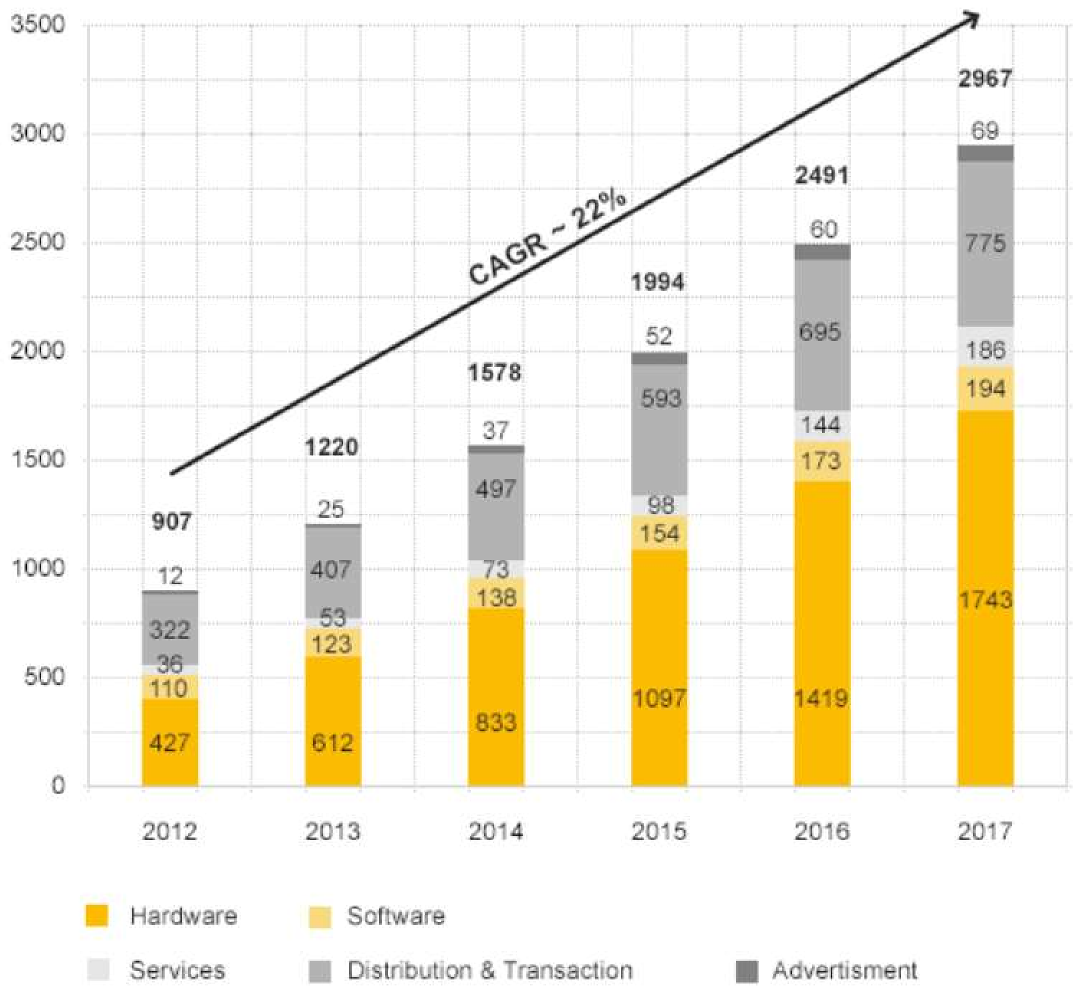


Figure 8: Development of the mHealth market in Germany to 2017 in EUR million
Source: A.T. Kearney 2013

Because medical industry is strictly regulated, while there are not many legit and specific regulations on mHealth apps on mobile phone, so technically, many applications within mHealth industry in Germany are still in a grey area. If the regulations can integrate properly and draw a clear line in mHealth industry by utilizing technological capabilities, there would possibly be an extra acceleration on the current growth rate of mHealth industry. according to forecast, the prospected revenue of mHealth income can grow up to 4.2 billion euro by 2017.[10] By clarifying the grey areas, the general acceptance of mHealth products can also be improved and make them wider-spread.

[10] Germany Trade& Invest 2016, P.1

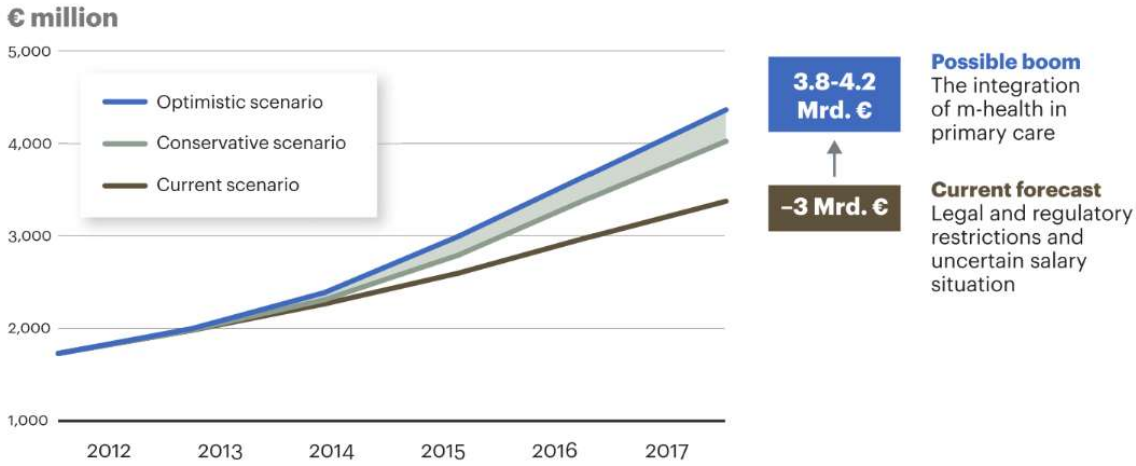


Figure 9: Three scenarios for the development of the m-health market in Germany through 2017

In conclusion, even though long-term developments of healthcare industry are not yet clear enough to see, it is safe to say that mHealth will play an important role in shaping the market over the next few years.

B) COMPETITIVE ANALYSIS IN GERMANY

There are lots of mHealth apps which target the doctors as their customers. In app store, 3 out of top 5 most popular medical apps are made for doctors. They are: Arzneimittel pocket 2016, Sobotta Anatomy Atlas and Arznei aktuell. Arzneimittel pocket is a drug advice and reference app for doctors in practice. Sobotta Anatomy Atlas offers medical school teachers and students anatomy figures for testing and training. Arznel aktuell comparing to Arzneimittel pocket, focuses also on patients' sides. Regarding itself as a drug database, it offered more detailed information on drugs not limited to prescriptive advices, but also included prices of one drug and where to find it. It even made through connection between patients and pharmacies, allowing patients to purchase non-prescriptive medicines directly from online-pharmacies inside this app.

	Arzneimittel Pocket 2016	Sobotta Anatomy Atlas	Arznei Aktuell
Users	Practice Doctors	Medical school teachers & Students, as well as doctors conducting researches	Doctors & Patients
Operation Model	Mostly B2C	B2B & B2C	B2B & B2C
Year of Found	2016	2013	2013
Profit Model	Annual subscription	Free to use, in-app purchase for extended content; B2B sales	B2B sales; Maybe medicine sales commission
Payer	Doctors	Medical schools & researchers	Pharmacy owners
Advantages	Content updated every year enables annually sustainable profit; Professional-oriented image leads to focused content and fixed user group, bringing strong user adherence	Unparalleledly unique content; B2B cooperation with many medical schools	Cooperation with online pharmacies allows long-time sustainable profit; Low need to change the content, low maintenance cost
Disadvantages	Limited attractiveness for non-doctor users, also limited room for profit	One-time purchase made it harder to continuously make profit; Too matured and fixed product leaves small space for innovation	Diverse functions made it hard for doctors to use

Figure 10: Comparison of top 3 medical apps facing doctors in Germany

1. WHAT THEY DO

There are not as many mHealth products in Germany as there are in the States or in China so far, so it is nature to say that there is no product in German market that can do everything Recovery-plus can do. However, there are still competitive products in the market. The closest app German market has is one iPad-based app called Infoskop developed by synMedico GmbH. It offers hospitals and clinics opportunities to conduct patient education and medical acknowledgement in a much simpler way- to use digital platforms to educate patients about their coming surgeries and treatments. Using videos and pictures to demonstrate a treatment, Infoskop relives the workload of doctors and helps with the operation pressure of the hospital. It specialises in few aspects including anaesthetics, surgery, dermatology, gynaecology and so on. The company was set up in 2008 by an experienced doctor who was used to conduct patient education through digital media, since the publlication of this app in 2010, Infoskop has already 8,300 users in Germany, Switzterland and Austria, and it has over 3,300 minutes of videos and 2,600 patient education illustration.

2. HOW THEY DO

The main customers of Infoskop are from private hospitals, reached through medical fares and supposedly, the funder’s personal connections. By assembling a team consisted by doctors of different departments and paying for solicit contributions, the app had integrated a large amount of professional data for patient education. The main method used in user development should be mainly through personal selling using relationships built by the formal doctors in the company, according to a doctor from Herzzentrum of Freiburg University.

This show that the marketing approach does not vary a lot from Chinese market to German market, it is same difficult to locate the target users- doctors, that is why field selling is necessary, especially at the initiating stages where there are not many users.

C) ENVIRONMENT ANALYSIS

In general, the German market for post-operation follow up product is still a blank to fill-in, which gives recovery-plus a great edge to attract the very first users without needing to “headhunt” them from other medical apps. But at the same point, the difficulties stand- there is no previous experience on mining the user group which needs post-operational follow up or similar medical services. In this part, the possibilities of the product in German market in the contents of trend, traffic, package, product, revisit and cost.

1. TREND

The overall trend of German market in terms of medical apps and m-Health product has been increasing and is looking this way. From 907 million to 1994 million, this market segment has proven its potential to the investors. However, when it comes to professional medical assistance service apps, this market seems to be an awkward blank. As in most of the cases, when an obvious market vacancy is observed, the biggest possibility is that the market does not exist at all. The problem then presents- how to prove that the follow-up market need actually exists. Unlike the United States, there is no legislation that forces doctors to conduct follow-up for patients after their treatment or surgery, therefore some patients can choose not to come back to their doctors for a check-up. This can cause a series of problems. First, for doctors, often when they want to conduct a research on methods of treatment on certain diseases, it would acquire a big amount of patient follow-up information for years, even decades in some situations. Without the obligation to check-in, it may be difficult for doctors to conduct researches. Second, for patients, the situation stands in Germany, as in China, is that it would cost quite some time, money and energy to do follow-up with doctors just to make sure their conditions are fine. Third, for pharmaceutical companies, the research and development of new products require a lot of follow-up information on patients, without a regulation that compels follow-up, the cost on gathering this information will naturally increase as the supply decreases.

In conclusion, it is optimistic to assume that there is a need for professional remote follow-up apps, as well as many other professional medical assistance apps.

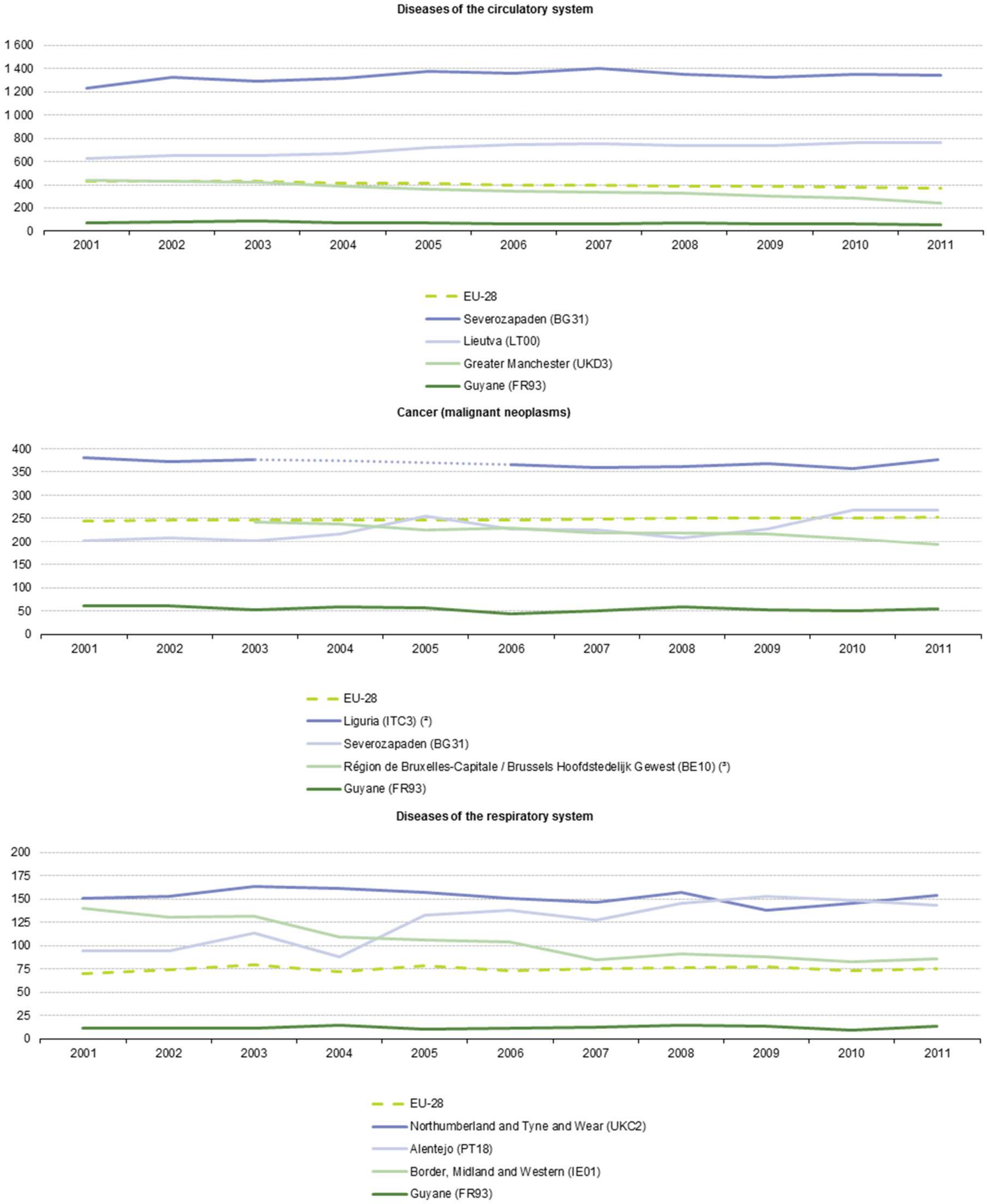
The reason why this market is still remained empty is perhaps, due to high income of doctors and high professionalism needed to develop such a product. This made sure that the cost to realize an app that achieves such function would be rather high, or at least high enough for app makers to back off. While this is exactly the advantage of app developers who are origin from China. With much lower cost to hire a professional doctor, it is rather easy to build up an app's content with acceptable cost. To integrate into German market, what is needed is only localization of content or simply translation. This is probably an answer to the question why professional mHealth market is more developed in China while barely any of this kind of apps can be found in German market- because the cost to develop a new professional medical app is just so high that the developers are not willing to afford, due to the high income level of doctors in Germany.

2. TRAFFIC

Whatever you want to sell, people need to know you want to sell. A simple truth has made Google, Facebook and dozens of mega companies based on internet applications. There are too many companies selling their stuff, and most of them consumers will never know. So in order to let consumers know their existence, they pay an unimaginable amount of money. Traffic, simply defined, is to let target customers be aware of a certain choice, and the key word of this definition is "target customers". For example, there is no way to transfer users from a gaming platform to an online learning site; nor will a Chanel shop be found in a remote department store. For medical apps, it works the same- no follow-up apps will show up in a gym, just like step tracking apps would not choose clinics and hospitals to practice promotion campaigns. Strong brands can introduce traffic automatically to itself. However, for B2B and B2C business, what determines traffic is the power of the sales and marketing team. Mobile network now is the main way to attract traffic, and this is the attractiveness of start-ups based on internet: there is no geographic limitation. However, for most of the start-ups, they have not lost because of some complex reasons, because they could not get the basic level of traffic to survive.

For an app like Recovery-plus, the traffic will mainly come from sales team. The fact is, it is really hard to find a place to put mass marketing to the target market of the product- patients needing post-operational recovery and doctors having the need to conduct researches. Despite of the difficulties may occur locating the target customers, the potential of traffic is unignorably high. And because in German market, traffic of post-operational recovery is an increasing monopoly business as the population aging and refugee crisis putting much more pressure to German's healthcare system, while the number of people died for fatal diseases has never seen to decrease during the past years.[11]

[11]Eurostat 2015, P.1



(¹) The figures show the EU-28 average and four selected regions: the region with the highest (dark purple) and lowest (dark green) crude death rates for each disease in 2011 and the region with the highest growth (light purple) and largest contraction (light green) in crude death rates over the period 2001–11. Chemnitz (DED4), Leipzig (DED5), Attiki (EL30), Jadranska Hrvatska (HR03), Kontinentalna Hrvatska (HR04), Emilia-Romagna (ITH5), Marche (ITI3), Pohjois- ja Itä-Suomi (FI1D), Cheshire (UKD6), Merseyside (UKD7), Eastern Scotland (UKM2), South Western Scotland (UKM3), North Eastern Scotland (UKM5) and Highlands and Islands (UKM6): full time series not available. 2011: break in series.
(²) 2004 and 2005: not available, linear interpolation.
(³) 2001 and 2002: not available.
Source: Eurostat (online data codes: hlth_cd_acdr and hlth_cd_acdr2)

Figure 11: Death rate from diseases of the circulatory system, cancer and the respiratory system in the selected EU countries

3. PACKAGE

Package of a virtual product is not about the wrappings outside one product, it is more of a concept including exhibition of indirect product using experience including design aesthesis, market promotion, brand story and pricing, campaign, etc. In other word, after consumers are aware of the product's existence, in what form it is demonstrated to them. To be more direct, a stunt.

In many business, package is the key determinant of success, rather than the product itself, because product experience is totally different from short-term attraction. A consumer's decision whether to consume one product isn't depending on its practical experience, but on his or her expected using experience in comparison to cost. What package influences is purchasing decision; what product influences is repurchasing decision.

In the industries which need the less core technology, like fast moving consumer goods, the more important package is. Among mHealth products, on the other hand, things are not the same. Because of the variety of the product category defined by the nature of human body, therefore lots of completely different products are produced. From pace counters to sport trackers, from drug adviser to follow-up apps, many products under this category can be defined as niche products. Thus, for these kind of products that rely heavily on product development and have strong differentiation from others do not need to be over-packaged, this applies to Recovery-plus.

4. PRODUCT

Make short of long, the concept of product does not only refer to the object or service itself, but also includes a full package of experience consumers require, like maintenance, after-sale service, and so on. As mentioned in the previous chapter, the main function of a product is not to lead a purchase decision, but to enhance revisit and to introduce new traffic out of words of mouths.

One successful product always possesses two characteristics: distinguished, and without an “Achilles’ heel”. Take smart phone products as example. Apple, Samsung and LG are more or less the kind of the brands that make distinguished and not bad cellphones. But not quite as many unlucky brands. For instance, Nokia phones have really great camera, but its Achilles’ heel is that it only has Windows system. HTC phones are always with fancy sound, but the designs are never good looking. Sony phones doesn’t have an Achilles’ heel, but their only distinction other than high price is that they are waterproof, which seems to be less attractive. This is why Steven Jobs said, “Details matter, it's worth waiting to get it right”. Because the mass consumers may not have the ability to think fast, but they do have acute instincts. They are not good enough to see the differences of details, but they can feel an iPhone is “easy to use”, an HTC feels “uncomfortable”.

Luckily, for internet economy, business can be much easier than real economy. As products update itself in a cycle of weeks, or even days, the error-tolerance rate of apps has become much higher than businesses which actually need to produce a product. Recovery-plus, as an app that is updated and modified hundreds of times since it had been made, now has become a product that can be said distinguished and without vice. What needs to be done to integrate into another market is localization on not only language but also local-friendly content.

5. REVISIT

For most of business, it is always easier to sell something to an old customer than to develop a new one. One product’s ability to acquire revisit is a key determinant of the business’ success. Take a simple example, as popular consumer electronics, why there are much more producers trying to make smart phones instead of laptops? Why it was iPhone that made Apple success? MacBook and iPhone had barely any difference in accordance of trend, traffic, package, product and cost, but the decisive determinant of the company’s success is that iPhone has a better ability to acquire more frequent revisit. Because a good laptop can last for up to more than 5 years, but for almost any cellphone, the lifecycle is always more or less two years before being replaced, and it's getting shorter and shorter recently, especially in the developed countries.[12]

However, for professional mHealth products like Recovery-plus, the revisit may seem to be unnecessary. For many patients, big surgeries are one-in-a-lifetime thing, and for most of people, there is no need for repetitive follow-up. That is why the product doesn't need to make the users stay, it on the contrary, need to let users out to attract new traffic through words of mouths.

6. COST

In the last part of the environment analysis, a component from a totally different dimension will be discussed- cost. Cost does not have any ordinal relationship with trend, traffic, package, product or revisit, but it is within each of them.

The trend of mHealth application started to boom 5 years ago. However, the main developed areas are sport related products like fitness trackers because the technology needed to produce such a product is relatively simple and this kind of product faces a massive amount of consumers. When it comes to professional medical mHealth apps, the market is still a Blue Ocean. After the test-out of similar products in China and the United States, it is reasonable to suppose that the overall market of the industry is increasing. Thus, to cut in a new market as early as possible is the best way to minimize the cost to catch the trend. While on the other hand, this leaves a new potential risk, is that there is still possibility that the market need really does not exist in Germany.

The cost of traffic mainly comes from sales within Germany in hospitals, it requires professional sales team which had experience in sales of medicines and medical equipment in hospitals in Germany, in other word, experienced German medical agents. This can be costly, so a small scale test-out is needed.

The cost of package refers to money spent on marketing and public relationship activities including media publication and activities to engage potential users.

[12] Roger 2011, P.4

Still, for a product that is not facing the mass consumers, this process requires precision, which represents a possibility that the cost can be higher finding a place to advertise to the target consumers.

Before entering a market that uses completely different language, localization will be needed. Because the choice of treatment varies greatly from Chinese doctors to German doctors, so except for simply translating the app into German, to fit the app into German doctors' habits is also extremely important. For example, German government has a much stricter regulation on antibiotics as medicine, on contrary to the fact that Chinese doctors often use antibiotics for inflammation.[13] Thus the need of a group made up of professional doctors is unavoidable in order to optimize the user experience for German users. Despite Recovery-plus is a very mature product examined by the market, it would still require several versions' modification before its perfection for the use of German users.

As stated in the last part, professional mHealth product does not possess the nature to gain revisit. In the opposite, what the product should solely achieve is to bring new traffic through words-of-mouths. For this goal, user incentive mechanism seems to be rather important. Because the function of a doctor-patient follow-up app is mainly based on doctors adding their patients to the watch list, and patients are expected to update their status even when they are feeling healthy. The incentive mechanism should include two parts- to encourage doctors to add patients to their follow-up list, and to give patients motivation to upload their recovery progress. This way, the continuous increase of user traffic can be guaranteed.

[13] German Federal Ministry of Health 2015, P.11

D) SWOT ANALYSIS

The environment analysis has shown the basic conditions for Recovery-plus if the product wants to be successfully operated in German market. In this part, the SWOT analysis will be used to find out the competitive advantages and disadvantages of Recovery-plus, and convert environmental conditions to actual strategies the enterprise should use.

1. STRENGTH

The strengths of the product are, first, there is a very mature product examined by market. The company has a professional team made out of doctors and formal doctors in China, which directed created the original contents for doctors to conduct follow-up. This would be a much more expensive and time-taking process in Germany. On top of that, the company has already tried out its own new profit model- instead of asking users to pay, Recovery-plus does not charge its users directly, but sells big data to pharmaceutical companies.

2. WEEKNESS

The biggest weakness, in comparison to the product's strength, is that the company is completely based in China, with the product designed in Chinese ideology and marketing crew trained in Chinese pharmacy industry. That is to say, the company is experienced, but it is also doubtable that whether this experience can be used in another very different market like Germany. Second, also because the company is based in China, with investment level that enabled its operation in China, it is hard to say if it is enough to operate in Germany, considering the price levels in Germany is overall higher than they are in China, which means higher rent, higher salary and much higher operational cost.

3. OPPOURTUNITY

Due to the differences of healthcare system, doctors in Germany are given more time and vacation for them to give better care of their patients and conduct their own researches. The reason why Recovery-plus used salespeople to promote this product to doctors is that most of doctors in China are heavily preoccupied so that many of them refuse to execute another procedure to add their workload. In terms of, follow-up, even though it is good for the patients' health and doctors' studies, Chinese patients would tend to take it as a burden, but German doctors may have the possibility to think it to be a tool for self-improvement. Thus in Germany, one possible choice is to promote this product through mass marketing instead of personal selling.

Because of the possibility to market on a grand scale- national wide in Germany, one new possible approach is to cooperate with the government and the insurance companies. Because this way, by moving follow-up and recovery guidance process online, the overall cost of a nation's medical system can be greatly reduced and the pressure can be more or less relieved by reducing the work of doctors and increase the amount of patients who would go through a whole follow-up, and consequently, prevent the recurrence and complication. For government, this can reduce the cost of the medical system; for insurance companies, Recovery-plus can help them provide a more precise and profitable pricing and also reduce the cost they spend on claims.

4. THREAT

Germany in pharmaceutical industry, is famous for its open-minded attitude on medical technologies. However, for mHealth products, there is still not a single law to regulate this industry, it applies also to the application of big data, which Recovery-plus relies heavily on in order to profit. As the trend of professional mHealth appears, it is unavoidable that more and more companies will start producing their own professional mHealth apps, and as an app made in China, it will be obviously regarded to have lower quality than the ones designed by German and American companies.

Strength:
1. A mature product
2. A tried-out new profit model
3. Free-of-charge product to its users

Weakness:
1. Lack of experience in the target market
2. Lack of funding to operate in Germany

Opportunities:
1. Doctors in Germany may have more willingness to use the product
2. Possibilities to cooperate with government and insurance companies on a big scale

Threats:
1. The missing regulations on mHealth products and use of big data
2. As mHealth is looking to grow, more and more local players will join

Figure 12: SWOT analysis of Recovery-plus in German market

5. POSSIBILITIES TO EXPLOIT

On strategic level, to utilize the advantages of the product and its profit model is to market the product in a grand level. Because the product itself does not need to be fixed a lot, it can be revealed to the mass consumers soon after its localization. With this product done, it would be much easier to negotiate with the government or other interested parties about the cooperation. Also, because this product is completely free of charge for its direct users, and it's not very normal for professional mobile apps in Germany, it can be widely advertised in order to gain traffic instantly. Furthermore, another option to motivate doctors to use Recovery-plus is to give out benefits to them- like vouchers of shopping sites like Amazon, under the condition that they use the product and add few patients to the follow-up list. This may become bribery in pharmaceutical industry when it comes to sales of medicines and medical equipment, but considering Recovery-plus, for the benefit of hospitals, is completely free of charge, this will not be a problem until new regulations are made on mHealth products and the marketing activities. With the joint of German organizations, especially hospitals and research facilities, synergies of the two markets can be made. One possible approach is to send Chinese doctors to Germany to get training in new techniques. For example, vascular surgery has just become an independent department within the few years in China, while in Germany, vascular surgery has long been a mature specialty. Thus a lot of vascular surgeons choose to come to Germany for a three to six months training.

6. DRAWBACKS TO BE COMPENSATED

To summarize what was listed in weakness and opportunities, a conclusion can be drawn that the product needs funding and experience in sales and marketing within healthcare system. While the strongest powers within this field are the government that builds up the system, and the insurance companies that supports and maintains the normal functions of it. So the best solution to enter German market is first, cooperate with a local organization-private hospitals or pharmaceutical related enterprises. Meanwhile, the company should actively look for chances to promote this product and ideas to the public, in order to indirectly increase the possibility to achieve cooperation with the government.

7. THREATS TO BE ELIMINATED

Despite of the threats that the developing regulations on mHealth and big data may reduce the possible means of profit for Recovery-plus. However, the product has an edge that it can be directly put into market, and the cost and the cycle of this process is far lower and shorter than developing one from ground zero. As a result, Recovery-plus can be one of the very first products entering this market, and can revenue more before the regulations come out. If the regulations on mHealth and big data should change, the solution left for Recovery-plus will have to transform from follow-up centered communication platform to a customizable follow-up tool facing hospitals and doctors. This forms a closed-cycle data flow only between doctors and patients. Without Recovery-plus as the intermediate, the data will only be collected and used within the doctor-patient system, and the software can profit from making the customized apps.

On the other hand, facing the increasing competition globally, Recovery-plus has an advantage that it can cut into German market rapidly before most of competitors making the same kind of product. However, when competing with local products with higher moral reputation, the company can choose to cooperate with some domestic organizations to co-develop Recovery-plus during localization, so that the product can be promoted as “made in Germany”.

8. RISKS TO AVOID

The overall mHealth market is looking to expand, and it is expectable that professional medical apps will appear in German market as it is the most open-minded market to medical products. However, Recovery-plus comparing to these German-based products has more fatal problems. It has no money, no reputation, no experience, and its profit model could be disrupted by new regulations on this new industry. To avoid these risks, the company could cooperate with other local organizations, including hospitals, pharmaceutical companies and mHealth product developers, by joint venture or even merger. By taking this strategy, Recovery-plus will compensate its drawbacks on resources like experienced workforce, public and channel relations. On top of these, the cooperation will give Recovery-plus possibilities to switch profit model more smoothly by taking over or joining another business function. New approaches include but not limited to sales of medical and health products, international trainee programs for doctors, customized follow-up application design, etc.

In conclusion, the main strategies the company should take are as follows:

1. Cooperate with German companies or hospitals to require local resources and help with product’s localization.
2. Try to use mass marketing instead of personal selling which was applied in China.
3. Utilize multiple user motivation channel including giving out little benefits to users. This becomes a problem in pharmaceutical sales, but does not affect the judgement of a doctor using an mHealth product.
4. Cut into the market as soon as possible, before the regulations change on the industry. And be prepared for changes, try to locate new profit models through cooperation and activities in Germany.

4 POSSIBLE APPROACHES AND RECOMMENDATIONS

The market entry of Recovery-plus can be simply divided into 3 parts: Preparation; Publication and Follow-up. In this chapter, the market entry plans will be illustrated in detail in terms of the compartmentalization of sectors within the company.

A) PREPARATION

Before the market entry, steps should be taken in the target market. For Recovery-plus, the main tasks are to find cooperating partners and to localize the app. Considering the domestic resources the company is going to need in Germany, the most realistic and effective choice is to cooperate with German companies through joint venture or merger. With the local resources, Recovery-plus could accomplish offline personal selling and deal with issues as a registered company like registration in Germany. However, it also needs help from professional medical organizations to help localizing the product and also acquire the very first seed users. Collaborations, trainings for Chinese doctors for instance, can take place at this stage with German hospitals.

B) PUBLICATION

After the product is prepared to penetrate into the target market, what's vital is to sell it to the market. As stated in the previous chapters, Recovery-plus can choose to promote itself through mass marketing. The marketing portfolio can be made up of we media marketing, traditional media marketing and supported with event marketing.[14]

The we media is a concept made up this century, it refers to spontaneous transmission channels like internet forums, blogs, tweets, Facebook columns and so on. On contrary to the traditional media, we media has the customer to customer nature. It is the consequence of the masses being globalized and digitalized, and started to share their own facts and news. The we media has edges on propagation speed, cheap price and easy access. Because this means of marketing is for the mass internet users, on this channel, the contents generated should be of grassroots' language, none official and eye-catchingly debatable in order to achieve the sole target- media

[14] Shayne/ Chris 2003, P.8

hype. Thus the topics could be debatable ones including migration issues in terms of Chinese investors; the overdress of the irresponsibility of medical staffs about the disregarded follow-up. On this sense, the marketing team can make use of popular medical topics like medical accidents to address the importance of follow-up, or even propagate topics on themselves. At the beginning stages, the concentration will mainly focus on debates of the invasion of Chinese companies in German medical system to build a first impression in users' minds. As the products' penetration progresses, the concentration of promotion will more and more transferred to the importance of follow-up after surgery to educate patients and turn them into users. These propagandas will mostly not come from the official account of Recovery-plus, its own we media account will mainly promotes events, benefits for users and user education contents, like illustrations of popular surgeries.

On traditional media, because of the relatively higher price and higher-aged reader group, Recovery-plus should only publish official and important activities, along with events that can benefit the elderly people. Also, the choice of paper press or radio should be delicate, the applied media should cover the area Recovery-plus is currently developing users in, and the main audience of the media should be mainly middle-aged and old people, which are the product's potential users. The contents published on traditional media are mainly two kinds, one is news of the product, which will increase exposure and recognition. And the second is news about events and activities for mostly patients, about patient education lectures and benefits for them.

On traditional media, except for paying for a published article, make attractive enough topics to attract journalists to write about a certain event. This works best in small and medium sized cities, like Freiburg or Mönchengladbach, but could not be able to work out in big cities like Hamburg or Düsseldorf.

The event marketing can be divided into two categories: events facing doctors and events facing patients. For doctors, Recovery-plus can organize parties for users to boost user experience. Another efficient possibility for Recovery-plus to develop its doctor users is to sponsor medical fairs and forums for doctors, in order to increase exposure in doctors and investors. For patients, the company could mainly unite local doctors to give lectures on popular diseases like cardiovascular disease, diabetes and obesity. This, on one hand, could increase the publicity of doctors and help them acquire more patients, on the other hand, it can turn these patients or potential patients to Recovery-plus users.

Below is a recommended plan for the marketing of product publication of Recovery-plus:

Time	We Media	Traditional Media	Event Marketing
Preparation	Debates on Chinese companies' merger	"Chinese approach on digitalized medical service"	Speech about mHeath in China on international medical fair
	Follow up: why German doctors are neglecting it?	"Follow-up has gone viral on internet, revealing the missing link in medication"	
Publication	Debate: Is it wise to let a made-in-China app in German medical system?	Recovery-plus product announcement	Recovery-plus product announcement
	Case of a medical accident- if only there was a more effective medical system		
	The app developed by Freiburg University is making medication easier in Germany	Announcement of cooperation between Freiburg University and Recovery-plus	
		Activities in Freiburg- free lectures about elderly disease	Doctors from Freiburg University and Recovery-plus give lectures about vascular disease

Time	We Media	Traditional Media	Event Marketing
	Debate: if ER doctors are having midnight snack, how about patients in pain?		Caring for ER- Recovery-plus helps ER doctors to have real food
Penetration		A reformed medical system that increased efficiency	
		Recovery-plus announced cooperation with insurance company	
	Debate: How safe is it to give your personal medication data to a third party?	Recovery-plus utilizes big data to pair patients to doctors	Who is the best doctor-of-the-kind?
	Comparing to big data collection, traditional systems used in hospitals are more dangerous in terms of data safety	“Data safety issue puts Recovery-plus at the forefront of medical reformation”	Declaration on data safety guarantee

Figure 13: Marketing plan for Recovery-plus in Germany

In short, the marketing on we media tools are mainly for initiating discussion on controversial topics, in order to lead the indirective concentration to Recovery-plus and let public know what it is. On traditional media, on the contrary, the contents will directly point out the product and its nature for promotion. Also on traditional media, local events will be reported. Event marketing will only take place at important time points, like product announcement, important partnership building and the release of new functions. And the other media will cooperatively report the events, or correspondingly initiate relative discussions among public.

During preparation, the product's localization should be done and the very first seed users should be developed before publication through field selling and cooperation with medical institutions. After publication, the main aim of marketing, besides developing new users, is to mediate public relation. The possible doubt on the product could be eliminated: from the fact that it is made in China to the concerns of personal data safety.

C) PENETRATION

To penetrate into German market, into users' hearts, Recovery-plus must maintain good relationships with the users, doctors and patients through every move the company takes in Germany. That is what user encourage mechanisms are for.

No matter how to encourage people to use the product, if they are not suffering from diseases, it will never work out. So the most important thing to turn average citizens to users is to let them realize about their problems. A lot of symptoms which do not have profound effect on people's feelings are often ignored before diagnose, while they are from time to time, symbols of one having organic diseases like tumor. The only solution to make them realize is through science popularizing columns on Recovery-plus's own social media pages. Also, for diagnosed patients, lectures from famous doctors will be organized from time to time, especially for patients who suffer from chronicle disease. Through this, these patients can be guided to the doctor for continuous healthcare.

Doctors sometimes have even lesser motivation to use another app to increase their work load. Indeed, many doctors would love to do follow-up after surgery for professionalism or need of study, but still a large amount of doctors are not willing to conduct follow up for every patient after surgery. The solution is simple- pay them for finishing follow-up process for patients. The payment can be completed through cash or vouchers of online shopping sites like Amazon.de. Another very important attraction of Recovery-plus is that this app can introduce more patients to them and increase the doctors' publicity. Especially to the very first seed users, Recovery-plus could promote them and their clinics with every channel it has: report on internet and paper media, arrange lectures to help them get in touch with their target users, etc.

D) OTHER APPROACHES

For further development of the company in Germany, there are far more possibilities. First of all, the company could utilize its gained patient resources to contract sales of pharmaceutical companies and promote their non-prescription products to patients in need. Second, Recovery-plus could build a bi-way c communication channel for doctors in China and Germany. For Chinese doctors, the company could offer them to travel to Germany to study advanced techniques; For German doctors, they are offered possibilities to give lectures in Chinese hospitals for the doctors, and they could also purchase big data of a disease they are studying on collected with Recovery-plus. Third, German medical industry is extremely good at convalescent care, while in China, this area is still a total blank. This gives Recovery-plus possibilities to gain enough resources to develop products like cardio rehabilitation centers, convalescent hospitals in China.

5 CONCLUSION

In conclusion, Recovery-plus is a relatively new product to German consumers, it has edges in competition with German mHealth apps on cheap cost to consumers, mature profit model, and uniqueness. The German market's attitude on new medical products is overall welcoming, and it has a very high level of medical technologies, which gives Recovery-plus possibilities to utilize the two user groups in these two countries. There is a trend of increasing mHealth industry in Germany and the potential traffic of a follow-up app is sizable. If entering German market, Recovery-plus will not have advantage on marketing due to the fact that it is an app made in China, however, its biggest edge is on the developed product, which directly leads to a much lower cost to simply localize. Even though it does not attract revisit of users, the app has a potential to spread through words-of-mouths. However, a very risky point has to be noticed- there is currently no regulations on mHealth products and big data application in Germany, so it is possible that the situation can vary by time.

For the lack of local resources, a merger or joint venture with German companies which have experience and resources in pharmaceutical industry is vital to the market entry. Also, cooperation with hospitals and relative medical organizations can be very helpful to the product's localization, this also brings the first seed users to the app.
Marketing activities are mainly through we media, traditional media and event marketing. On we media, the main focus in on promoting the name of Recovery-plus with controversial topics; on traditional media, the most important task is to reach the potential users- middle aged or elderly people, while event marketing is the main channel to publish official information, and it leads a thread of the posts on both we media and traditional media.

To penetrate into German market and gain user loyalty, compensation is vital for Recovery-plus, because it is doubtable that most of the users, especially doctors, would prefer to spontaneously use the app constantly.

Other possible approaches can take place once the product enters German market. For example, training trips in Germany for doctors from China, contract sales for pharmaceutical companies. A very experienced medical industry in Germany would also give Recovery-plus an opportunity to develop corresponding missing parts of medical system in China.

SOURCES

1. Alibaba Group (2015): Alibaba Annual Report 2015, http://ar.alibabagroup.com/2015/index.html accessed 3rd, April, 2016

2. Sharayu, D (2015): World mHealth Market - Opportunities and Forecasts, 2014 – 2020, Allied Market Research, Portland, Oregon, USA

3. Ritesh, T.(2015): Global mHealth Market ($18B in 2016), EU mHealth App Market Conditions Benchmarking Review in 2015 Research Reports, http://www.prnewswire.com/news-releases/global-mhealth-market-18b-in-2016-eu-mhealth-app-market-conditions-benchmarking-review-in-2015-research-reports-525973921.html accessed 25th, April, 2016

4. Square Enix (2015): Square Enix 2015 Annual report, http://www.hd.square-enix.com/eng/pdf/ar_2015en.pdf accessed 1st, May, 2016

5. Ben, K. (2014): Facebook Buying WhatsApp - $19B In Cash And Stock, http://www.forbes.com/sites/benkepes/2014/02/19/breaking-facebook-buying-whatsapp-19b-in-cash-and-stock/#4b9f807834eb accessed 10th, May, 2016

6. IBP Inc. (2015): Germany Healthcare Sector Organization, Management and Payment Systems Handbook Volume 1 Strategic Information and Basic Laws, 2015 ed. Washington D.C. USA

7. Oliver, S. +et alia (2013): Mobile Health: Mirage or Growth Opportunity? AT Kearney, Düsseldorf, Germany

8. Premier Healthcare Germany (2016): Hospital Germany: Facts about Germany,https://www.premier-healthcare.eu/hospital-clinic-germany/facts-about-germany accessed 15th, May, 2016

9. Oliver, S. +et alia (2013): Mobile Health: Mirage or Growth Opportunity? AT Kearney, Düsseldorf, Germany

10. Germany Trade& Invest (2016): Digital Health: Digital Solutions for Today's Health Care Challenges, http://www.gtai.de/GTAI/Navigation/EN/Invest/Industries/Life-sciences/digital-health.html accessed on 4th, June, 2016

11. Eurostat (2015): Deaths from diseases of the circulatory system, cancer and the respiratory system, selected NUTS level 2 regions, 2001–11 (crude death rates per 100 000 inhabitants), http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Deaths_from_diseases_of_the_circulatory_system,_cancer_and_the_respiratory_system,_selected_NUTS_level_2_regions,_2001%E2%80%9311_(%C2%B9)_(crude_death_rates_per_100_000_inhabitants)_RYB15.png accessed on 6th, June, 2016

12. Roger, E. (2011): International Comparisons: the Handset Replacement Cycle, Recon Analytics, Dedham, Massachusetts, USA

13. German Federal Ministry of Health (2015): DART 2020: Fighting antibiotic resistance for the good of both humans and animals, http://www.bmg.bund.de/fileadmin/dateien/Publikationen/Ministerium/Broschueren/BMG_DART_2020_Bericht_en.pdf accessed 16th, June, 2016

14. Shayne, B./ Chris, W. (2003): We Media: How audiences are shaping the future of news and information, Media Center of American Press Institute, Reston, Virginia, USA

Declaration:

1. I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

2. I confirm that this thesis presented for the degree of International Business, has
   i) been composed entirely by myself.
   ii) been solely the result of my own work.
   iii) not been submitted for any other degree or professional qualification.

3. I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or processional qualification.