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CanCan Pte Ltd & CanCan.com Platform – IT 解決方案

公司以及 IT 解決方案之網路工作配對平台

CanCan Pte Ltd and CanCan.com Platform – An IT
Solution Provider and Online Platform for Technological
Task Matching Service

林慧雯

Hui-Wen Lin

指導教授：曹承礎博士

Advisor: Seng-Cho T. Chou, Ph.D.

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本論文係林慧雯君（R03749017）在國立臺灣大學企業管理碩士專班完成之碩士學位論文，於民國 106 年 11 月 10 日承下列考試委員審查通過及口試及格，特此證明

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指導教授/Advisor(s)：

_____　（簽名/Signature(s)）

口試委員/Committee members：

_____　_____

_____　_____

_____　_____

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ABSTRACT

The Internet of Things ("IoT") is one of the most compelling technological innovations, leveraging the benefits of cloud computing, mobility and big-data to transform the way people live and the way companies do business. More and more companies adopt technology to transform their customer experience and better position their organization for further growth. CanCan Pte Ltd provides IT solutions and consultancy services tailored to customers' need, enabling customers to focus on their core business. CanCan Pte Ltd is actively developing new enhancement solutions to support their clients' businesses.

In addition, the prevalence of the IoT has driven the growth of startup companies in recent years. However, with the limited resources, product development has been impeded by non-critical technology, hampering the company's core business. CanCan.com is designed to provide a task-matching online platform, where freelancers can share their ideas and earn additional income, and solution seekers can access an array of IT solutions and select the right one for their business.

This study evaluates the idea and logic behind the development of CanCan Pte Ltd and CanCan.com and develops strategies for business growth using numerous well-known business development and management strategies and principles.

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EXECUTIVE SUMMARY

The Internet of Things (IoT) has been growing at a record pace and bringing about multiple benefits to transform industries, create new value and increase productivity. Given the huge benefits, numerous companies are looking to adopt IoT technology to promote their business. However, many of these companies are not proficient and do not specialise in IT, and find it difficult to deploy the technology to their organization. CanCan Pte Ltd addresses this by providing the relevant IoT solutions and consultancy services to provide tailored IT solutions to their clients. It aims to minimise the barrier of deploying the latest IT solutions to companies, and to allow their business to grow. CanCan Pte Ltd is committed to provide customers with a peace of mind and enable them to focus on their core business.

Amongst all sectors of the IoT market, CanCan Pte Ltd will employ niche market strategy to target the health, banking/financial services and agriculture sectors to build a strong brand name in Asia region for the first three years. In terms of business development, CanCan Pte Ltd will develop strategic alliances with well-known enterprises to demonstrate technological capability for brand recognition and the halo effect.

The considerable size of the IoT market and funding support provided by V&C or governments provide massive opportunities for start-up companies. However, with the limited resources, product development may be sacrificed in favour of non-critical technology necessary for their core business. CanCan.com, developed by CanCan Pte

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Ltd, is designed to provide a task matching platform, where solution seekers (start-ups) can search efficiently and effectively for the right technological solutions for their businesses, and freelancers can earn additional income and enjoy a flexible working schedule. CanCan.com offers transaction management service and legal service to protect both parties. In addition, the website also serves as a technological portal platform for the sharing of the latest technological advancements and information of events for start-up companies.

CanCan Pte Ltd has a vision to become a well-known IT solution provider, both from their direct engagement with clients or through the online service platform matching solution seekers with freelancers, and will deploy strategies to ensure the business operation is sustainable and profitable.

1.   INTRODUCTION & BACKGROUND OF ENTERPRISE

1.1   ERA OF "INTERNET-OF-THING" AND "BIG DATA" COMES

Today, mobile devices (e.g. smartphones, wearable bands...) are one of the most innovated technologies changing people's daily life. With continuous added-on features, mobile devices have becoming a viable alternative to feature phones or laptops, offering phone features coupled with mobile internet applications, multimedia functionality and inbuilt GPS capability. Beyond the penetration of mobile devices, the proliferation of Internet (3G and 4G networks), with its inexpensive and ubiquitous connectivity, has created a perform storm for "Internet-of-Thing". The term defines physical devices that are connected to the internet can be remotely monitored or/and controlled. IoT segments include "wearables" e.g. fitness bands, smart clothing, and mobile things that connect to a mobile device used as a hub. The number of connected "things" has been forecasted by Gartner and others to be nearly 100 billion by 2025[1].

With today's 4G networks incorporation or upcoming 5G networks in the near future, the faster data access not only enables more powerful applications in smartphones and wearable devices but also enables the instant data transmission from data centre to users' devices. Through the technology feasibility of cloud computing, "big data" has gradually brought revolutions in many industries, for example, automotive industry, pharmaceutical industry, health system, agriculture and so on.

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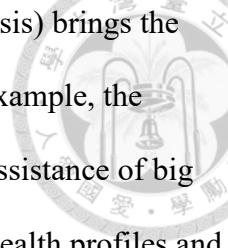
[1] Gartner "Forecast Analysis: Internet of Things —Endpoints, Worldwide, 2015 Update"

1.2 IOT STARTUPS ARE BLOSSOMING AND INDUSTRIES' TRANSFORMATION ARE HAPPENING

In 2014, corporate and venture investors put more than $5 billion into IoT startups, and this market remains hot today. Some IoT startups embracing the fields of artificial intelligence and machine learning strives to offer a more comprehensive portfolio of hardware, software and service for a variety applications, such as autonomous driving, home automation and robotics. The trend of IoT evolves into "Internet of Many Different Things", bringing the challenges of the integration of each piece of technologies to the completion. For large-scale companies, e.g. Amazon, Google…etc, the abundant resources mitigate the development barrier and it's relatively easier to roll-out new products/service time-to-market. Contrarily, small-size startups with limited workforces and resources always struggle solving non-core problems and make new product development time to market. For example, one start-up company initiates to roll-out the service of digital identity on liquor's label or packaging, connecting to the internet for the trace and management in the cloud. The manufacturers can easily manage the supply-chain and can trace whether the bottle of wine is open unintentionally in the process of shipping. The core techniques for this innovated service is the digital identity creation, the connectivity to the cloud and the backward tracing system. However, the relatively non-critical techniques such as web development, interface design or the pressure sensor on digital label are indispensable to integrate to the project. It's challenging to solve all aspects of problems amongst limited employees and it's seemingly impossible to recruit more people dedicated on those "minor" but indispensable tasks.

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In addition, advanced technology (cloud computing or big data analysis) brings the revolution to many industries such as pharmaceutical industry. For example, the treatment of disease transforms to the customized treatment via the assistance of big data deployment and artificial intelligence, whereby it builds better health profiles and better predictive models around individual patients so that doctors can better diagnose and treat disease. However, it's a huge barrier to make advanced technology deployment into practice in hospitals or pharmaceutical institutes by doctors or researchers since IT system is far beyond to doctors' knowledge.

Assisting start-up companies with customized solutions and mitigating the barrier of advanced technology deployment in non-tech companies is the logic behind the development of the business idea which will be discussed in depth in this paper.

1.3 COMPANY INFORMATION

CanCan Pte Ltd aims to assist start-up companies with customized solutions and mitigate the barrier of advanced technology deployment for non-tech companies. For these two different sectors, brick-and-mortar offices and CanCan.com an online platform are both operated. CanCan.com an online platform, connecting CanCan Pte Ltd owned specialists, tech-savvy free-lancers, university professors/students, serves as a two-way streets between start-up companies and innovated talents. For the comprehensive technology deployment, complicated IT solutions or consulting services, the brick-and-mortar office provides the interactive engagement and personalized services for the concern of confidentiality.

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CanCan Pte Ltd is a company with great people from diverse backgrounds that have a variety of skill. This ensures that the team has both depth and breadth of knowledge and practical experience. In addition, CanCan.com online platform enables the connection to specialists all around the world who are capable of providing right solutions. CanCan Pte Ltd is committed to provide solutions efficiently whichever channels the customers select.

The slogan of CanCan Pte Ltd is "One stop solution provider brings you peace of mind".

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1.4   COMPANY'S VISION, MISSIONS & OBJECTIVES

1.4.1 Vision

CanCan Pte Ltd provides customized services/solutions with a goal of driving the new product development forward and helping simplify technology to fund transformation by means of advanced technology/solution deployment. Our people and CanCan.com are the key to customers' success and business growth.

1.4.2 Missions

The missions of CanCan Pte Ltd are

- to provide turn-key, comprehensive solutions in hands of our professionals or expert technicians from CanCan. com online platform; and

- to be leading provider of intelligent technology solutions and consulting services, meeting customers' unique needs.

1.4.3 Objectives

The objectives of the CanCan Ltd are

- to help start-up companies drive new product development forward whenever there's IT problem; and

- to bring the right IT solution or the technology deployment allowing companies transform and keep pace with continued growth

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1.5   BUSINESS MODEL

The business model of CanCan Ltd can be illustrated using the Business Model Canvas template developed by Alexander Osterwalder, as follows:

Key Partners:	Key Activities:	Value Proposition:	Customer Relationship:	Customer Segmentation:
• Tech-savvy free-lancers • University students and professors • Software companies (e.g. IBM, Google…) • Investors	• Solutions and service delivery • Customer support • Marketing and customer acquisition • Managing CanCan.com platform for task matching	**Companies** • Minimum efforts to solve IT problems • Simplifying the deployment of advanced technology, giving customers' peace of mind • Customized solutions	• Face-to-face discussion • Customer support • Review, rating and feedback system	**Companies** • Start-up companies seeking for solutions • Non-tech industries seeking for the transformation via advanced technology solutions
	Key Resources: • Website • Offices • Personal & Human resources	**CanCan.com** **Freelancer** • Extra income • Flexible working schedule **Solution seekers** • Affordable price • Access IT specialist easily	**Channel:** • Direct: Physical offices, CanCan.com platform, website, V&C forum, incubator centres • Indirect: Partnership with software companies	**CanCan.com** • Start-up companies • Freelancers (University students, tech-savvy)

Cost Structure:	Revenue Stream:
• Costs of running and operating an Information Technology company • Research and development costs for permanent employees (e.g. attending symposiums, conferences or interviewing with venture capitalists…) • Costs pertaining to business development and marketing • Technological infrastructure of CanCan.com online platform • Legal and settlement	• Service fee for IT solutions • 5% fee from CanCan.com online transaction

Table 1: Business Model of CanCan Pte Ltd

2.   PRODUCTS & SERVICES

2.1   SERVICE MODEL

Being the leading IT solution provider, it's committed to provide diverse IT

solutions/services portfolio personalized for customers' business. Besides, the

utilization of specialists to promptly response to customers' needs is the logic behind

the development of two service platforms – (i) direct engagement by CanCan

company's permeant employees and (ii) a task-matching online platform CanCan.com,

which are complementary each other. In comparison with traditional IT solution

companies involving direct engagement only, the task-matching platform, CanCan.com,

connects professional free-lancer and IT solution seekers in a whole new way, where

this multisided platform[2] (the service creates values primarily by enabling direct

interaction between two (or more) distinct types of affiliated customers) is in favour of

flexible and cost-effective options. CanCan.com is a strategic partnership, not a simple

hand-off of duties to a third-party; hence, CanCan Pte Ltd is also benefited from the

features of the multisided platform:

- Each side of the multisided platform is the customer of the multisided platform in
some meaningful way; and

- Direct interactions between the sides are enabled.

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[2] Andrei Hagiu, "Strategic Decisions for Multisided Platform" *MIT Sloan Management Review*,
December 19, 2013. [http://sloanreview.mit.edu/article/strategic-decisions-for-multisided-platforms/],
accessed Sep 2017.

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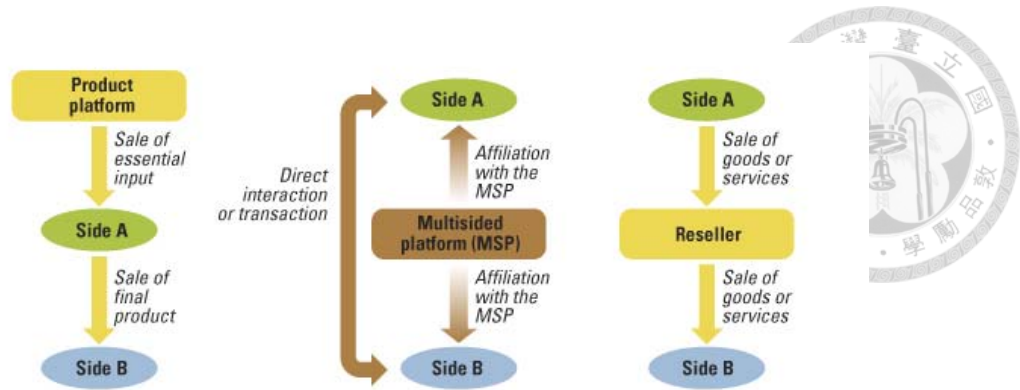
Figure 1: Multi-Sided Platform vs. Product Platform and Resellers

2.2   SERVICE CHANNEL

Whichever channels IT solution seekers select is committed to receive prompt delivery of quality services. Two complementary channels are tailored for different target market, where customer profiles are summarized in the below table. The scope of services CanCan Pte Ltd provides will be discussed in depth in the following sections.

Channel	Customer profile	Solution provider
CanCan Company (Direct Engagement)	- High degree of involvement - Need complicated IT solutions (Turnkey solutions) - Need IT infrastructure deployment - IT project involving confidential info	CannCan company's employees (Majority)
CanCan.com (Task-matching platform)	- Price-sensitive customers - Need relatively simple IT solutions	- Freelancers (Majority) - CanCan company's employees (Minority)

Table 2: The Comparison of Customer Profile

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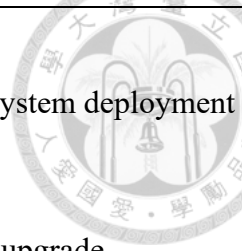
2.2.1 Direct Engagement Through CanCan Pte Ltd

The characteristics of solution seekers tending to engage with CanCan company directly are classified as the followings:

• Seeking for a comprehensive IT solution or a total solution;

• Seeking for the deployment of IT infrastructure for business transformation;

• Seeking for the consulting services or training;

• Seeking for the long-term partnership pertaining IT solutions/infrastructure issues;

• Seeking for IT solutions / services pertaining to the confidential info, where NDA (Non-disclosure agreement) is required.

We fully understand customer profiles, so services provided by CanCan company are tailored to response customers' requests efficiently and effectively. We don't provide a one-size-fits-all product but a customized package for different business sectors, which is more flexible to fit customers' needs. Besides, the marketing specialist team of CanCan company comes up with a well-defined target market, allowing us to focus marketing dollars and brand message on a niche market in an efficient and effective way. Services offered by CanCan Pte Ltd are best described as follows:

Business Sectors	Description of Services
Start-up companies	• Software development • Web/App design • Training and consultancy services
Small to medium business	• Cloud & storage services (e.g. Amazon Web Services)

	- Digital transformation - Modernized devices/system deployment (Kiosks, Apps…) - System integration & upgrade - Data management solutions - Consultancy services
Healthcare	- Infrastructure deployment - Data management - Enhanced security solutions - Machine learning application to enable more accurate, personalized care and scalable pattern recognition - Consultancy services
Banking and financial services	- Enhanced security solutions - Digital transformation - Infrastructure deployment - System/Networking/Software maintenance - Data analysis
Agriculture	- Infrastructure deployment (real-time monitoring, data tracking…) - Data management - Consultancy services

Table 3: Service offered by CanCan Pte Ltd

2.2.2 CanCan.com Online Platform

CanCan.com online platform is strategically designed to target price-sensitive

customers or solution-seekers who need relatively simple IT or software solutions. On

the other hand, the task-matching platform (CanCan.com) also provides the channel for

professional freelancers to earn extra income. Services offered by CanCan Pte Ltd will

be described by solution-seekers' perspective and freelancers' perspective as follows:
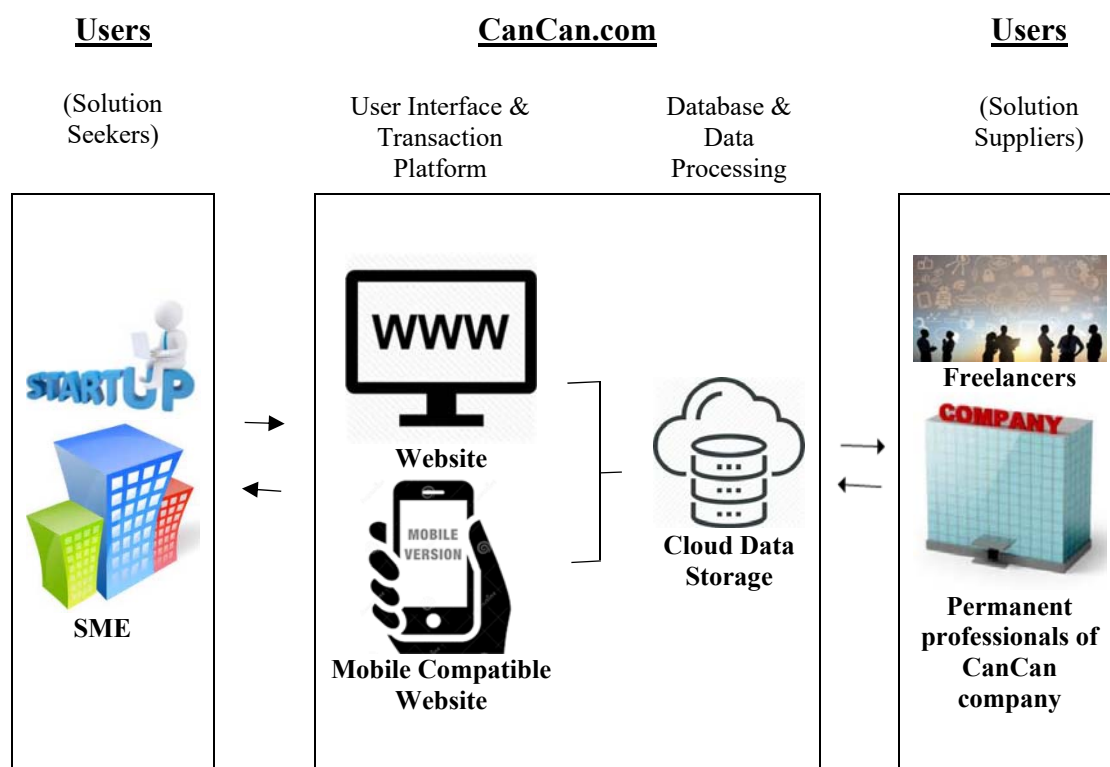
Figure 2: CanCan.com Online Platform Service

In terms of solution seekers' perspective, CanCan online platform provides an

innovative way to get high client involvement rather than a hand-off duty platform.

Services CanCan Pte Ltd provides are described as follows:

- User-friendly interface

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- Review, rating and feedback system

- Transaction management

- Prompt task-matching to right specialist through the advanced technology

- Helping translate customers' requirement to freelancers

- Providing solutions by CanCan company's specialists if there are no available freelancers

- Resolving the dispute if either freelancers or solution-seekers fail to complete the project

- Legal documents for both parties

In terms of freelancers' perspective, CanCan.com revolutionizes the job-matching process whereby the leading-edge intelligent technology promptly and accurately matches tasks to the right person. Besides, given the feature of rating system, the higher rating freelancers receive, the more returns/opportunities freelancers gain. Professional freelancers matter to CanCan.com success and the continuous growth; hence, services provided CanCan company, shown as follows, aim to create freelancer-friendly working environment.

- Freelancer-friendly interface

- Review, rating and feedback system

- Transaction management

- Database of freelancers' profiles and specialties

- Accurate and proactive task-matching technique

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- Helping translate customers' requirement by the technical language

- Resolving the dispute if either freelancers or solution-seekers fail to complete the project

- Legal documents for both parties

2.3   SERVICE DESCRIPTIONS

Services offered by CanCan Pte Ltd are best described as follows:

	Description of Services	Who are the Target Users?
CanCan Pte Ltd	Customized IT Solutions	• Solution seekers
	CanCan Online Platform	• Solution seekers • Freelancers
	Transaction Management Service	• Solution seekers • Freelancers
	Technology Information Portal Service	• Site Visitors & Registered Users

Table 4: Services offered by CanCan Pte Ltd

Services to be offered in CanCan Pte Ltd are strategically designed to empower the company and CanCan.com online platform to quickly enter into the market, expand its user base and grow its brand recognition.

In addition to the abovementioned core services, transaction management service and IT information portal service are provided to increase the company's core value.

2.3.1 Transaction Management Service

From the engagement to the completion of services/solution providing, it might take a long period to finish the project. During the development of IT solutions, professionals in CanCan Pte Ltd or freelancers also need funds to complete the project. Hence, CanCan company establishes a standard milestone payment as the following stages:

- **Stage 1 – Negotiation, Signing Contract, And Paying 10% Upfront**

  - Understanding the request for both sites

  - Setting the milestone for project progress

  - Dealing the service fee

  - Solution seeker pays 10% upfront

- **Stage 2 – Working In Process**

  - Providing 1st or 2nd draft to solution seeker

  - Discussion, review, and revision

  - Solution seeker pays 40% after both parties have the consensus that the project has completed 50%

- **Stage 3 – Completion**

  - IT solution / service is completed and the quality meets the requirement mentioned in the contract.

  - Solution seeker pays the rest of 50% service fee

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By milestone payments, solution seekers pay over the course of the project rather than pay 100% in the beginning. Besides, the contract signed by both parties clearly records the project progress milestone and scope, so solution seekers can control the progress and make the payment accordingly.
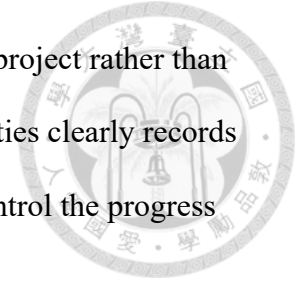
For CanCan online service platform, three parties are involved in the transaction activity (CanCan Pte Ltd, solution seekers and freelancers). To mitigate the risk of outstanding payments or disputes in between solution seekers and freelancers, the transaction management service on CanCan.com platform provides a direct communication between solution seekers and freelancers whereby freelancers are able to upload the progress/outcome and send the alert and automated notice to solution seekers. On the seekers' side, they can log in and view folders which contain IT solutions, but they are eligible to download folders until completing 100% of payment. Certainly, the transaction is transparent and the platform charges a flat fee of 5% as a service free from the amount that solution seekers pay.

2.3.2 Technological Information Portal Service

Unlike the traditional job-matching platform, CanCan.com online platform is also designed to serve as a technological information portal, where it allows the company to achieve the following goals:

- to drive more traffic to CanCan.com;

- to create public awareness;

- to grow popularity and brand recognition;

- to develop and grow user base; and

- to monetize through the selling of marketing

In this area of service offering, CanCan.com positions itself to be the most accountable and reliable technological information portal providing trustworthy information pertaining to the advanced technology, the information of high-tech symposia/events and the market trend, allowing all users / visitors to easily get the updated information without paying subscription or information accessing fees. The strategy of free membership is deployed to grow the user base (potential solution seekers and freelancers).

2.4 REVENUE STREAM & PROFIT MODEL

Revenues will be derived from the following sources:

- Service fee from the direct engagement by CanCan company's professionals;

- Flat service fee 5% of the total amount where solution seekers pay for freelancers from CanCan.com platform; and

- Data monetization through selling advertising spaces

3.   MARKET ANALYSIS

3.1   OVERVIEW OF INTERNET OF THING (IOT) MARKET

The Internet of Thing (IoT) has been called the next industrial revolution, impacting the way business, governments, and consumers interact with the physical world. Worldwide spending on the IoT is forecasted to reach $737 billion in 2016 as organizations invest in the hardware, software, and connectivity that enable the IoT. IHS forecasts that IoT market will grow from an installed base of 15.4 billion device in 2015 to 30.7 billion devices in 2020 and 75.4 billion in 2025[3] as shown in the Figure 3.
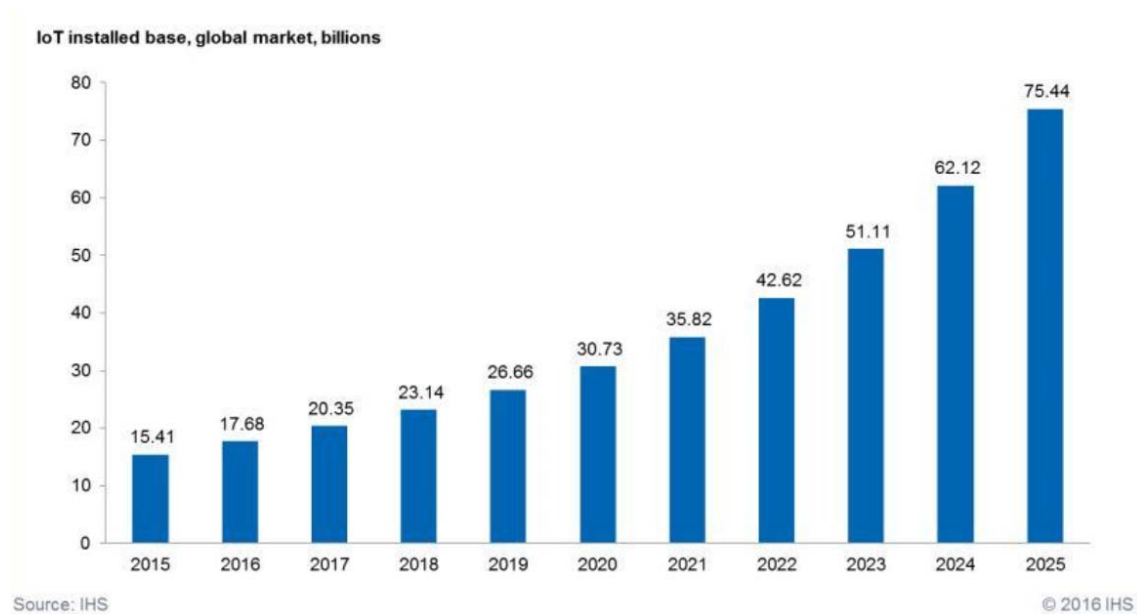
Figure 3: IoT Installed base

IoT market has surged dramatically in the recent decade and the market size is predicted to reach to $457.29B in 2020 as shown in Figure 4[4]. Given huge opportunities in IoT market, there's an incredible amount of applications applied in many industries/sectors.

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IoT Analytics simplifies the classification of market segmentation by industry and

application as shown in Figure 5[5].
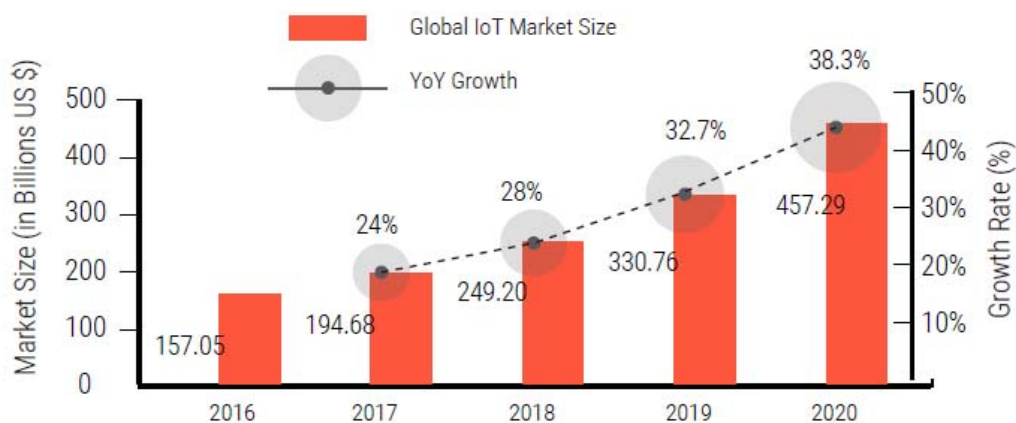
Figure 4: Global IoT Market Size
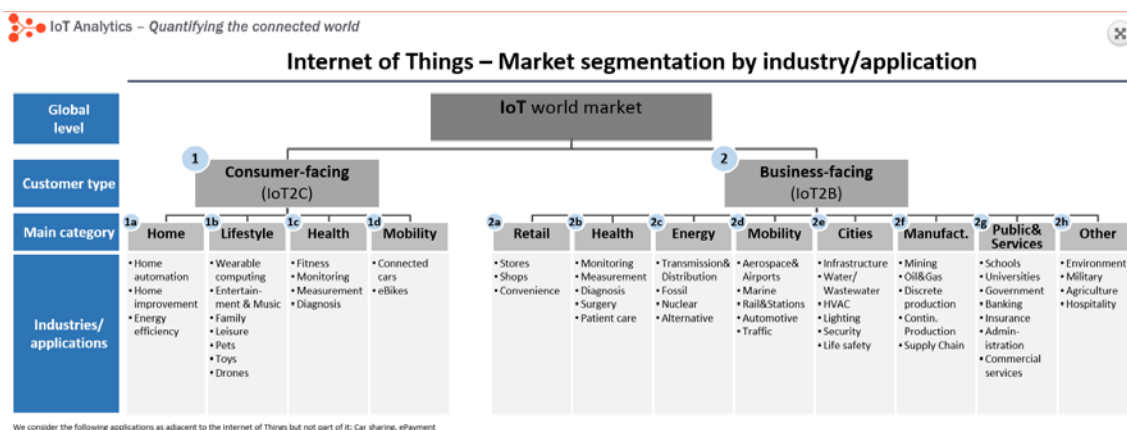
Figure 5: Internet of Things – Market segmentation by industry/application

Consumer-based IoT has enabled objects connected together and communicated

instantly. Digital inventions such as smart refrigerators that can pre-order groceries

through E-commerce have gradually changed our daily lifestyle. In parallel, IoT to

business-facing has gained significant momentum as enterprises enjoy the benefit such

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[5] IoT Analytics: https://iot-analytics.com/iot-market-segments-analysis/

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as a fault prediction, the improvement of customer relationships and the business growth by improving quality and productivity.

While it seems that there is great potential for CanCan Pte Ltd to launch its services in this big IoT market, CanCan company, like many other information technology companies, deploys the strategy of launching its services in certain sectors and countries to gauge the success before considering moving on and expanding to other sectors and countries. For sectors' perspective, a focus-group type of discussion with a team of 10 technical professionals in Taiwan was conducted. According to GrowthEnabler Analysis, the global IoT market share will be dominated by three sub-sectors: smart cities (26%), industrial IoT (24%) and connected health (20%), followed by smart homes (14%), connected cars (7%), smart utilities (4%) and wearables (3%) as shown in Figure 6.

Figure 6: Global IoT Market Share by Sub-Sector

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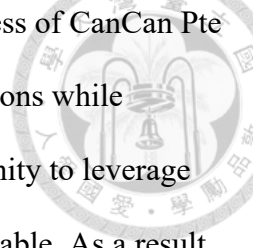
Given the core value of CanCan Pte Ltd is to provide IT solutions to assist clients to drive new product development forward and help enterprises transform by advanced tec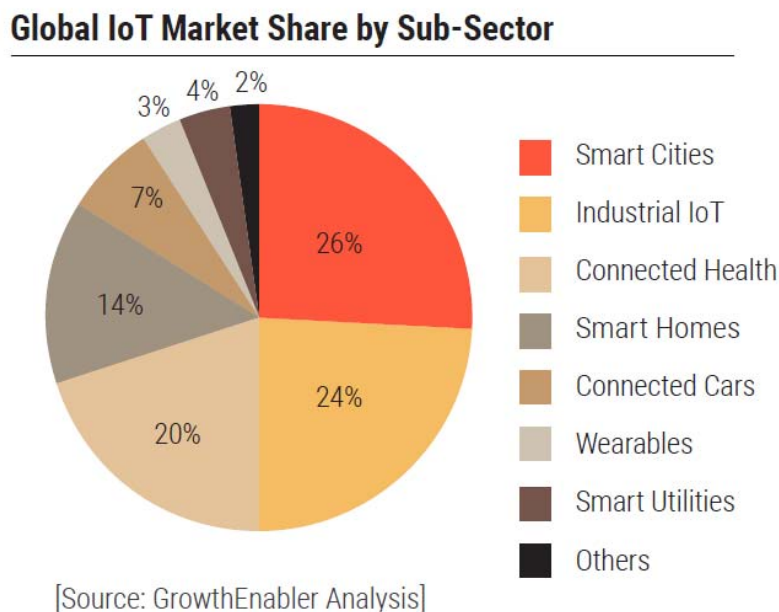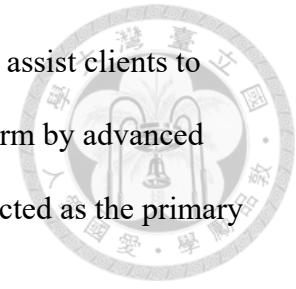hnology deployment, industrial IoT and connected health are selected as the primary target sectors to engage because of the following reasons:

- Even though smart cities dominates the market share mostly, the project is led by the government involving complex bid and quote flow, the regulation, and unexpected political factors. In addition, large-scale companies (such as IBM) have more competitive advantages in charge of municipal projects. CanCan company is a small size company and strategically focus on technology-oriented projects to build the brand recognition first

- Industrial IoT involves extensive application in connected devices, whereby SME (small to medium enterprise) and large-scale companies recognize the innumerable benefits like predictive data analysis. IoT implementation can help manufactures increase business profitability and productivity. CanCan company can start experimenting with small-scale projects with SME to tap into IoT's benefits. For example, offering cloud-based weather data and risk mitigation solution for farmers, smart farming techniques drive high ROI by optimally adjusting planting and irrigation. Therefore, industrial IoT is selected as target sector to launch the service.

- Research suggests that data-rich analysis of personal health will become the norm by 2020[6]. IoT implementation in healthcare applies in many aspects, such as personal-health monitoring system through wearable devices, predictive treatment by analysing massive data or the effectiveness of optimizing the flow

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[6] https://www2.deloitte.com/content/dam/Deloitte/global/documents/life-sciences-health-care/gx-lshc-healthcare-and-life-sciences-predictions-2020.pdf

of patients, staff, and equipment. The backbone of the business of CanCan Pte Ltd is to solve technology problems with intelligent IT solutions while customers can focus on their core businesses, so the opportunity to leverage advanced IT solutions in connected health sector is truly sizeable. As a result, the sector of healthcare is also selected as the key market to launch our services.

Besides, Machina Research also points out that three countries competing to global IoT market share will be the America (22%), followed by China (19%) and Japan (6%) by 2025. CanCan Pte Ltd is based in Taiwan and enjoys the territorial advantage to Asia Pacific region. Moreover, the large scale of financial support and strategic direction by China government drives the adoption of IoT rapidly. China is therefore selected as the initial market to launch our business.

3.2   OVERVIEW OF THE SELECTED MARKET

CanCan Pte Ltd deploys the strategy of two types of business services – direct engagement and CanCan.com open platform to target specific markets/customers.

For the direct engagement by CanCan company's professionals, industrial IoT and healthcare segments are selected as the initial market. As mentioned in the previous section, global IoT market size will reach $457.29B in 2020, so the sub-sector of industrial IoT and connected health are estimated to account for $110B and $91.4B, respectively.

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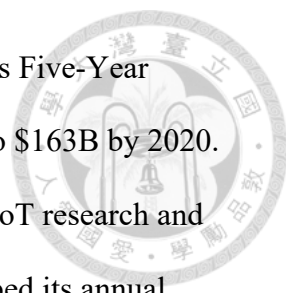
China's Ministry of Industry and Information Technology released its Five-Year

Development Plan in 2012, with the goal of scaling the IoT market to $163B by 2020.

In the meantime, the government's IoT special fund was promoting IoT research and

development, applications and services. In 2014, the government upped its annual

investment in IoT to $1.6B. The strong government support and the potential of

economies of scale are launching China to the forefront of the industrial IoT revolution.

The overall scale and growth of China's industrial IoT is shown in Figure 7[7].

The Overall Scale and Growth Forecast of China 's IIoT (2010 – 2019)
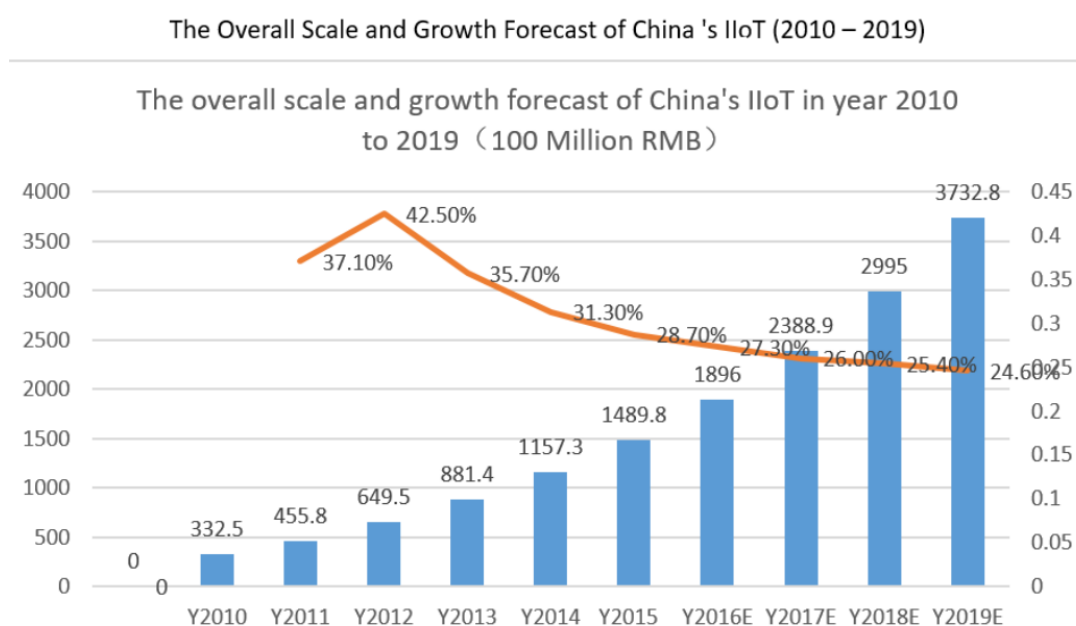
Figure 7: The overall scale and growth forecast of China's IIoT (2010~2019)

CanCan Pte Ltd deploys the focused-strategy to leverage its resources in two primary

IIoT sectors - banking/financial services and agriculture because the survey from

Daintreee Networks points out 74% of banking/financial services planned to invest in

developing and implementing IoT strategy by 2016 and Business Insider indicates that

75 million IoT devices will be applied for agricultural uses. The early adoption in the

banking sector provides considerable opportunities to launch our business service. On

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[7] http://iotintl.com/the-size-of-the-industrial-iot-market-in-china/

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the other hand, China, ranking first in worldwide farm output, has massive chances to deploy IoT innovation in the form of smart farming techniques. Hence, agriculture is another industrial IoT focus to expand CanCan Pte Ltd service.
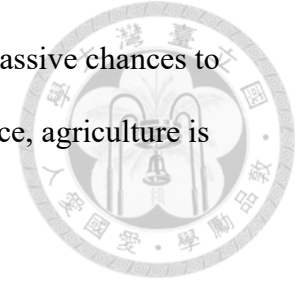
In respect of connected-heath, the market is estimated to reach $91.4B in 2020 and the major growth drivers of IoT healthcare market are evolution of intelligence technology, rise in investments for the implementation of IoT healthcare solutions, and the increasing penetration of connected devices in healthcare.

In addition, the investment in IoT has exploded and corporate VC or traditional VC firms proactively invest in IoT space. Large corporates entered the IoT market from the very beginning and invested heavily in the development, whereby such investment acts as a catalyst for greater start-up activity. Venture Scanner points out that IoT global funding grew at a CAGR of 34% from 2011 to 2016 as shown in Figure 8 (Data for 2017 is cumulated to August only).
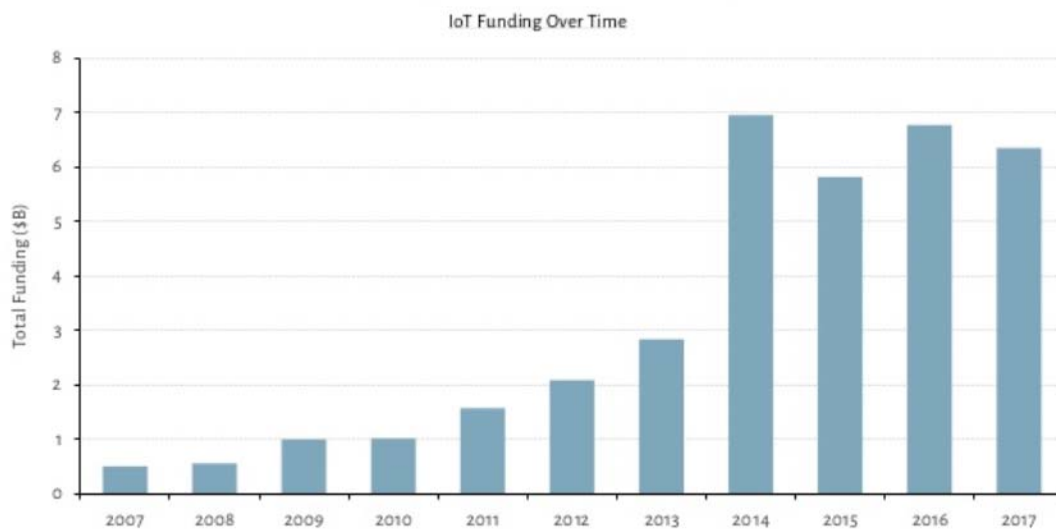
Figure 8: Global IoT Funding Over Time

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Massive start-up companies pertaining to the IoT space have arisen because of governments' support, substantial funding sources and accessible open platform. With the backbone of task-matching service and transaction management through CanCan.com online platform, global start-up companies are selected as the potential customers.

3.3   COMPETITION

As of the data of this paper, there's no prevailing company providing identical services (both direct engagement and online task-matching platform) which are to be offered by CanCan Pte Ltd.

However, there's indirect competition coming from the existing well-known IT solutions companies targeted at sectors of industrial IoT and connected-health IoT. Their details are as follows:

- Nuance company providing healthcare solutions (America)

- Konica Minolta providing web-based software platform for radiology (America)

- ITS – A Total Solution Company specializing in infrastructure, security and storage (India)

- Insight company offering comprehensive solutions (America)

The abovementioned companies have the ability to leverage on their popularity and dominance to prevent competitions from the new entrant.

3.3.1 Nuance Company

Nuance is US based company specializing in health care solutions including digital documentation, web-based platform, artificial intelligence application, speech recognition software and quality management. The major business activity is to drive documentation productivity through voice recognition and the system integration through web-based platform. The available services/products are not comprehensive to the extent of the relevance to IoT connected health.

3.3.2 Konica Minolta Company

Konica Minolta company is US based company, focusing on imagining – optics, medical imaging, graphics, business solutions. Over past 75 years, the company builds its brand recognition in digital radiography, ultrasound, mammography, and laser imaging. The company continues to develop new service, web-based software platform, on the forefront of health IT advancements. From IoT perspective, this company just starts engaging in the connected objects.

3.3.3 ITS – A Total Solution Company

ITS – A Total Solution Company, based in India, was established in 1996 and provides IT infrastructure and solutions on various platforms. Infrastructure, security and storage are the main sectors where this company focuses on. The service portfolio is not comprehensive, so ITS might not be the one stop IT solution company to solve a variety of problems from the IoT space.

3.3.4 Insight company

Insight company, an American company, was founded in 1988 and has continued expanding and acquired other companies to make the service portfolio more comprehensive. Today, Insight is positioned as a leading provider of IT solutions, helping companies around the world implement innovation and improve business performance. In addition, with 5,100 hardware, software and cloud partners, Insight offers leading solutions and diverse services. For the wave of IoT revolution, Insight tailors its service for a variety of industries whereby customers can seek total solutions from there. Insight has the ability to leverage on its dominance to prevent competitions from the new entrant.

4.   COMPETITIVENESS ANALYSIS

4.1   EXTERNAL MARKET ENVIRONMENT

In this paper, Porter's Five Forces of Competition Framework was used to analyse whether this business can be profitable and how vulnerable CanCan Pte Ltd may be.

Porter's Five Forces of Competition Framework was developed to understand the competitive forces and their underlying causes and reveal the roots of an industry's current profitability while providing a framework for anticipating and influencing competition and profitability over time. According to Michael E. Porter, there are five forces that shape competition. These five forces of competition consist of three sources of horizontal competition, which are competition from substitutes, competition from new entrants and competition from established rivals, and two sources of vertical competition, which are the bargaining power of suppliers and the bargaining power of buyer. These forces are used to measure competition intensity and the attractiveness and profitability of an industry or market[8].

4.1.1 Threat of New Entrant

Threat of new entrant is moderate to low as the barrier to set up an IT solutions company with comprehensive solutions and enable CanCan.com online task-matching

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[8]Michael E. Porter, "The Five Competitive Forces that Shape Strategy", Harvard Business Review, January 2008, [https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy], accessed January 2017.

platform is high. Large capital costs, specialists' proficient knowledge and the brand identification limit the entry of new players in this market.

4.1.2 Suppliers' Bargaining Power

The bargaining power of the suppliers, including the web host, cloud server, is moderate to high even though there are many providers offering same or similar products in the market. However, CanCan.com task-matching platform requires high security and stability, so only top suppliers (e.g. Amazon or IBM) are selected for our IT infrastructure installation. The switching cost is high, so the dependence on the suppliers is expected to be moderate to high for CanCan Pte Ltd and CanCan.com online platform.

4.1.3 Buyers' Bargaining Power

The service CanCan Pte Ltd provides is tailored to customers' needs. Once the end-customers (such as the hospital) deploys IoT infrastructure and introduces IoT services to patients, it's hard to adopt other IT solutions afterwards since the switching cost is high. For CanCan.com online platform, solution seekers or freelancers hold low bargaining power too since there's no similar or identical service helping task-matching with transaction management service. So, the buyers' bargaining power is low.

4.1.4 Threat of Substitutes

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Threat of substitutes is low as the services provided by CanCan Pte Ltd or CanCan.com is tailored to address customers' pain points. This force won't threat CanCan Pte Ltd or CanCan.com in the foreseeable future.

4.1.5 Competitive Rivalry

Competitive rivalry is moderate as there is no direct competitor in the market and the indirect competition may not have much implication on CanCan Pte Ltd and CanCan.com online after services are introduced and launched to the market.
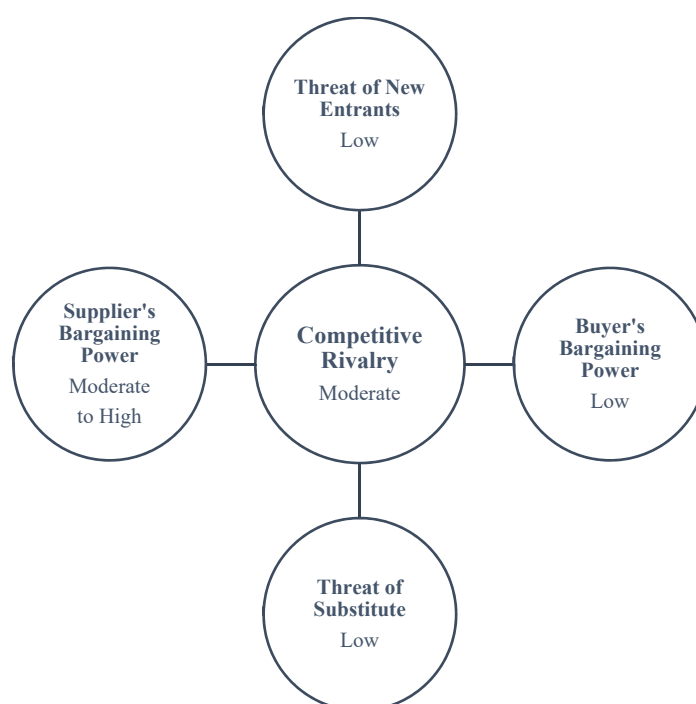

Figure 9: Porter's 5 Forces Analysis

In this market, even though there are long-stand and well-established players, there is still opportunity for new player to break into the market if one can find a niche market to provide services to.

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4.2   SWOT ANALYSIS

SWOT analysis is widely used to help an organization to determine the strategic fit between an organisation's internal, distinctive capabilities and external possibilities. This analytical tool was first developed and introduced by Edmund P. Learned, C. Roland Christensen, Kenneth Andrews and William D. Book in 1960s. SWOT stands for:

- Strengths – those potential actors that make a firm more competitive than its competitors;

- Weaknesses – both potential limitations and defects ingrained in an organisation and/or weak factors relative to direct competitors;

- Opportunities – future factors that allow the organisation to improve its relative competitive position; and

- Threats - those future factors that reduce the firm's relative competitive position.

For two different business model – (1) direct engagement through CanCan company's specialists and (2) CanCan.com online platform, two SWOT analysis are conducted.
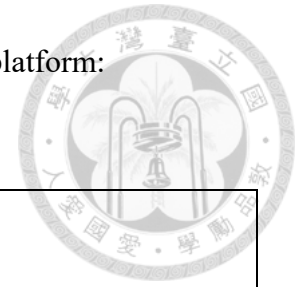
The following table is the SWOT Analysis for CanCan Pte Ltd:

Strengths:	Weaknesses:
• High client involvement • Customized solutions/services • Total solutions (one stop shop) • Core technologies and offering is innovative • Non-disclosure agreement to protect the confidential info	• Low brand awareness and targeted audiences may be sceptical about functionality and technologies that CanCan company promises to offer • Limited funding and financial resources
Opportunities:	Threats:
• Demand from high growth rate of the IoT space; • Strong demand for connected-health; • China government's support for industrial IoT; • Emerging market for agriculture with IoT implementation • Banking/Financial service transformation	• Competitions from indirect competitors with strong market dominance and presence remain strong (such as Insight company) • China government's policy to constrain the foreign company in China's market • Hardware vendors (such as screening equipment provider) expands to IoT market offering integrated total solutions

Table 5: SWOT Analysis for CanCan Pte Ltd

The following table is the SWOT Analysis for CanCan.com online platform:

Strengths:	Weaknesses:
• Job matching for IT problems is innovative • Transaction management offering • Friendly user interface • Technological information portal • Direct engagement by CanCan's professionals if no freelancer takes the task • Affordable price for both solution seekers and freelancers	• Low brand awareness • Concern for quality, schedule, communication…etc • Limited funding and financial resources
Opportunities:	**Threats:**
• Demand from increasing start-up companies • First mover advantage as there is no known similar services or identical offering. • Well-defined niche market (Targeting at start-up companies) • Plenty technological specialists in Taiwan	• Market acceptance has not been validated • Small IT solution companies offering low-cost service • China's government's policy to constrain the foreign platform

Table 6: SWOT Analysis for CanCan.com online platform

5. IMPLEMENTATION STRATEGIES

5.1 BUSINESS DEVELOPMENT STRATEGIES
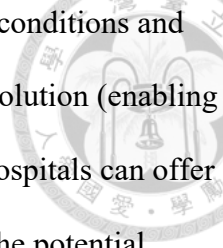
Brand recognition, growing popularity and big user database are the most important factors to the success of CanCan company and CanCan.com online platform. Based on the above competitiveness analysis, there are long-stand and well-established players offering IT solutions or consulting services as same as CanCan company's offering.

CanCan company employs the micro-market strategy for initial stage of business development, focusing on the selected markets to help customers transform by innovated technology. Meanwhile, the company will establish strategic alliance with some well-known companies to deploy the latest IT solution to boost their business. By the demonstration of successful cases from well-known companies, "Halo effect[9]" will empower the company to enter into the market quickly and grow the brand recognition. The deployment of strategic alliance for different target markets is elaborated in the followings:

- Connected Health:
    - To partnership with health check program in hospitals since people perform regular health check are more health conscious and tend to be early adopter for personal health monitoring services. Several Taiwan's hospitals offer luxury health check program to attract foreigners or high-end customers. For those foreign customers, hospitals can still stream

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[9] https://en.wikipedia.org/wiki/Halo_effect

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revenue if hospitals can routinely track their physical conditions and provide online consulting service. By deploying IoT solution (enabling an APP connected to customers' wearable devices), hospitals can offer more services to their customers and is benefited for the potential business growth.

- o Strategic alliance with screening equipment suppliers. By integrating latest technology (big data analysis or cloud storage) into equipment, it helps suppliers to differentiate their products.

- Banking/Financial service

- o Basically, the giant banks own their IT team to develop the latest technology tailored for their needs. Hence, CanCan Pte Ltd will select some insurance companies to launch services first and collect more information (such as the regulation or policy) to adjust services/solutions rolled-out in the near future.

- Agriculture

- o Strategic alliance with equipment/tools suppliers. Agriculture IoT is benefited mostly for the larger scale of farming because of economies of scale.

Regarding to CanCan.com online platform, we also employs the micro-market strategy for the initial stage. Following the similar pattern as Facebook launched its service to the student community at Harvard, CanCan.com will deploy this service to Taiwan's universities first to validate the quality of interaction amongst users (both solution seekers and freelancers) before the launch to start-up companies. As the trial-run period

in universities, it's good opportunities to attract professors and university students to be freelancers.

5.2   ORGANISATIONAL STRUCTURE

CanCan Pte Ltd is a technology-oriented company and focuses on providing tailored and leading-edge solutions to customers. In accordance with the business strategy targeting at specific markets, CanCan Pte Ltd deploys four business units in the initial stage, connected health, agriculture IoT, banking/financial service and online task-matching platform, to maximum each specialist strengths. Meanwhile, the composition of marketing and sales team is also in accordance with these four business units to synergy the business development.

CEO of the Company acts as the coordinator of each functional group and provides the support to each other when required. Under this strategy, the team becomes more than just a collection of professionals and can generate performance greater than the sum of the performance of its individual members

Organizational structure of CanCan Pte Ltd is shown as follows:
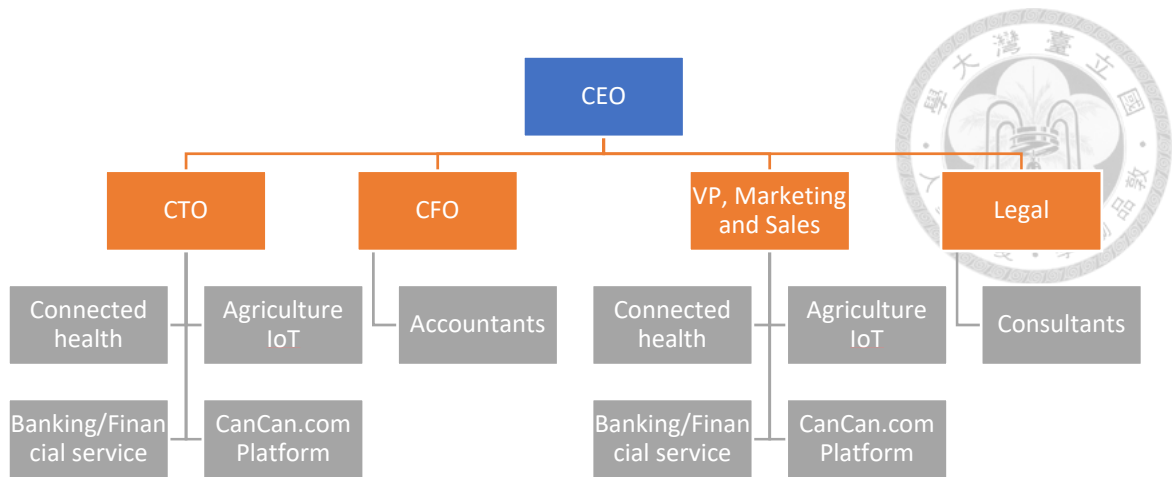
Figure 10: Organizational Structure of CanCan Pte Ltd

5.3   MARKETING STRATEGY

As a start-up company, CanCan Pte Ltd will take a sophisticated approach to manage its marketing strategy. Because of the lack of brand recognition in the beginning stage, CanCan company will employ door-to-door marketing whereby marketing/sales team will visit potential strategic alliances and introduce the company's services/products as a mean for obtaining the opportunity of cooperation. Onwards, door-to-door marketing strategy will continue executing to obtain business and maintain customer's relationship.

As mentioned in previous sections, CanCan company establishes the strategic alliance with equipment suppliers, whose products bundled with CanCan company's solutions helps promote CanCan company, and the intensive communication and on-site visiting are essential to ensure that products are with up-to-date technology and maintain the close partnership.

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For CanCan.com online platform, marketing group will focus on the digital marketing campaigns to attract users' awareness. In the initial stage, CanCan.com platform will launch the service amongst universities to collect the market response first. The marketing group will put more attention on creating and providing state-of-art user experience, including the development of user-friendly interface, constant updating the content of technological information portal service, and the instant response to customers' inquiries timely. In addition, the marketing group will conduct the campaign in the start-up gatherings or symposiums to increase the awareness.

5.4   PRICING STRATEGY

5.4.1 Pricing for Direct Engagement Via CanCan Pte Ltd

The service CanCan Pte Ltd offers is tailored to fit customers' needs; however, the backbone of services for each sector has the similar infrastructure. Hence, there's a standard base price for each service and will be additional add-on service charge depending on the complexity of customers' needs. Generally, the list price is set as gaining 30% profit margin, where 10%~20% margin is saved for the negotiation with clients to close the deal. For the strategic alliances, the profit margin is set as 0%~10% to increase the likelihood of cooperation opportunity.

5.4.2 Pricing for CanCan.com Online Platform Services

Through CanCan.com task-matching platform, the company charges service fee 5% of the total amount where solution seekers pay for freelancers.

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5.5 SOCIAL RESPONSIBILITY STRATEGY

CanCan Pte Ltd is passionate about making positive impact on the society. Educating and offering global working experience are the CanCan company's social responsibility to current talented specialists or students because we would like to see the next generation of talented specialists with global vision and profound skills can make this country better. This initiate has the following features:

- CanCan.com platform will select 10% of freelancers to waive the service charge. The criteria are (1)university students (2) the delivered projects is satisfied by the solution-seeker (3) humble beginnings will be first selected;

- Providing the internship program involving in the project to work with foreign customers;

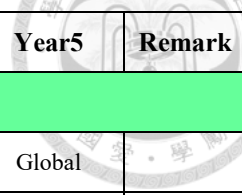- 10 % profit will be donated to the university IT lab.

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6. FINANCIAL PLAN

6.1 SALE FORECAST

In Billion US$	Year1	Year2	Year3	Year4	Year5	Remark
global IoT market size	194.68	249.20	330.76	457.29	520.40	
Industrial IoT (24%)	46.72	59.81	79.38	109.75	124.90	
Banking/Financial service + Agriculture (20% in IIoT)	9.34	11.96	15.88	21.95	24.98	1
Connected health (20%)	38.94	49.84	66.15	91.46	104.08	
Target market - Global (Banking/Financial service + Agriculture + Connected health)	48.28	61.80	82.03	113.41	129.06	
Asia Market Share	20%	25%	30%	-	-	2
Target market - Asia (Banking/Financial service + Agricutlure + Connected health)	9.66	15.45	24.61	-	-	
Business territory	Asia	Asia	Asia	Global	Global	3
Market size	9.66	15.45	24.61	113.41	129.06	

Table 7: Target Market Size Estimation

Calculation Methodology & Assumption:

- Remark #1: Assume that banking/financial service plus agriculture sector account for 20% of total industrial IoT market share

- Remark #2: Assume that IoT market in Asia region increases 5% incrementally to 40% in 2021

- Remark #3: Assume that CanCan Pte Ltd expands the business globally since year4

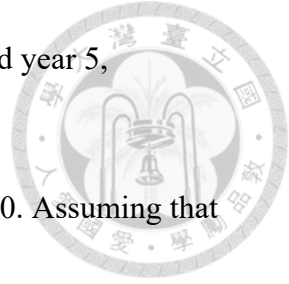| In US$	Year1	Year2	Year3	Year4	Year5	Remark
Revenue from CanCan Pte Ltd Direct Engagement Service						
Business Territory	Asia	Asia	Asia	Global	Global	
Target market size (in Billion)	9.66	15.45	24.61	113.41	129.06	
Market Capture Rate	1%	2%	3%	1%	2%	1
Total market size by CanCan Pte Ltd	0.097	0.309	0.738	1.134	2.581	
Growth rate	-	220%	139%	54%	128%	
# of clients	6	19	46	70	160	
Average service fee for each case	$25,000	$25,000	$25,000	$25,000	$25,000	
Estimated total revenue	$150,000	$475,000	$1,150,000	$1,750,000	$4,000,000	
Revenue from CanCan.com Online Platform						
Total IoT startup company	1250	1500	1800	2160	2592	2
Growth rate	-	20%	20%	20%	20%	
Market Capture Rate	1%	3%	5%	8%	12%	3
Potential # of clients	13	45	90	173	311	
Average service fee for each case	$3,000	$3,000	$3,000	$3,000	$3,000	
Potential transaction on platform	$39,000	$135,000	$270,000	$518,400	$933,120	
5% service fee by CanCan.com	$1,950	$6,750	$13,500	$25,920	$46,656	
Revenue from Selling Advertising Space on CanCan.com						
Growth rate of # users	-	20%	20%	20%	20%	
Estimated revenue	$0	$4,000	$4,800	$5,760	$6,912	
Total Revenue	$151,950	$485,750	$1,168,300	$1,781,680	$4,053,568	

Table 8: Sales Forecast

Calculation Methodology & Assumption:

- Remark #1: Assume the captured market share in first three years is 1%, 2% and

  3% of total Asia market. Starting from year 4, the business will expand globally
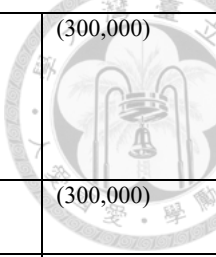
and the goal of market share is set as 1% and 2% in year 4 and year 5, respectively.

- Remarket #2: In 2017, the number of IoT startups is over 1250. Assuming that the growth rate of IoT startups will increase 20% annually.

- Remark #3: CanCan.com online platform is strategically targeted for startups, so the capture market share is aggressively targeted to grow from 1% to 12% in 5 years timeframe by focused marketing campaign.

6.2 PRO FORMA FINANCIAL STATEMENT

Financial Statement & 5 Years Projection (Currency: NTD Dollars)					
	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE:					
Total Revenue (in US$)	151,950	485,750	1,168,300	1,781,680	4,053,568
Total Revenue (in NTD$)	**4,586,625**	**14,821,208**	**35,186,637**	**54,160,036**	**122,708,465**
EXPENSES:					
Salary	(12,000,000)	(12,000,000)	(18,000,000)	(24,000,000)	(36,000,000)
headcounts	10	10	15	20	30
Employment Benefit Expense	0	(3,600,000)	(5,400,000)	(7,200,000)	(10,800,000)
Marketing Related Expenses	(500,000)	(1,000,000)	(1,000,000)	(1,500,000)	(1,500,000)
Technology Expenses	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)

Operations and Administration Expenses	(100,000)	(200,000)	(200,000)	(300,000)	(300,000)
Rent	(150,000)	(150,000)	(250,000)	(250,000)	(300,000)
Social Responsibility Expense	$0	($100,000)	($200,000)	($300,000)	($500,000)
Total Expense	**($8,880,000)**	**($18,050,000)**	**($26,050,000)**	**($34,550,000)**	**($50,400,000)**
EBITDA	($4,293,375)	($3,228,792)	$9,136,137	$19,610,036	$72,308,465
Depreciation & Amortisation Expense	($137,599)	($444,636)	($1,055,599)	($1,624,801)	($3,681,254)
Profit before Income Tax	($4,430,974)	($3,673,428)	$8,081,308	$17,985,235	$68,627,211
Income Tax Expenses	$0.00	$0	($1,373,776)	($3,057,490)	($11,666,626)
PROFIT OF YEAR	($4,430,974)	($3,673,428)	($6,707,262)	$14,927,745	$56,960,585

Table 9: Pro Forma Financial Statement

Calculation Methodology and Assumption

- Currency is New Taiwan dollars;

- The following expenses are estimated in accordance with norm in Taiwan for successful and financially-sound company, which are:

  - Employment benefit in IT industry is normally budgeted by the majority of the employers in Taiwan at 30% of total salary expense; and

  - Depreciation is at 3% of the total revenue.

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- Income Tax Expenses are calculated based on 17% for entity with annual turnover announced by the Taiwanese Taxation Office.

6.3 PROFIT MARGIN ANALYSIS

Conservative approach was taken when calculating the sales forecast in the above section. Actual sales are likely to be higher than the above sales forecast because of the following reasons:

- The sales forecast did not include the sales revenue generated from non-IoT business segments; and

- The service fee might be much higher than the average price listed down in the abovementioned estimation.

With the above sales forecast and projected profit and loss, CanCan Pte Ltd starts to enjoy profit margin since year 3 and will make the break-even at year 4.

	2017	2018	2019	2020	2021
Projected Profit Margin (Net Profit / Sales)	-97%	-25%	19%	28%	46%

Table 10: Net Profit Margin Forecast

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7. EXIT OR EXPANSION STRATEGY

According to statistic in respect of IoT market, the market continues growing for the next 5~10 years. CanCan Pte Ltd will start enjoying the profit margin since 2020 and will have considerable return for the following years because of the penetration to the market. By the brand recognition and 3 years of practical experience operating in Asia region, CanCan Pte Ltd will expand the market to the global market in 2020. Besides, the initial target market is only focused on the banking service, agriculture and connected health, CanCan Pte Ltd will explore to different sectors to stream more revenue.

However, as IoT technology becomes mature, small to medium companies, which are CanCan Pte Ltd target customer base, tend to be acquired by large scale companies. Even though IoT market continues growing, the target customer base might decline gradually. This exit strategy is to seek an acquirer with solid financial backing and technology-oriented capability so that the operation of CanCan Pte Ltd service and CanCan.com online platform can continue and grow.

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