Motivated by my 2010 field investigation of the rural credit market in Thailand, which revealed the appalling extent to which low-income entrepreneurial-minded population are underserved by existing capital-providing sources, including formal financial institutions and the microfinance movement, I conducted further exploration of alternative funding models, such as online-social lending organizations, as well as assessment of innovative financial products, in the hope of identifying novel micro-funding model capable of providing better financial inclusion for a group of financially underserved population at the base of the economic pyramid, representing 3 billion of the world’s population. With main characteristics of the potential platform in mind, I design a novel online peer-to-peer social investment platform, offering incentive-compatible revenue-sharing product, which solves many of the problems inherent in the developing world’s credit markets. This financial product exhibits the beneficial features of a quasi-equity financing scheme, while overcoming the implementation challenges that have prevented widespread adoption of quasi-equity financing instruments in MFIs for many decades. The business plan for the platform is illustrated in one main section of this paper, while another section features in-depth analysis of the revenue-sharing model and complementary mechanisms used to align Investor-Client incentives and alleviate informational asymmetry problems.

Acknowledgments: I am immensely grateful to my advisor, Professor Matthew Jackson, for his continued support and encouragement to pursue my passion and topic of interest, as well as for his expertise, insights and advice which are invaluable in the creation of this thesis. I am also forever appreciative of the treasured comments and enduring support from my father. In addition, I would like to thank Wichsinee Wibulpolprasert for her kind guidance. Lastly, I am truly thankful for the wonderful moral support from my mother, whose tender and loving heart inspired me to fight against global poverty, and Suthinand Jirakulpattana (Pao) who helped transform the many sleepless nights at the GSB library into delightful and cherished moments.
OUTLINE OF MAIN SECTIONS

TITLE PAGE | ABSTRACT

SECTION I  INTRODUCTION
SECTION II  BACKGROUND INFORMATION
SECTION III BUSINESS PLAN
SECTION IV  INCENTIVE COMPATIBLE REVENUE-SHARING MODEL
SECTION V  ANALYSIS OF OTHER PLATFORM FEATURES
SECTION VI  PLATFORM FEATURES SUMMARY
SECTION VII CONCLUSION
SECTION VIII BIBLIOGRAPHY
TABLE OF CONTENT

SECTION I: INTRODUCTION 1

❖ Charity versus Social Entrepreneurship .................................................. 2
❖ Microfinance and Poverty Alleviation ......................................................... 4
❖ My Field Study of Credit Market in Rural Thailand...................................... 6
❖ Layout of the paper .................................................................................... 7

SECTION II: BACKGROUND INFORMATION 9

1. Problem Statement .................................................................................... 9
   ❖ Global Economic Pyramid
   ❖ Poverty and Income Inequality in Thailand
   ❖ Funding Gap: Defining Target population
   ❖ Importance Of Capital Access To Small And Micro Entrepreneurs

2. Credit market in Thailand ........................................................................ 14
   ❖ List of Major Capital Sources
     • Financial institutions
     • Microfinance Sector
   ❖ Description of Capital Sources Offering Service to Target Population & why they are not serving well target population
     • Commercial Banks
     • Informal Money Lenders
     • Special Financial Institutions (SFIs)
       o BAAC
       o Government Savings Bank
       o SME Bank
     • Government-subsidized microfinance programs
       o Revolving Village Funds (RVF) – Village Banks
       o Debt Moratorium program
   ❖ Regulatory environment for non-banking lending institutions
   ❖ Why traditional Microfinance has not taken roots in Thailand

3. Alternative Microfinance Innovations ...................................................... 28
   ❖ Social Lending
     o Lessons from Crowdfunding
     o What is Social Lending
     o Problem of Trusts
       ▪ Higher Tier Problems
       ▪ Lower Tier Problems
         • Adverse Selection
         • Moral Hazard
     o Social Lending Organizations
Prosper, Zopa

- Peer-to-peer Microfinance
  - Main difference between traditional social-lending and peer-to-peer microfinance
  - Social Lending as Solution for Developing Countries’ Inefficiency in Credit Market
  - Kiva
  - Zidisha

- Exhibit 1: Table summary of relevant capital sources
- What is lacking in current peer-to-peer microfinance?
  - Development of Crowdfunding Platform for Low-Income Entrepreneur’s Ventures
  - Alternate Forms of Equity Financing

### 4. Key takeaways

- Key features to be incorporated into proposed platform
  - Online peer-to-peer financing platform
  - Alternative Financing model
  - Others
- Advantages of proposed model over existing capital sources

## SECTION III: SASOM BUSINESS PLAN

### OPERATIONAL MODEL

1. Sasom Micro-Capital Platform

   - Objective
   - Legal Entity
   - Operational Platform (peer-to-peer)
   - Target Population
   - Financial Products
   - Why is Sasom effective and sustainable in alleviating poverty in target regions

2. How the system works

   - System Description in a Nut-Shell
   - Exhibit 2: Operational Flow Chart

3. The Investors

   - Incentives for Investment
     - Financial
     - Philanthropy
     - Community
     - Interest for International Cause
   - Exhibit 2: Lenders’ application
Role of investors on the platform
Registration
Bidding
Revenue-sharing contracts
Funds transfer and Disbursement
Communication between Investors and Clients
Share of investment fund repayments
Anonymity of Investor’s Profile and information
Tax treatment of investments
Fees

4. Entrepreneurs ................................................................. 73
   • Entrepreneur’s incentives for joining the platform
   • Role of entrepreneurs on the platform
   • Exhibit 3: Entrepreneur’s application
   • Information on Entrepreneur’s Profile page
   • Requirements for the entrepreneurs in joining Sasom
   • Amount asked for funding
   • Fundraising Process
   • Funds Transfer and Disbursement
   • Payments of Revenue-Sharing Fees and Repayments of Investments Funds
   • Communication between Investors and Clients
   • Total cost/fees to entrepreneurs

5. Revenue-sharing rate ......................................................... 83
   • How to calculate revenue-sharing rate
   • Equivalent annual flat interest rate in debt-financing

6. Terms of repayment .......................................................... 85
   • Financial reporting
   • Repayment schedule and rules
   • Consequences of delayed repayments
   • Measures taken when clients default on repayments

7. Entrepreneur’s Performance Record ..................................... 90
   • Feedback rating from investors
   • On-time payment statistics
   • Monthly updates to investors
   • Achiever and Honesty points
   • Dishonest Points
   • Prudency Points
   • Number of successful rounds and statistics

8. Transaction ................................................................. 92
   • Transferring funds between Sasom and entrepreneurs
   • Transferring funds between Sasom and investors
Currency fluctuation

9. On-site Assistance: Client Relation Associates ........................................ 94

10. Internet Centers / Online Access for entrepreneurs ................................ 94

11. Communication Venue for Investors and Clients ..................................... 95

12. Platform support .................................................................................... 95
   ❖ Online-training program
   ❖ Language translation service

13. Exhibiting Transparency ........................................................................ 96
   ❖ Access to calculation on all types of fees
   ❖ Transaction details posted
   ❖ No guarantees
       o Investment repayment
       o Entrepreneur’s information

BUSINESS MODEL ..................................................................................... 96

1. Revenue Structure ................................................................................. 98
   ❖ Funding Administration Fees
   ❖ Registration Fees
   ❖ Legal Contract Fees
   ❖ Translation Service Fees
   ❖ Fund Transfer Service Fees
   ❖ Other fees

2. Cost Structure ....................................................................................... 100
   ❖ Initial startup costs
   ❖ Office Rental
   ❖ Salary and Compensation
   ❖ Internet Web Maintenance Cost
   ❖ Other expenses

3. Breakeven Analysis .............................................................................. 101

MARKETING ............................................................................................. 103

❖ Countries serviced
❖ Reaching out to Entrepreneurs
SECTION IV: INCENTIVE COMPATIBLE REVENUE-SHARING MODEL  103

- Introduction ..................................................................................................................104
- Incentive-Compatible Revenue-Sharing contract .......................................................106
  - Explanation of adverse selection and moral hazard
  - Brief System description
  - Parameters details
  - Terms and schedule of repayment
  - Assumptions for further incentive structure analysis
  - Auditing rule and reward-punishment function
  - Analysis of strategies an entrepreneur takes, given incentive structure
- Proof of perfect risk-sharing by revenue-sharing financing .................................123

SECTION V: ANALYSIS OF OTHER PLATFORM FEATURES  125

- Prevention of competition from banks
- Public and investors’ Perception of platform
- Gradual repayment, Contingent renewal, dynamic incentive

SECTION VI: PLATFORM FEATURES SUMMARY  128

- Exhibit 4: Complementary table
- Exhibit 5: Platform Features – Problem Solved Table

SECTION VII: CONCLUSION  130

SECTION VIII: BIBLIOGRAPHY  134
SECTION I: INTRODUCTION

On the occasion of the International Day for the Eradication of Poverty, 17 October 2002, Mr. Kofi Annan of Ghana, a well known former Secretary General of the United Nations, beautifully articulated his belief on global economic inequality as follow:

Let us recognize that extreme poverty anywhere is a threat to human security everywhere. Let us recall that poverty is a denial of human rights. For the first time in history, in this age of unprecedented wealth and technical prowess, we have the power to save humanity from this shameful scourge. Let us summon the will to do it.\(^1\)

During the past several decades, there have been numerous efforts and attempts at alleviating poverty, especially in poor developing countries. Among these endeavors, microfinance institutions have been generally credited for lifting millions of the poorest people out of absolute poverty. But who are these “poorest” people? First of all, it is important to realize that there are several levels of poverty at the “Base of the Pyramid” (or BoP).

As can be seen from the picture of the economic pyramid presented in the following figure, the BoP represents collectively over four billion poor people in the world who live under $5 a day. The BoP can be sub-divided into three segments, representing different levels of poverty. Since their beginning four decades ago, microfinance institutions (or

\(^1\)Kofi Annan, 2002
MFIs) have traditionally targeted their efforts on the poorest people, such as those in Bangladesh and Africa, who earn less than $1 a day and live at the lowest rung of poverty, under the “extreme poverty” category. Meanwhile, the other three billion poor people in the two upper segments at the BoP, namely those under the “subsistence” category who earn from $1 to $3 a day, together with those under the “low-income” category who earn from $3 to $5 a day, have been relatively overlooked and underserved by the traditional microfinance movement.

**Charity versus Social Entrepreneurship**

How many ways can we contribute to the alleviation of global poverty? Two of the most cited ways to do this will be discussed here. The first way is the philanthropists’ way, by which wealthy individuals and organizations donate their money to help the poor. Charitable donations have always played an important role in alleviating and relieving the suffering of the world’s underprivileged people, especially the very poor at the bottom rung of the BoP. One of the most famous persons who have been crusading against widespread poverty at the pyramid’s base is none other than Mr. Bill Gates who, ironically, is sitting at the pinnacle of the pyramid itself. Since 1994, the Bill & Melinda Gates Foundation have given out over $25 billion, the majority of which are focused on improving the health and livelihood of poor people in developing countries.²

Another increasingly important and popular way to fight global poverty is through social entrepreneurship. What is “social entrepreneurship?” According to a definition given by the Skoll Centre for Social Entrepreneurship, University of Oxford,

> Social entrepreneurship is about innovative, market-oriented approaches, underpinned by a passion for social equity and

²“Bill & Melinda Gates Foundation Website.”
environmental sustainability. Ultimately, social entrepreneurship is aimed at transformational systems change that tackles the root causes of poverty, marginalization, environmental deterioration and accompanying loss of human dignity³.

In essence, it is the process by which social entrepreneurs use business principles and entrepreneurial practices to help create social changes and solve society’s most pressing problems – such as global poverty and economic disparity. While a typical business organization’s bottom line is to make profit for its shareholders, a social enterprise typically aims to achieve simultaneous double bottom lines of economic returns (profits) and distinct social impact. Unlike charitable organizations, which donate parts of their profits to social causes, social enterprises make profits as a means to achieve and sustain their social goals. Comparing to charity, the social-enterprise model offers some important advantages, for examples:

1. As ongoing sources of funds to help alleviate global poverty, social enterprises’ profits from their market-based operations are considered more reliable and sustainable than charitable donations, which are subject to such factors as occasional changes or shifts in philanthropic focuses and intents.

2. Social enterprises usually incorporate strategies and practices that encourage and empower the poor to help themselves. They may employ some of the poor people or teach them to make a better living. For example, a Hindustan enterprise has helped to “create entrepreneurs by training 50,000 women to go door-to-door educating consumers and selling soap, toothpaste, and other products.”⁴ In other words, while charitable donations are like giving fish to the poor,

³“Skoll Centre for Social Entrepreneurship, University of Oxford Website”
⁴Rangan, Chu, and Petkoski (2011)
social enterprises also attempt to give the tools for the poor to catch fish for themselves, and share them with others.

3. Modern social enterprises, especially the newer business-models based on the internet, are able to transcend national boundaries to connect people from all parts of the world, and represented by all segments of the economic pyramid. In other words, it offers the opportunity for people from all walks of life to participate and contribute to the global poverty alleviation movement, without limiting the work to only a handful of wealthy individuals and organizations\(^5\).

The above arguments are not meant to downplay the important role of charity in helping to alleviate global poverty. On the contrary, charity is certainly a refreshing and inspiring evidence of human compassion, empathy and concern for fellow human beings. However, this paper will focus on social enterprises as the preferred model offering sustainable, market-based solutions to poverty alleviation.

**Microfinance and Poverty Alleviation**

As mentioned earlier, during the past several decades, the best known social-enterprises credited with helping alleviate global poverty are the microfinance institutions (or MFIs). Dr. Mohammed Yunus of Bangladesh was usually credited for creating and popularizing the microfinance movement during the late 1970s and early 1980s. Subsequently, he received a Nobel Peace Prize in 2006 for his efforts in helping millions of the poorest Bangladesh people, especially women, to rise above extreme poverty.

But what exactly is microfinance and how does it help alleviate global poverty? In essence, the term “microfinance” refers to the provision of small, micro loans to very poor

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\(^5\) Rumiany (2007)
people who would otherwise be unable to access formal credit systems, because they are usually considered credit-unworthy by banks and other financial institutions. In principle, these small loans, when used wisely and productively, would enable the poor to earn more income and improve their livelihood, thus empowering them to ascend the economic ladder and rise above suffocating poverty at the crowded bottom of the pyramid. Hence, by providing and distributing these micro-loans to millions of poor people around the world, microfinance has been considered instrumental and relevant in alleviating global poverty.

However, microfinance is not without its critics and skeptics. In an article published in the *Stanford Social Innovation Review* in 2009, Dr. Areel Karnani, Associate Professor of Strategy at the Stephen M. Ross School of Business, Michigan University, argues that many advocates of microfinance “do not acknowledge that the poor lack education, information, and other economic, cultural, and social capital that would allow them to take advantage of – and shield themselves against – the vagaries of free market.” Although this may be the case, especially for the poorest people at the BoP, it would be an over-generalization to assume that all poor people, particularly those at the higher levels of the BoP, are inherently ignorant and unworthy of access to financial resources.

One reason that prompts Karnani to doubt the merits of the microfinance movement may be traced to the fact that microfinance was born out of the work of Dr. Yunus, in his attempt to help and empower the poorest people in Bangladesh. Because of this origin, microfinance institutions have traditionally focused their efforts on the poorest people at the lowest rung of the pyramid, who are most likely to exhibit the worrisome socio-economic symptoms quoted by Karnani. The observation that microfinance institutions have traditionally targeted only the

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6 Yunus (1997)
7 Karnani (2009)
world’s poorest people has also given rise to some important questions: “Has microfinance been equally successful and effective in empowering poor people above the lowest rung of poverty?” and “If not, what are the reasons?” In section II of this paper, I will address these questions by providing some examples, from my primary research and literature reviews, demonstrating the pros and cons of various microfinance programs, their successful acclaims and also their criticisms.

**My Field Study of Credit Market in Rural Thailand**

Wondering if MFIs had been successful in rural Thailand, I decided to propose an independent student research to the Stanford UAR (Undergraduate Advice and Research) on the topic of “Rural Credit Market in Northeastern Thailand,” as an economic-majored sophomore. When my research proposal was finally approved and supported with a Small Grant by Stanford, I spent my 2010 winter break conducting field investigation in the remote villages of Srisaket, a representative agricultural province in Northeastern Thailand, where many of the country’s poorest populations reside. The two main objectives of my field study were:

1.) To investigate and evaluate the credit systems currently prevalent in Thailand’s rural financial markets, including microfinance institutions,

2.) To identify the socio-economic characteristics of the Thai rural population, and their potential impact on the microfinance movement in Thailand.

Such knowledge would hopefully lead to the design and creation of a better financial credit system for the rural communities, thus empowering the poor villagers to expand their economic and entrepreneurial activities and increase their income. This, in turn, would help alleviate rural poverty in Thailand and close the considerable gap of the nation’s economic inequality, especially between the urban and rural populations.
With such a mission, and the help of a local assistant, I proceeded to work closely with the rural villagers, distributing and collecting questionnaires, as well as conducting in-depth interviews with participating villagers.

The findings from the investigation will be addressed in Section II of the paper.

**Layout of the Paper**

As the main thesis and thematic discussion of this paper, I am going to propose a new enhanced online business-model of a capital-providing platform which offers innovative financial products and mechanisms to facilitate sustainable and effective implementation of the model, without foregoing its integrity to the problems of trusts and information asymmetry. The platform is designed to empower entrepreneurial-minded low-income population in Thailand, and in other countries with similar socio-economic characteristics, many of whom fall into the three billion people funding gap at the BoP, with better, more relevant tools to help them earn more income, improve their livelihood, and ascend the economic ladder to rise above their current state of poverty, thus helping to create a better world for humanity to exist with equality, sustainability and without hunger.

In the following sections, I will first discuss relevant background information, presenting theoretical bases, literature reviews, and results of my field research in Thailand, which support the arguments of my proposed thesis and thematic discussion. Second, the paper proposes a business plan for the newly designed peer-to-peer social investment platform offering innovative revenue-sharing financial model, presenting most of the information required to inform potential investors interested in the platforms, as well as potential users of its operational model. Third, I offer a more theoretical treatment of the platform features, with in-depth analysis of the incentive
structures and mechanisms incorporated to ensure an incentive-compatible operation, free of higher-tier and lower-tier problems of trusts.
1. PROBLEM STATEMENT

- *Global Economic Pyramid*

Imagine a pyramid made of people, with human beings as its building blocks. Then further imagine Mr. Bill Gates and his close friends sitting at the top of the pyramid, and a few billion poor people forming its huge base. Essentially, you are looking through your mind’s eyes at the picture of the infamous “economic pyramid.” In a nutshell, the economic pyramid represents graphically the worrisome state of the world’s widespread poverty and socio-economic inequality. The top of the pyramid signifies the handful of people living in extreme wealth, while the bottom or the base of the pyramid represents the largest, and poorest, socio-economic segment of world population, who still live in dire poverty. Today, over four billion people, or roughly 70% of the world’s population, still live on less than $5 a day, with over one billion living on less than $1 a day at the bottom of the pyramid.\(^8\) Obviously, poverty of such magnitude must feel as heavy as the great Egyptian Pyramids crushing on the frail, human shoulders of these underprivileged fellow world citizens. Many believe that the responsibility to share these grave burdens, to alleviate global poverty and economic disparity, is rested on the giant shoulders of humanity itself, on the shoulders of people from all sectors of the economic pyramid, especially those in the higher segments who are better equipped with the resources and tools to help their fellow human beings.

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\(^8\) Rangan, Chu, Petkoski (2011)
Poverty and Income Inequality in Thailand

Income inequality in Thailand is among the highest in Southeast Asia. The richest 20% of households account for over 50% of the total household incomes in Thailand. The Gini Index of household income (a measure of income inequality) of 0.51 is among the highest in Southeast Asia.

Even though the poverty rate in Thailand has declined from 33.8% in 1988 to 7.8% in 2010 (most up to date), a relatively low poverty rate in comparison to other middle-income countries, population in the agricultural sector, and in the barren northeastern region, remain significantly poorer than the rest of the country. It is worth noting that, although the majority of Thailand’s workforces (nearly 40% of the country’s 40 million workforces) work in the agricultural sector, the sector produces only 13% of Thailand’s GDP, while those in the manufacturing and service sectors account for over 80% of the country’s GDP.

Funding Gap: Defining Target Population

As demonstrated in Figure 1, financing opportunity through formal financial sector is abundant for large companies, and relatively sufficient for medium sized businesses, due to the availability of collateral and perceived credit-worthiness of the entrepreneurs running the business. Financing for micro (very small) businesses is also becoming increasingly available, as a result of the microfinance movement during the past few decades. On the other hand, small businesses and upper-tier of micro-businesses are largely deprived of proper capital sources, mainly because their socio-economic attributes do not match either one of the two main types of population targeted by major sources of capital, thus creating a gaping void of financial

9 CIA world Fact Book
inclusion. In particular, they are not affluent enough to own collateralizable assets normally required in accessing formal financial institutions, while their state of poverty is not as deep as those targeted by traditional microfinance and many of the features designed for the poorest population do not match the specific financial requirements of these in-between population.

The accompanying illustration (Fig. 2) demonstrates the potential size of the population currently underserved by existing capital market. The population group at the higher levels of the BoP who encounter difficulty accessing commercial banks as their capital sources and are not sufficiently targeted by current microfinance movements, includes 10 “low-income” (living on between $3 to $5 a day), and “subsistence” level segments (living on between $1 to $3 a day) as shown in the Economic pyramid, according to definitions given by Rangan, Chu, and Petroski.

Low-income group represents 1.4 billion people (25% of world population) and subsistence group represents 1.6 billion people (29% of world population). Therefore, the financially

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10Rangan, Chu, and Petkoski (2011)
underserved people amount to a large group of 3 billion people, or over half of the world population.

Thailand is one example of the case whereby the poorest populations in the country are still largely underserved by existing capital market. Approximately 20% of the country’s population fall into the low income and subsistence categories, while less than 0.35% of the Thai populations can be sorted into the extreme poverty segment.

My field investigation of the financial credit markets in rural Northeastern Thailand in 2010 also confirms that, although Thai rural populations are poorer than their urban citizens, they are not as poor as their counterparts in some other developing countries, such as Bangladesh and several African nations. As a result of data analysis on personal and household incomes obtained from the survey, I have found that poor villagers in the area could be classified as living partly within the “subsistence” category, and partly within the “low income” category, the two top segments at the base of the pyramid.

Therefore, it is important to note that the Thai rural villagers in these income groups possess different socio-economic profiles from the microfinance-focused group of Bangladesh population who are considered to be under the “extreme poverty” category (under $1 a day) at the Pyramid’s bottom. This partially explained why microfinance has not successfully taken roots in Thailand and other Southeast Asian countries with similar socio-economic characteristics.

Hence, this paper aims to study and tackle the problems associated with inadequate financial access and inclusion by a group of relatively underserved people, which can be defined as low-income entrepreneurial-minded population in developing countries.
 Importance Of Capital Access To Small And Micro Entrepreneurs

Capital access and costs are ranked as one of the most constraining features of SMEs, resulting in smaller firms reporting higher financing obstacles along the capital structure spectrum than larger firms. According to Beck, Thorsten, 30% of large firms use bank funding to finance new investment relative to 12% of smaller firms, illustrating the extent banking systems systematically underserve the SME sector relative to larger firms. This further shows that those running micro and small businesses are even more underserved by the banking system, without the support of the microfinance service.

Since smaller firms’ financing obstacles have almost twice the effect on their growth as larger firms’ capital constraints, giving them sufficient funding opportunity is crucial to their business and economic development. The provision of small amount of capital to these people, who would use it wisely and productively, would enable them to earn more income and improve their livelihood, thus empowering them to ascend the economic ladder and rise above the crowded bottom of the pyramid.

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11 Beck, Thorsten (2007)
2. CREDIT MARKET IN THAILAND

❖ List of Major Capital Sources

1² Financial Institutions in Thailand comprise 5 categories:

1) Domestic commercial banks, licensed by the Ministry of Finance (MOF) and regulated by the Bank of Thailand (BOT)

2) Foreign commercial banks

3) Government banks, banks with special mandate by the Government
   a. Bank of Agriculture and Agricultural Cooperatives (BAAC)
   b. Government Housing Bank
   c. Government Savings Bank
   d. Export Import Bank of Thailand
   e. Islamic Bank of Thailand
   f. Small and Medium Enterprises Development Bank of Thailand (SME Bank)

4) International Banking Facilities (IBFs), licensed by the MOF to engage in offshore and domestic lending

5) Securities Company, licensed to undertake securities brokerage, etc.

Only domestic commercial banks, BAAC, GSB, and SME bank claim to offer some types of service to the target population of low-income small entrepreneurs.

Microfinance Sector in Thailand comprises 4 categories:

1) The Thai government is the largest provider of microfinance services to low income population, through formal financial institutions such as Commercial banks and Special financial institutions (SFIs) such as the

1²“Thailand Ministry of Finance website”
o Bank of Agriculture and Agricultural Cooperatives (BAAC)
o Government Savings Bank (GSB)
o Small and Medium Enterprise Development Bank of Thailand (SME Bank).

2) Semi-formal MFIs, such as membership-based agricultural, savings and credit union co-operatives, and government-subsidized microfinance program such as
   o Village and Urban Revolving Fund (VRF)
   o Debt Moratorium programs

3) Informal community and member-based savings and credit groups, often supported by NGOs

4) Private Sector MFI – currently only one privately run MFI in Thailand is still in operation and reports to the US-based nonprofit Microfinance Information Exchange (MIX). Evidently, private-sector MFIs are practically non-existent in Thailand.

Description of Capital Sources Offering Service to Target Population

Why they are not serving the target population well?

1. Commercial Banks

The poorer villagers normally cannot borrow money from commercial banks for two reasons. First, without savings, collateral, or established credit histories, the poor villagers are considered credit-unworthy by conventional banking practices in Thailand. Secondly, most commercial banks consider the small loan-sizes requested by the poor villagers as inappropriate for the banks’ administrative structures. For these banks, giving tiny loan amounts to a large number of poor borrowers cannot justify the inherent loan-default risks and the relatively high costs of loan evaluation and administration per transaction.
The existence and prevalence of this collateral-based lending practice in Thai commercial banks had been previously documented and confirmed in a study by Menkhoff, Neuberger, and Rungruxsirivorn in 2010. The authors argue in their paper that loans can actually be given without collateral “through third party guarantees and borrower-lender relationships” and “through reducing loan size, reducing duration or increasing the interest rate,” but this ignores the fact that the majority of poorer villagers lack the financial knowledge and bargaining power to fruitfully negotiate such conditions with the banks. In actuality, they simply cannot convince the bank to give them collateral-free loans. Hence, the limiting practice of relying on collateral is still prevalent, and the poorer villagers still have no access to the banks’ financial credit.

In 2011, The Bank of Thailand (BOT) allowed commercial banks to engage in microfinance lending activities, featuring no collateral requirement, a credit limit of THB 200,000 (USD 6,000) and an annual interest rate cap of 28 percent. Initially three banks have expressed interest in expanding into the microfinance sector, largely because there is no minimum income requirement for borrowers. However, the interest rate cap has dissuaded these commercial banks from engaging in microfinance, as it restricts their pricing options and exposes them to high-risk population whose financial risk level is unknown and uncapped, while allowing them to charge only limited interest rate.

The involvement of commercial banks in microfinance is seen as a way of reducing operating costs and improving competition. However, very little advancement has been made since 2011. This new regulation will only be effective until 2014 and there is very little information on whether the regulation will be continued after this testing period.

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13 Menkhoff, Neuberger, and Rungruxsirivorn (2010)
2. Informal Money Lenders

Because poor villagers could not borrow money from the formal banking institutions, they have to turn to informal moneylenders, who charge very high interest rates, sometimes as high as 90% per annum, for their loans. Although these interest rates are illegally high and the informal lenders are usually considered “loan sharks,” they nevertheless provide an essential service to the underserved community of poor villagers, and thus continue to be a controversial but integral part of the rural informal financial system. As such, the results of my field investigation confirm those of a previous research by Siamwalla, et al. In the paper, the authors state that “Thailand has tried to increase rural farmers’ credit access by various forms of governmental intervention. But because formal lenders, such as commercial banks and the BAAC, were either unable or unwilling to solve the information problems involved in the broad range of rural credit transactions, the informal lenders, who charge interest rates many times higher than the formal sector, continue to thrive”\textsuperscript{10}.

3. Special Financial Institutions (SFIs)

3.1 BAAC

The Bank of Agriculture and Agricultural Cooperatives is an effort by Thai governments to intervene in the rural credit market for the benefit of Thai farmers. The borrowers have to be farmers registered as BAAC clients. They submit their loan proposals to a BAAC credit officer at their local branch or field office.

Different types of loans and duration designed to cater to various types of farmers’ financial needs are available. In order to be eligible for the loan, one of four loan security requirements must be met. The options include group liability, having multiple branch clients to stand sureties, and mortgage/collateral.
Although the government-subsidized BAAC charges reasonably low interest rates (around 9% per annum), in most cases, they still require collateral, such as land-ownership deeds, for their loans. This practice effectively excludes the poorer villagers who are not landowners from borrowing from the BAAC.

3.2 Government Savings Bank (GSB)

GSB is a state-owned bank operating under the supervision of the Ministry of Finance. It initiated the microfinance program in 2001, under the brand of “People Bank”. The program targets unbanked low-income people, particularly small entrepreneurs both in urban and rural areas. It combines savings mobilization and education training for entrepreneurs with microcredit at a flat 1% per month rate of interest and loans of up to USD 750 for first-time borrowers and USD 1,250 for subsequent borrowing. These loan ceiling is still considered quite small for upper-tier small business entrepreneurs.

GSB retail distribution network includes approximately 600 permanent branches, 21 mobile branches and 909 ATMs nationwide. The Bank employs deposit collectors and loan officers traveling by foot or by motorbikes to visit their customers on a regular basis.

Microsavings “People Bank” mobilizes savings to cultivate habits of savings from the customers. The savings habits of the individual, reflected by both the deposited amount and the frequency of deposits are taken into account for eligibility for the microloans. This partially excludes the low-income population who does not have a savings history or account with the bank.

On a positive note, currently GSB plans to offer new microfinance products and otherwise expand services in advance of the anticipated 2015 launch of the Association of South East Asian Nations (ASEAN) Economic Community (AEC). GSB has rolled out new products
targeted at the general customer base as well as newly offered microfinance products include insurance, savings, investment and credit options aimed at low-income people in rural areas.

In addition, GSB also maintains 17 million accounts and serves 63,000 community rotating credit associations with members in 80,000 villages under the Thailand Village and Urban Revolving Fund (VF) scheme. Rotating credit associations are member-managed funds to which members contribute periodically and from which one member may withdraw a lump sum each period.

3.3 SME Bank

With the objective of promoting and developing small business in Thailand, the Thai government promulgated the Small Industry Finance Corporation Act in 1991, and the Small Industry Finance Corporation (SIFC) was incorporated with a capital of TBH 300 million (USD 10 million).

On December 20, 2002, the Small and Medium Enterprise Development Bank of Thailand Act was enacted, re-establishing the SIFC as the “Small and Medium Enterprise Development Bank of Thailand” or SME Bank. The Bank’s mandate was “to conduct business with the aim of developing, promoting, and assisting small and medium enterprises to start-up, expand, or improve their businesses by providing loans, guarantees, venture capital, counseling and other necessary services as prescribed by the Act”.

Business types that are supported by the banks are production, mining, agricultural production particularly agricultural processing, and trading businesses, including wholesale, retail, import and export, and service businesses, as well as businesses supporting manufacturing, trading, Hotels and Tourist related industries, repair, transport and beauty salons, etc.
Loan Services: The SME Bank provides several types of loans or credit services to its entrepreneurial clients, such as those in the Export-Import businesses. The Bank also provides credit to those in specially promoted programs, such as Credit for Thai Kitchen to the World and Credit for Innovation programs.

Interest Rates: The Bank’s interest rates changed periodically according to market conditions and the BOT’s directive. As examples, the Minimum Lending Rate (MLR) in October 2011 was 7.25%, the Minimum Leasing Rate (MLSR) in May 2012 was 7.375%.

Equity Services: Apart from loan services, the Bank also offers other financial services, such as Letters of Guarantee and Joint Venture Services (Venture Capital). In a Joint Venture, the Bank provides the SME with equity capital, so that the SME can reduce interest cost and maintain a low, healthy debt-to-equity ratio. If the Joint Venture becomes successful and meets the requirements of listing in the Stock Exchange of Thailand (SET) or the Market for Alternative Investment (MAI), the SME will also be able to tap these domestic capital markets for additional equity financing. In order to qualify for the Joint Venture service, the SME must meet be in one of the business categories specified by the Bank, such as food, energy, alternative energy, electronics, and auto-parts.

Business Plans: When applying for a loan or joint-venture service from the Bank, it is mandatory that the SME complete a Business Plan, according to the Business Plan Format given by the Bank. The Business Plan serves to ensure that the SME has given detailed considerations to various factors in its business, and to provide the Bank with a solid starting point for its due diligence process.
Educating SMEs: To help SMEs’ development, the Bank also organizes frequent training sessions for SMEs, aiming to educate them in many important aspects of running an effective SME business.

To date, even though the SME Bank has helped thousands of SMEs in Thailand become successful, unfortunately, many smaller enterprises and low-income entrepreneurial individuals in the country do not have the opportunity to compete for the capital and financial services of the SME Bank.

4. Government-subsidized microfinance programs

4.1 Revolving Village Funds (RVF) or Village Banks

Thailand Village Fund is an abbreviated name for the official program: “Thailand Village and Urban Revolving Fund (VRF),” designed by the Thai government to increase rural credit and stimulate the rural economy.

In 2001, the Thai government launched the VRF program, promising to provide a million Baht (about $22,500 in 2001, or $34,000 according to the exchange rate in 2013) to every village and urban community in Thailand, as working capital for locally-run rotating credit associations (sometimes called Village Banks). The money – about $2 billion – was quickly disbursed to village banks in almost of Thailand’s 1474,000 villages and more than 4,500 urban communities. Now it comprises 17 million accounts with government funds provided as working capital to 63,000 community rotating credit associations with members in 80,000 villages as of 2012.

The idea of the Village Fund (VRF) is to create self-sustaining microcredit banks in each or Thailand’s villages and urban communities. The scheme is funded by governmental grants and funds are handled by special-purpose government banks, such as the Bank of Agriculture and Agricultural Cooperatives (BAAC). However, each village fund is run and administered by an

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14 Boonperm, Haughton, Khandder (2009)
elected local committee which has some discretion in setting loan amounts and interest rates.

Residents of the village are eligible to take out a loan, typically limited to an amount of 20,000 baht ($656 at 2013 exchange rate).

According to an article published in the January 1st, 2013, Edition of “The Economist,”

15 Thailand Village Fund (VRF) is one of the largest micro-lending programs in the world, lending out more money to more people than most other programs anywhere. The scheme’s outstanding loan portfolio totaled $4.9 billion in 2011, while the number of active borrowers stood at 8.5 million, most of which are poor people. And the numbers are growing. Hence, the Thai government has announced plans in late 2012 to inject $2.6 billion in additional capital into the program.

However, the results of village bank’s operation varied significantly among and within these villages. 16 Some of the poorest households financed their needs with the additional available credit but did not invest it. The result is “consumption grew, income for those in agriculture and other forms of business grew, and wages for laborers grew, but overall asset growth in the villages decreased,” stated Townsend. “Some households didn’t borrow any money but increased their consumption.” This is because they were aware of the available credit, and were more comfortable dipping into their “rainy day” savings. Others reduced their consumption in order to save up for larger investments. These are the group that ended up gaining substantially.

Through interviewing participating villagers during my field study in rural Thailand in 2010, I have found that “village banks” have been in existence for sometime but they are not very popular with the poorer villagers in the community. A village bank is essentially a kind of a microfinance operation in which small deposits by member villagers are pooled together and

15 The Economist (2013)
16 Kaboski and Townsend (2010)
subsequently re-lent to members who need to borrow small amounts of money. Interest rates for both deposits and loans are set by the village bank’s manager and his team, who are usually selected from wealthy and influential villagers.

Village banks offer interest rate advantage over informal moneylenders, but because of their usually limited funds, they have not gained significant status in the rural credit market.

Moreover, in many instances, village banks’ administrators have been found to set rules and regulations that favor wealthier members and discriminate against poorer villagers.

My findings in this respect are also echoed in a previous research paper by Coleman in 2002. In this paper, the author evaluates the impact and outreach of two microfinance “village bank” trial programs that target the poor in Northeast Thailand, namely the Rural Friends Association (RFA) and Foundation for Integrated Agricultural Management (FIAM). According to the author, study results indicate that participants in the program tend to be significantly wealthier than non-participants. The paper suggests two explanations.

First, the system operation was subject to corruption, since the wealthiest in the village often become program committee members and use their positions to borrow substantially more than the less influential villagers.

Second, lower income people are weeded out of the program by the imposed loan ceiling, which limits the amount of funds that an individual can take out according to their wealth level\textsuperscript{17}.

Although the ideas behind village banks have significant merits, mainly because they are owned by the villagers, run by the villagers and for the villagers, these microfinance operations have unfortunately been derailed by inefficient and fraudulent administrations, as well as a lack

\textsuperscript{17} Coleman (2002)
of sufficient scale to attract serious funds. To be successful, any future efforts to revive and reinvigorate the village bank system will have to take these factors into consideration.

4.2 Debt Moratorium program

On 2 May 2012, the Thai government has introduced a “three-year debt moratorium program” designed to help relieve the financial burden of poor debt-ridden farmers and low-income earners.

According to the Ministry of Finance (MOF), the program is collaboration between the government and a specialized financial institution (SFI), such as the Bank of Agriculture and Agricultural Cooperatives (BAAC). About 4 million people, with debt less than 500,000 baht (about $17,000) each, would be eligible for the debt moratorium. To prepare for the program, the BAAC would increase the Bank’s capital by another 10 billion baht.

Under the program, eligible borrowers have the option to choose to suspend their principal repayments for a period of three years, with interest rate reduced by three percentage point per year. The debt suspension program would run from September 1st, 2012, to August 31st, 2015.

Critics of the debt-moratorium program are worried that such a practice would create a damaging influence on the credit-discipline of the Thai people, encouraging irresponsible behaviors on the part of the borrowers, thus an unjustified waste of the tax-payers’ money.

اشتري مؤشرات التبادل هو من بين الأدوات المفيدة عند النظر في استراتيجية الاستثمار الناجحة. الأدوات المالية جيدة في هذا السياق، ولكن الأسواق المتغيرة يمكن أن تكون مهتمة جداً. بالإضافة إلى ذلك، فإن النظام القانوني والتنظيمي المتعلق بسوق الأسهم في بعض الأحيان يمكن أن يكون محدوداً.

وزيداً، المراجعة النهائية للأسعار جيدة في حالات تغطية السيناريوهات والتحكيمات المذكورة. على سبيل المثال، فإن المراجعة النهائية للأسعار فهي تشمل الرسوم والرسوم التي تعتبر من الطريقة الأكثر فعالية في هذا السياق. لهذا السبب، فإن الاستراتيجيات التي تستخدم هذه الأدوات النافعة في التحليلات المالية يمكن أن تكون مفيدة في حالات التحليلات المالية الخاصة بالشركات وثائق الأخبار التي تقدمها.

v Regulatory environment for non-banking lending institutions

There are certain prevailing factors that render the microfinance sector in Thailand to differ radically from those in several middle-income countries, such as the Philippines. Thailand ranks
near the bottom of the global communities in term of size and enabling environment for private-sector MFIs.

The Thai government is, in effect, the largest microfinance operator in the country. It provides small loans to poor and low-income populations through the creation of several special-purpose financial institutions (SFIs), such as the BAAC which provides small loans to poor and low-income households in the agricultural sector. The government-subsidized BAAC offers small loans to qualified clients (usually requiring land as collateral) at interest rates around 9% p.a. which is very low for a microfinance institution elsewhere in the world. Hence, any aspiring private-sector microcredit institution would have to face stiff competition from the government-sector MFIs in terms of interest rates.

Currently, the Thai government has issued strict control on the issuance of license to operate non-banking lending institutions. It also imposes a minimum registered capital requirement of BHT 50 million (approximately USD 1.7 million) for such an institution, and a restricting 15% interest rate ceiling on loans provided by such an MFI.

- Why traditional Microfinance has not taken roots in Thailand and serve well the target population’s capital needs

1. Different Socio-economic characteristics of Thailand’s poor population

In the Rangan, Chu, Petroski paper, the authors argue that business and value-creation strategies that are appropriately designed for people in certain socio-economic and income category may not work very well for people in different income categories\(^\text{18}\). Therefore, while strategies and practices normally associated with traditional microfinance operations, such as

\(^{18}\text{Rangan, Chu, and Petkoski (2011)}\)
very low loan ceiling (tiny loan amounts) and group lending (a group of several villagers borrow as a collective entity), may work well for the focused group in Bangladesh, they may not necessary work as well for the Thai rural villagers, who possess different socio-economic and income profiles.

Since our target population is most likely to build and run upper-tier micro-businesses and small businesses, it is important to carefully consider their specific financial needs. For many small or micro entrepreneurs in Thailand, the required financing usually exceed the loan amount capped by the loan ceiling normally set by most microfinance institutions. It is customary in group-lending model to use a one-size-fit-all approach and issue a first-time loan of US$50 (1,435 BHT) and a maximum of US$300 (8,611 BHT). These limits are in fact commonly used in much poorer countries in Africa, where these figures represent significant amount of money to a poor household. In the past, these tiny loan amounts were used as the limits in Northeastern Thai villages as well, and they were far too low to make a difference for the poor and low-income population in Thailand. In the current Village Revolving Fund (VRF) program, which is essentially a microfinance program organized by the Thai government, the limit is approximately 19BHT 20,000. This could still become irrelevant for many entrepreneurs running small or even micro businesses.

2. Regulations and licensing requirements are so strict that non-governmental organizations have stopped setting up microfinance shops.

Because of the stiff competition from the government sector MFIs, and the restricting regulatory environment in Thailand, the private sector microfinance institution in Thailand is close to non-existence. Currently, according to a data provider (Mix Market), there is only one private microfinance lender in Thailand. Among other things, private providers are unable to

19 The Economist (2013)
compete with the Village Fund, which is funded by government grants. Potential private MFIs are also discouraged by the cap on interest rate ceiling and the minimum registered capital requirement.

However, although these government Special Financial Institutions (SFIs) have increased rural credit and financial inclusion, they have been unable to serve our target population well. Therefore, additional private capital providers whose services are tailored towards the target population are sorely needed.

3. Past microfinance operations in Thailand have been derailed by inefficient and fraudulent administrations.

In many Village Bank models initiated in Thailand, the wealthiest in the village often become program committee members and use their positions to borrow substantially more than the less influential villagers. The result is that villagers became more reluctant to become involved with the program and less people are being given access to capital. Eventually, the many of these programs were abolished.

In the current Village Fund program, even though the program is funded by the government and facilitated by the BAAC, each village fund is run by an elected local committee that has some discretion in setting loan amounts and interest rates. It is possible that the operation could be contaminated by corruption, resulting in less people getting sufficient and proper access to capital despite the presence of the program.
3. ALTERNATIVE MICROFINANCE INNOVATIONS

❖ Social Lending

Lessons from Crowdfunding

“Crowdfunding,” has been termed in “Crowdfunding: Tapping the Right Crowd by Belleflamme, Lambert and Schwienbacher (2011) as 20 “the process of raising funds by tapping a general public (or the crowd).” It is also defined in “Crowdfunding: Disintermediated Investment Banking by Rubinton (2011) as 21 “the process of one party financing a project by requesting and receiving small contributions from many parties in exchange for a form of value to those parties. There are three investment opportunities to potential investors, namely donations, passive investments, and active investments.” Rubinton states that Crowdfunding is a financial model that answers the following questions about how our economy operates; Who decides which projects deserve financing?; What can we do to systematically reduce entrepreneurs’ exposure to the risk that they fail to cover their start-up costs? Kevin Lawton and Dan Marom also offer both positive and normative discussions of crowdfunding, touching on its unique ability to scale:

22 “The power of crowds is not just gaining access to ideas, it’s also very much about using the collective wisdom as a sorting and leading indicator mechanism which allows for scalability.”

Although Crowdfunding was originally utilized as a financing process for start-ups and creative projects that require small initial investments, leading to the creation of such online platforms as Kickstarter.com and SellABand.com which operate as financial intermediaries.

20 Belleflamme, Lambert and Schwienbacher (2011)
21 Rubinton (2011)
22 Lawton and Marom (2010)
between potential investors and start-ups, it can potentially be applied to an online micro-investment platform for the benefit of low-income entrepreneurs.

**What is Social-Lending (Peer-to-peer lending)?**

Although closely related to crowdfunding and microfinance, social-lending needs to be differentiated from both. Social lending differs from microfinance mainly because microfinance loans usually come from institutions rather than the ‘crowd’, while social lending’s capital comes from individuals around the world or the ‘crowd,’ and internet is a key vehicle in its operational system.

Crowdfunding differs mainly from social lending in that, it allows for a wider range of financing schemes through the three investment opportunities available to investors, namely donations, active investments and passive investments. Therefore, it does not subject low-income entrepreneurs to pure debt-financing policies which might not offer them the greatest benefits. As Lambert and Schwienbacher states in their paper, “rather than trying to get funded through credit, crowdfunding tries to have many people buy some form of equity and thus make an investment in a yet-to-be-proven idea.”

Klafft (2008) defines peer to peer lending as “online platforms where borrowers place requests for loans online and private lenders bid to fund these in an auction-like process.”

With the advent of the internet and its exploding popularity, the principles of microfinance have been modified and expanded to cater to the loan needs of not only the poor populations in developing countries but also those in advanced economies, such as the U.S. and Britain. Thus, a new breed of microfinance, based on the internet as the main medium of

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23 Lambert and Schwienbacher (2010)
24 Klafft (2008)
operation, has been created to serve not only the world’s poorest population but also those in the higher sectors at the base of the economic pyramid.

These platforms have effectively cut commercial banks and other financial intermediaries from the credit granting equation. The resultant cost savings are passed on to the borrowers, who benefit from lower interest rates on their loans.

**Problem of Trusts**

With the operational model based on an online platform, economic problem of trusts are prone to surface. These include two types of problems, higher tier problems and lower tier problems.

**Higher Tier Problems**

Higher tier problems are associated with trust in the institutions and in the controls it puts in place to ensure repayment of the loan. The funders must trust both the online platform and the local partners based in developing countries, in the case of peer-to-peer microfinance. This includes transparency in the money-transfer process, protection of personal information, and rules put in place to make sure lower tier problem on the part of the entrepreneur is ameliorated.

**Lower Tier Problems**

Lower tier problems are related to trusts in the recipient of the investment amount and his or her ability and willingness to repay the investment. Especially in social lending and peer-to-peer microfinance platforms, traditional methods of collateral and coercion contracts do not apply. There are two main sources of lower tier problems of trust, namely adverse selection and moral hazard.

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25 Van Damme (2011)
**Adverse Selection**

Adverse selection occurs before any contract is signed or transaction begins, and it is the hazard of not knowing what the other party could be hiding. In this context, this means lenders do not know whether the borrowing party is able to repay the loan, resulting in fewer loans being offered.

**Moral Hazard**

Moral hazard represents a potential danger after the parties have engaged in the contract. In this context, moral hazard means not knowing whether the funded party will use the fund to do as promised and not engage in different behavior after being granted the loan. This could be in the case where high interest rate induces a borrower to engage in more risky projects than needed, being slack in managing business venture after obtaining funds, or a borrower claiming he cannot repay the loan and keep the money.

Therefore, since social lending cannot rely on traditional means to deal with these trust issues, namely demanding collateral and rationing the credit supplied, as these are exactly what exclude low-income entrepreneurs from obtaining needed loans, social lending platform is required to find more innovative measures to tackle these principal-agent problems. This will be explored in depth in the later sections of this paper.

**Social-Lending organizations**

Many social-lending online platforms exist. However, each of them has its own operating system and procedure. Many of these platforms, although representing a version of social-lending organizations, are not actually pure forms of social-lending where individual lenders have the power to select to fund particular borrowers and lend money directly to
borrowers. Proposer and Zopa are examples of pure social-lending platforms. Kiva is a variation of the social lending model which targets low-income population and acts as intermediary between MFIs and lenders. Other microfinance online platforms, representing a hybrid of social-lending, include MyC4, Microplace and Zidisha. Zidisha whose target clients are low-income entrepreneurs, is the only microfinance online platform which can be considered closest to pure social-lending, as it truly connects the lenders directly with the borrowers.

**Prosper and Zopa’s Model:**

![Prosper/Zopa Lender Borrower $ $](image)

**Figure 1 : Prosper and Zopa Social-lending system**

Prosper.com was founded in San Francisco, USA in February 2006 and Zopa.COM is based in the UK and it has been operating since March 2005. These platforms are strictly online peer-to-peer lending platforms, without partnership with other microcredit institutions or field partners.

Prosper and Zopa’s lenders seek primarily to invest their money for interest income and returns on their investments, or essentially for monetary returns. Prosper concentrates its operation only in the US market, while Zopa in Europe
Prosper claims that, since its launch in 2006, it has become the world’s largest internet-based, peer-to-peer lending marketplace, with more than 1.22 million members and over $292 million in funded loans\textsuperscript{26}.

Lenders are encouraged to divide their investments into many borrowers and they can lend amounts as low as $50 (or £50 in Zopa). Duration of loan is 3-5 years.

The platforms can get competitive interest rates for both borrowers and lenders while simultaneously making their for-profit business model sustainable by eliminating financial intermediaries (commercial banks), charging a percentage from borrowers, collecting an annual percentage servicing fee on the remaining principal from lenders, as well as selling payment protection insurance services.

These fees are much lower than the spread bank has between the lending rate and the saving rate, because they don’t have the same level of fixed costs that banks have.

Alleviating Moral Hazard and Adverse Selection

- Prosper and Zopa overcome adverse selection by performing credit checks and categorizing borrowers into different risk-buckets which are assigned different interest rates.

- Prosper and Zopa deal with moral hazard by encouraging borrowers to form groups based on common interests or affiliation. The group leader is responsible for maintaining group’s good reputation. Even though this process is not regulated by Zopa and Prosper, the peer monitoring arrangement could lessen the moral hazard problem, as members realize that being in a group with bad reputation means increasing difficulty in receiving future loans at convenient rate and help ascertain that other members in the group act with the mutual benefit of the group in mind. This serves as a refinance threat.

\textsuperscript{26}“Prosper Website.”
Why they are not serving our target population

Prosper and Zopa serve borrowers in US and Europe, and their operating model only applies to countries or regions where credit history information is generally available. In Thailand and most of the developing countries, information regarding credit history is very difficult to obtain. Therefore, the system cannot be directly applied to serve borrowers in developing countries.

色々 Peer-to-peer microfinance

Main differences between traditional social-lending and peer-to-peer microfinance

Despite their similarity in using the internet as the operating platform, peer-to-peer microfinance platform such as Kiva and Prosper are different in their geographical focuses (international versus domestic), socio-economic target groups (poor people in developing countries versus not-as-poor people in the U.S.), and operating mechanisms (field partners versus strictly peer-to-peer).

Both models are thus significant and viable candidates as potent weapons against poverty, although in different battlefields and circumstances. Proper care and discretion should be exercised in selecting which model to emulate for the best impact in a given socio-economic and geographical landscape.

Kiva, a peer-to-peer lending platform for microfinance, operates differently from the traditional peer-to-peer lending platform as Zopa or Prosper. For Zopa and Prosper, interest payments are the main incentive for lenders to participate in the lending process. However, for Kiva, the interest earned from each loan fall, not into the hands of the lenders, but into the hands of Kiva Field Partners, whose responsibilities are to scout for potential borrowers, put up their stories on the web for the scrutiny of the lenders, and administer loans and transactions on the
Thus, Kiva’s operation relies mostly on philanthropic intents of the lenders who only receive principal repayments on their loans.

Kidisha, on the other hand, operates as a pure form of social-lending microfinance platform and connect the lenders directly with the borrowers without partnership with any for-profit, on-the-ground intermediaries. As such, Kidisha is able to pass on substantial cost-savings to its clients. In addition, its borrowers can transfer scheduled interest payments, and repayment of principal, to the lenders directly, providing lenders with financial returns and promoting a new level of operational transparency and integrity.

Another main difference is that Kiva and Kidisha are currently operating as non-profit organizations, and their operations are sustained by philanthropic contributions and minimal fees, while Prosper and Zopa are operating as for-profit organizations. These differences reflect the differing socio-economic landscapes between the group of countries (third-world developing countries versus the US and European countries) in which the non-profit (Kiva and Kidisha) and the for-profit (Prosper and Zopa) are operating.

**Social Lending Solution for Inefficient Credit Market in Developing Countries**

Common in the third world credit market is the scarcity of capital for people at the lower base of the economic pyramid. As such, the web-based peer-to-peer microfinance platform has increased the capital base to encompass global investors/lenders. The world of the Internet is not divided by national borders, races or prejudices. Social peer-to-peer platforms enable capital to flow freely from capital-rich countries to capital-scarce communities in third-world developing countries, where low-income population are usually denied adequate access to the services of formal financial institutions which consider these people poor credit risks.

Another main problem in the developing countries is that the small amount of loan allowed
for these low-income borrowers does not make up for the transaction costs incurred by formal financial institutions, so most traditional banks do not find it profitable to sustain such service. The open platform could alleviate this problem because it entails smaller transaction or operational cost than financial institutions do.

**Kiva’s Model**

![Diagram of Kiva's Social-lending system]

(Dashed arrow = flow of information, green arrow = flow of capital)

Founded in 2005, Kiva acts as intermediary for investors with access to the internet around the world and MFIs which operates in developing countries. These MFIs receives funds from investors registered with Kiva in order to service loans to customers at the local location. The MFIs or field partners are also responsible for posting information about their customers on the Kiva website. Multiple investors are able to give out loans to the same borrower listing, until the requested amount is fulfilled, and Lenders can lend as little as $25

As philanthropists, Kiva’s lenders receive no interest on their loans and would only expect the eventual repayment of their principal amounts. The money repaid to them could be re-lent to new borrowers of their choice. However, Kiva’s field partners in 60 countries, who act as intermediaries for Kiva and the borrowers, charge interest set by themselves from the borrowers, so that these local microfinance institutions will be able to cover their operating costs in loan
disbursements and collections, as well as make profits to sustain their operations\textsuperscript{27}. Kiva itself doesn't charge interest to its Field Partners and does not provide interest to lenders. Kiva also gives Field Partners the option to cover currency losses.

Since it was founded in 2005, Kiva's 680,000 lenders have given $280 million in loans, through 146 field partners and 450 volunteers, to 715,000 entrepreneurs, in 60 countries.

Some of the disadvantages found in the Kiva model are

1. **Potentially Unsustainable Platform**, as a result of following main reasons.
   
   1.1 Lack of inherent client screening mechanism on the part of the Kiva platform. For Kiva, the borrowers are 100\% serviced since there are more lenders than borrowers in the market. Even though the clients are initially screened by the local MFIs, investors should also be incentivized to perform their own screening and select borrowers based on their potential to carry out the business to ensure the quality of the borrowers which is crucial to the long-term operation of the platform

   1.2 Over reliance on philanthropic lenders. Kiva also gives no opportunity for lenders to earn additional income from their investment. So the lenders' participation solely depends on their philanthropic intents which are subject to occasional changes in personal interests and focuses.

2. **Dependency on local MFIs.** Since Kiva's operation depends on MFIs to act as local intermediaries with the borrowers, it cannot provide capital to population living in places with limited exposure to MFIs, such as Thailand.

3. **Potential misalignment of incentives.** Since Kiva operates as a non-profit, and partnering MFIs are operating as for-profit, misalignment of incentive could arise and subject Kiva to increased risk of fraud from MFIs.

4. **Lack of Human Capital Development program.** Kiva does not directly provide or promote

\textsuperscript{27}“Kiva Website
human capital development programs for their poor and low-income clients, who normally lack higher formal education and business knowledge. Such programs can potentially turn the platform’s borrowing clients into better credit risks, thus strengthening its client base and promoting its sustainability and growth in the longer run.

**Why Kiva has not penetrated Thai market?**

It is due mainly to the strategic lack of MFIs in Thailand to act as Kiva’s Field Partners. The only Kiva’s field partner in Thailand is the Yellow Leaf Hammocks, a mission-driven, market-based social enterprise dedicated to supporting high-wage weaving jobs for artisans in the hill tribe communities of rural northern Thailand.

**Zidisha’s Model:**

![Zidisha Social-lending system](image)

(Dashed arrow = flow of information, green arrow = flow of capital)

According to my research, Zidisha is the only pure peer-to-peer microfinance platform in existence. Lenders can directly send funds to entrepreneurs in developing countries, without passing through any financial or local, on-the-ground intermediaries. This alleviates a layer of the high-tier problem of trusts that exists at the intermediary level. The lenders also possess the power to decide whether or not loans will be disbursed and at what interest rate. Another main difference between Zidisha and Kiva is that the borrowers are responsible for posting the information online about their profiles and performance, as opposed to Kiva’s model in which
Field Partners are responsible for putting any information on the website.

Two main reasons which explain why Zidisha would probably be unable to serve the target population in Thailand well are: first, the allowable loan limits are too small (first time user is only allowed to request up to $100), and second, the requirement for low-income entrepreneurs to find regular access to the internet would probably not be applicable to Thai rural entrepreneurs, unless targeted efforts are directed at reaching out to this population group.
### Exhibit 1: Table Summary of Relevant Capital Sources

<table>
<thead>
<tr>
<th>Sources of Capital</th>
<th>Target population</th>
<th>Type of Financing</th>
<th>Loan Purpose</th>
<th>Capital Source</th>
<th>Why not accessible to our target population</th>
<th>Organization structure and Run by</th>
<th>Length of operation</th>
<th># pop served</th>
<th>Loan range</th>
<th>Criteria/Collateral needed?</th>
<th>required documents</th>
<th>Group lending feature</th>
<th>Interest %</th>
<th>Human capital dev.</th>
<th>Distribution</th>
<th>Disadvantages /modification needed/ needed feature</th>
<th>What should be retained (good features)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Bank</strong></td>
<td>People with good credit history or collateralizable assets</td>
<td>Debt (loans)</td>
<td>For-profit, privately owned</td>
<td>N/A</td>
<td>Collateral or established credit history needed</td>
<td>No. Although third-party guarantee is a possibility.</td>
<td>Use prime rate as the benchmark - average prime rate March 2013 = 9.63</td>
<td>No</td>
<td>Nation-wide branches</td>
<td>1. Relatively high administrative, transaction and fixed cost to transact a small loan 2. Offers only loan-based financing option to target population group (if at all) 3. Risk of providing capital to entrepreneur is concentrated</td>
<td>1. Large and sufficient pool of capital</td>
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<td><strong>BAAC</strong></td>
<td>Individual farmers who are usually land owners</td>
<td>Debt (loan)</td>
<td>State-enterprise</td>
<td>From 1966</td>
<td>Yes, in most cases still requires land-ownership or collateral (The mortgage of unencumbered immovable property which its appraised market value is not less than twice the amount of the loan), loan proposals to a BAAC credit officer, customers need to be genuine farmers with experience in the field with permanent residents</td>
<td>As three of four available securities options: 1. Farmer clients in the same group obligate themselves in joint liability agreement for their loan repayments. 2. At least 2 branch clients or any people approved by BAAC to stand sureties. 3. The pledge of government securities or on the security of deposits with BAAC Agricultural Development Projects</td>
<td>Approx 9% per annum (reasonably low)</td>
<td>No</td>
<td>Variety (but focused) loan types 2. Reasonable interest rate 3. Good reach to target population</td>
<td>1. Needs to expand focus to include population running small or high-end micro enterprises, but not necessarily a farmer 2. Makes it easier for customers to utilize non-collateral option for security purposes</td>
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<td><strong>Village Bank – Village and Urban Revolving Fund Program</strong></td>
<td><strong>Rural Thai villagers</strong></td>
<td><strong>Debt (Loan)</strong></td>
<td><strong>Working capital</strong></td>
<td><strong>Small deposits by member villagers are pooled together and subsequently re-lent to members</strong></td>
<td><strong>1. Limited Funding</strong></td>
<td><strong>2. Plagued by corruption – bank administrator sets rules and regulations that favor wealthier members and discriminate against poorer villagers</strong></td>
<td><strong>Government backed program</strong></td>
<td><strong>From 2001</strong></td>
<td><strong>63,000 community rotating credit associations with members in 80,000 villages as of 2012.</strong></td>
<td><strong>Interest rates for both deposits and loans are set by the village bank’s manager and his team, who are usually selected from wealthy and influential villagers</strong></td>
<td><strong>No</strong></td>
<td><strong>One bank in each of 80000 villages</strong></td>
<td><strong>1. Needs to standardize administration and reduces corruption in each local chapters</strong></td>
<td><strong>2. Expands capital source in addition to local member’s pooled deposits</strong></td>
<td><strong>1. Good outreach to villagers in rural areas</strong></td>
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<td><strong>Informal Money Lender</strong></td>
<td><strong>Low-income rural villagers</strong></td>
<td><strong>Debt (loans)</strong></td>
<td><strong>Varies</strong></td>
<td><strong>The money lender’s income</strong></td>
<td><strong>1. Extremely high interest rate. 2. No transparency</strong></td>
<td><strong>The lender, who receives principle and interests</strong></td>
<td><strong>N/A</strong></td>
<td><strong>Flexible</strong></td>
<td><strong>No</strong></td>
<td><strong>N/A</strong></td>
<td><strong>Extremely high</strong></td>
<td><strong>No</strong></td>
<td><strong>These money lenders are usually wealthy villagers</strong></td>
<td><strong>1. Astronomically high interest rate</strong></td>
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<td><strong>SME Bank</strong></td>
<td><strong>Small and medium entrepreneurs with good credit and business knowledge</strong></td>
<td><strong>Debt (loans), guarantees, venture capital, counseling, Letters of Guarantee and Joint Venture Services (equity capital)</strong></td>
<td><strong>Seed money and working capital for small and medium entrepreneurial ventures</strong></td>
<td><strong>1. Very competitive and requires moderate understanding of business</strong></td>
<td><strong>Established by Thai government</strong></td>
<td><strong>From 2002</strong></td>
<td><strong>Business Plan according to format given by the Bank.</strong></td>
<td><strong>No</strong></td>
<td><strong>Interest rates changed periodically according to market conditions and the BOT’s directive. As an example, the Minimum Lending Rate (MLR) in October 2011 was 7.25%, the Minimum Leasing Rate (MLSR) in May 2012 was 7.375%</strong></td>
<td><strong>No</strong></td>
<td><strong>Frequent training sessions for SMFs, aiming to educate them in many important aspects of running an effective SME business.</strong></td>
<td><strong>1. Needs to focus more on and offers opportunities for less knowledgeable group of people with less business training but with potential to run successful businesses</strong></td>
<td><strong>2. Offers a variety of capital products to tailor to different needs of entrepreneurs</strong></td>
<td><strong>3. Quality screening method with business plan submission</strong></td>
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<td><strong>Kiva</strong></td>
<td><strong>Low-income people around the world with access to MFIs</strong></td>
<td><strong>Debt (loans)</strong></td>
<td><strong>Start-ups, housing, green, transportation rural communities</strong></td>
<td><strong>Individual lenders around the world (Lenders can offer a Minimum of $25)</strong></td>
<td><strong>1. Lack of MFIs as field partners in Thailand</strong></td>
<td><strong>Non-profit intermediary between individual lenders and MFIs around the world. Lenders do not receive interest, only principle back</strong></td>
<td><strong>From 2005</strong></td>
<td><strong>715,000 borrowers ($280 Millions in loan)</strong></td>
<td><strong>Initial screening by field partners (with very limited local information)</strong></td>
<td><strong>Depends on Field partners/MFIs’ policy</strong></td>
<td><strong>No</strong></td>
<td><strong>Kiva’s 146 field partners in 60 countries, 680,000 individual lenders</strong></td>
<td><strong>1. Potential unsustainability of platform (due to lack of incentive for investors to screen borrower listing + no returns (actually negative returns) to lender</strong></td>
<td><strong>2. Dependency on local MFIs’ presence to reach target population</strong></td>
<td><strong>3. Potential misalignment of incentives between MFIs (for profit) and Kiva (non-profit)</strong></td>
<td><strong>4. Lack of human capital</strong></td>
<td><strong>1. Open platform – able to reach potential lenders in variety of locations, expand capital base</strong></td>
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<td>Prosper/Zopa</td>
<td>People at all income levels with credit history in the US or Europe</td>
<td>Debt (loans) - Fixed rate, fully amortizing unsecured loans</td>
<td>Debt Consolidation loan, home improvement loan, short-term &amp; bridge loan, auto loan, small business loan, baby &amp; adoption loan, engagement &amp; wedding loan, friends &amp; family loans, green loans, military loans</td>
<td>Individual Lenders (individual lenders invest as little as $25 in each loan listing they select.)</td>
<td>For-profit</td>
<td>From 2005/2006</td>
<td>Over 400,000 K in funded loans.</td>
<td>$2,000- $35,000. Loan (terms of 3 and 5 years, / £25,000 (up to 5 years)</td>
<td>No collateral required</td>
<td>No</td>
<td>Interest rate fixed according to Prosper Credit rating, loan term, economic and competitive environment</td>
<td>No</td>
<td>Online (1.6 million members) – US and Europe</td>
<td>1. Needs to find a way to deal with limited credit information of population in developing countries</td>
<td>Open platform</td>
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<td>GS Bank Micro-capital service</td>
<td>Unbanked low-income people, particularly the small entrepreneurs both in urban and rural areas</td>
<td>Newly offered microfinance products include insurance, savings, investment and credit options aimed at low-income people in rural areas.</td>
<td>Working capital</td>
<td>Deposits/savings from members</td>
<td>1. Requires established savings record 2. Loan amount still too small to make impact 3. Many villagers are still not informed of operation</td>
<td>State-owned under the supervision of the Ministry of Finance</td>
<td>From 2001</td>
<td>Up to 750 USD (first time), Up to 1250 (subsequent)</td>
<td>Require savings: The savings habits of the individual, reflected by both the deposited amount and the frequency of deposits are taken into account for eligibility for the microloans</td>
<td>1% per month rate</td>
<td>Yes</td>
<td>600 permanent branches, 21 mobile branches and 909 ATMs nationwide GSB also maintains 17 million accounts and serves 63,000 community rotating credit associations with members in 80,000 villages under the government-backed VF Scheme</td>
<td>1. Higher loan ceiling 2. Better reach/marketing – as currently service opens to existing members with established savings records</td>
<td>3. Offers training program</td>
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What is lacking in current peer-to-peer microfinance

A feature that is sorely lacking from existing peer-to-peer microfinance models is their ability and flexibility to offer alternate forms of financing and financial products. In particular, since all of the current platforms operate as debt-financing models, many of the unique beneficial characteristics of equity financing for the clients’ businesses, such as a lower and healthier debt-to-equity ratio, are sorely missing from the financing equation.

Development of Crowdfunding Platform for Low-Income Entrepreneur’s Ventures

Belleflamme, Lambert and Schwienbacher (2011)’s paper, suggests that existing crowdfunding platforms share some similarities with online lending markets, indicating the viability of crowdfunding platform for microcredit operation. It also touches on the legal limitation to crowdfunding’s offering of equity to the crowd, since the ability to make a general solicitation for equity offering is limited to publicly listed equity, according to US laws. Therefore, most existing initiatives do not offer shares, but provide other types of rewards, such as a product or membership. However, in the case of microfinance platform for low-income entrepreneurs, alternate forms of equity financing, or quasi-equity-financing schemes, must be utilized.

Belleflamme, Lambert and Schwienbacher (2011) state that crowdfunding can be used as a way for the producer (or platform’s clients) to gain a better knowledge of the preferences of its customer (or the investors). In the case of low-income entrepreneurs, the entrepreneurs will gain insights into the investors’ thoughts. For example, they can learn what types of entrepreneurial ventures investors are interested to invest their money in, or which types of

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28 Belleflamme, Lambert and Schwienbacher (2011)
ventures the investors believe to have potential for success. They would also be incentivized to provide as much details about their ventures on the platform’s website, in order to establish their credibility to the investors. The paper also shows the importance of identifying the right community and market for crowdfunding, as crowdfunding is only superior to traditional financing if the investing crowd enjoys additional private benefit from participating in the crowdfunding process. This signifies the potential benefit of modifying the donation-based or debt-based financing used in Kiva or current microfinance platform into one with alternate forms of equity financing, offering additional opportunities for financial reward to investors.

Belleflamme, Lambert and Schwienbacher (2011) categorizes crowdfunding into two main types, ex post facto crowdfunding, and ex ante crowdfunding. The type that the platform for low-income entrepreneur is related to is the ex ante crowdfunding, whereby crowdfunders have the opportunity to earn a monetary return on their contribution based on future sales or future success of the entrepreneurs’ venture. It also states that the extent to which the entrepreneur is able to identify and build a community that ultimately enjoys additional private benefits from participating in the crowdfunding is very important. This suggests the need to find financing schemes that provide benefits to investors who participate. Trust-building is also an essential ingredient for any successful crowdfunding initiatives.

In addition to providing technical and qualitative support for the development of a crowdfunding model targeted at low-income entrepreneurs, the paper also suggests several important characteristics which should be included in the platform. Most importantly, it proposes that the crowdfunders or the investors need to be able to enjoy some kind of private benefit from participating in the platform. Therefore, in the case of a platform for low-income entrepreneurs’ ventures, whereby products or membership cannot be used as rewards for the
investors, monetary returns to investors from the incorporation of a proper financing scheme should be emphasized. Investors should also be allowed and incentivized to participate actively in influencing the outcome of entrepreneur’s ventures. Venues for communication between the investors and entrepreneurs are to be set up, in order to facilitate knowledge transfers and trust-buildings.

Alternate Forms of Equity Financing

In the study by Voobraak (2011), crowdfunding is investigated as the process of an entrepreneur requesting and receiving money and other resources from many parties for financing a project, in exchange for a monetary return. Therefore, the paper directly explores the type of crowdfunding model for peer-to-peer investing or social investing. Voobraak analyzes two financing schemes which provide monetary returns to investors, namely profit-sharing model and revenue sharing model, which can be considered alternate forms of equity financing since they share properties of both equity and debt – similar to equity in the sense that they do provide upside benefits to the investors in the form of percentage of profits or revenues from the entrepreneurs’ venture, and similar to debt in the sense that entrepreneurs do not dilute the ownership of their business. These forms of financing are also not subject to legal constraint of listing the business in the equity market. Therefore, they exhibit many of the desirable traits of an equity financing scheme but are superior in the feasibility and practicality of their operation.

Voobraak also mentions the importance of equity-based financing, drawing from a research result of Berger and Udell (1998) which states that external private equity is very

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29Voobraak (2011)

20Berger and Udell (1998)
important, because a firm that receives this form of financing has an increased probability of success. This is caused by the fact that equity investors bring in knowledge because they are often successful entrepreneurs themselves or they add value by contributing their expertise and experience in a particular industry or geographical area.” This statement again confirms the importance of incorporating a financing scheme that shares properties of equity financing into the crowdfunding platform for low-income entrepreneurs. In addition Voorbraak explains how crowdfunding can help solve various problems caused by asymmetrical information inherent in traditional financing schemes. For example, not only does the investors’ risk in investing in the entrepreneurs’ ventures decrease due to the smaller amount of capital required in the investment, they also have the incentive to increase their involvement with the entrepreneurs’ ventures, since they can influence the amount of their returns which are tied to the success of the entrepreneurs’ ventures. The entrepreneurs also have the incentive to disclose more details of their business and be very transparent about their plans and activities, so as to attract potential investors.

4. **KEY TAKEAWAYS**

  ✷ *Key features to be incorporated into proposed platform*

1. **“Open” Online Financing Platform**

   Online financing platform empowers individual lenders/investors from all corners of the world, particularly from developed, capital-rich economies, to connect directly (peer-to-peer) with low-income entrepreneurial clients/borrowers in developing countries, which promotes a continuing supply of operating funds, and solves the problem of low-income entrepreneur’s insufficient access to capital due to a) limited amount of savings or deposits used as capital source (in the case of village banks), (b) unwillingness of formal financial institutions to offer capital/loan to a population group perceived as high financial risk, and (c) the relatively small
amount of capital/loan requested by small entrepreneurs, coupled with very limited credit information, rendering administering the loans too costly for formal commercial banks.

The online platform also eliminates financial and other forms of intermediaries from the equation, with resultant cost savings passed on to the clients. Similar organizations with open platforms, including Kiva, Zidisha, Prosper and Zopa, have successfully reached out to international lenders and investors.

In addition, by not requiring a single lending/investing person to be fully responsible for the whole loan amount requested by the entrepreneurs, potential financial and default risks are effectively distributed among several parties, making it more attractive for lenders/investors to participate in the clients’ business ventures.

2. Alternative Financing Schemes:

Most of the capital sources described above offer only debt-financing or loan services to their clients, as do most conventional microfinance programs/institutions. With expanded sources of loans for traditional microfinance services, low-income households would be saddled with increased interest expenses associated with increased indebtedness. An alternative financing scheme, including an equity-based or quasi-equity-based financing option, would help alleviate these debt-related problems by providing low-income households with financing options similar in nature to an equity capital, rather than a loan. This alternate financing model should also offer new opportunities for investors to earn additional returns on their investments, thus ensuring constant supply of capital sources.
**The Equity-based financing option** provides the entrepreneurs with interest-free capital and a better debt-to-equity ratio for their business ventures.

From my field investigation, I found that some entrepreneurial villagers would seriously consider having an investor to become a partner in their small entrepreneurial ventures (such as re-packaging their produce in order to extend their shelf-lives), because most importantly, they are exempted from paying the high cost of servicing their loans (interest payments) every month. Instead, investors would wait out until their ventures bear fruit in order to take their shares of the earnings. However, it is important to note that financial and business infrastructures in Thailand are still not ready for a full-scale equity-financing program for low-income small entrepreneurs.

**Quasi-equity-based financing**, such as revenue-sharing and profit-sharing schemes, offer the entrepreneurs some of the benefits of an equity-financing option, without requiring the entrepreneurs to register as a “company limited” and sell their shares to the investors.

**Profit-sharing scheme**

The Profit-sharing scheme works very much like an equity-based financing option in the senses that an entrepreneur does not have to deal with inflexible interest payment schedules, and can wait until his business turns a profit in order to start repaying his investors. However, from the investors’ standpoint, it is relatively difficult to monitor the profit figures (bottom-line figures) provided by the entrepreneur in his/her Pro Forma and actual Income Statements. Fraudulent practice on the part of the entrepreneurs can be difficult to deal with, and a strong sense of trust is necessary for such an arrangement to work.

**Revenue-sharing scheme**

Revenue-sharing, on the other hand, offers an entrepreneur a little less of the benefits of an equity-based financing option. The entrepreneur still has to pay periodical revenue-sharing
fees, similar to interest payments, to his/her investors. However, he pays only a percentage of his revenue streams (say 3%). If he receives less from his business in a period, he pays less in that period. Unlike in debt-financing, he does not have to pay the fixed and inflexible amount of interest payment each period.

From the investors’ standpoint, it is also easier to monitor the client’s revenue (top-line) figures than profit (bottom-line) figures.

In addition, since the investors’ financial returns or payoffs are proportional to the revenue streams generated by the clients’ businesses, the Platform’s investors will exhibit more carefulness in selecting the ventures to invest in, thus giving the platform an added insurance for success.

In many senses, a revenue-sharing scheme offers the most practicable and appropriate financing option for the current Thai financial market condition. An important consideration is concerned with governmental competition and regulatory restrictions for private-sector MFIs. The Thai government is, in effect, the largest microfinance operator in the country, providing microfinance services through government-subsidized special financial institutions (SFIs). Currently, there is also a strict control on the issuance of license to operate non-banking lending institutions, which imposes a minimum registered capital requirement of BHT 50 million for such an institution, and a restricting 15% interest rate ceiling on loans provided by such an MFI. In order to avoid direct competition with the government-subsidized MFIs and circumvent the restricting regulatory environment imposed on non-banking lending institutions, an MFI which offers non-debt-based financing instruments, such as the revenue-sharing scheme, would be the most appropriate and would offer the best potential to succeed in the private microfinance sector of Thailand.
3. **Human Capital Development Program & Investor-Entrepreneur Relationship**

Another main reason that the villagers would prefer an investor to a lender is that the investor might also be able to help them in other ways to achieve successful outcomes in their businesses, such as in providing technical or business advice. Currently, only two capital sources in Thailand officially provide human capital development programs, namely GSB and SME banks, but these programs are simply general business training sessions arranged by the Banks for their borrowing clients, which are arguably not as valuable and targeted as the typical mentoring advice and assistance available in an Investor-Entrepreneur relationship.

The potential mentoring relationship and business advisory and training sessions the platform offers could empower them to become better financial risks and join the rank of “preferred customers” for most formal capital sources in the future.

Therefore, the desired platform should also provide a special venue to encourage and facilitate mentoring relationship between the two groups. This venue of communication could also serve as one layer of armor against “moral hazard.” Because the investor’s financial return depends on the entrepreneurs’ success, the investors will also be incentivized to regularly monitor the entrepreneur’s progress and use of funds through the communication channels provided.

4. **Define target customers as low-income entrepreneurs, operating micro- to small-businesses, in both rural and urban areas of Thailand**

Current capital sources in Thailand which partially offer microfinance services to target population are Village Banks, Kiva and GSB. However, it is evident that the target population is not being sufficiently served by these organizations, because of a variety of reasons. For the
village bank, the reason is the limited amount of capital. In Kiva’s case, there are essentially no private-sector MFIs to service the local Thai population. And for the GSB, it is due to very small loan cap which renders the tiny amount of loans insignificant to our target population.

Therefore, there are true potentials for organizations and platforms that offer start-up or working capitals for small and micro business ventures in Thailand.

5. **High enough loan cap amount**

Low loan ceiling is a main problem discouraging low-income entrepreneurs to participate in traditional MFIs operated by the government’s special financial institutions (SFIs) such as the GSB and village banks. Therefore, higher loan ceiling or higher capital limits should be allowed in order to ensure a genuine impact on the target population.

6. **Central administration to prevent corruption**

One of the main problems inherent in the Village Banks and microfinance trials in Thailand is corruption or preferential treatment towards wealthier groups of villagers or customers, which effectively excludes many of the poorer counterparts from receiving equitable service. In the case where there are local chapters or field partners involved in the platform’s operation, close inspection or monitoring from the central management body needs to be imposed.

7. **Inherent Screening mechanism**

In rural Thailand, as in many other developing countries, there is very limited or non-existing credit information on the low-income population. In the case of Kiva, there are practically no MFIs to act as Field Partners in Thailand in order to perform due diligence on the borrowers’
business ventures. Therefore, screening mechanisms or strong incentive for investors to use their discretion and business knowledge to screen listings of entrepreneurs and their businesses are vital in maintaining sustainability and quality of platform, as well as in alleviating adverse selection.

8. **Communication infrastructures, especially Internet and Mobile Devices penetration, as outreach towards rural target population**

As an Internet-based peer-to-peer platform, it is important to partner or connect local organizations, which are capable of providing access to the Internet to entrepreneurs. In order to minimize costs in setting up the communication infrastructure, existing organizations that have extensive and consistent Internet reach into areas where the target population resides are potential partners.

9. **Returns to investors**

Since sufficient capital base is necessary to sustain the platform’s operation, appropriate incentives to draw the participation of investors are essential in maintaining a sustainable platform. Even though potential investors are most likely those with philanthropic intention, it is necessary to offer competitive or semi-competitive investment-return opportunities for the platform’s other investors as well, (as opposed to zero or negative investment returns in the case of Kiva investors), especially since the platform offers relatively new financing option. This financial reward opportunity for investors could also serve as an incentive cushion for economic downturn.
Another reason for offering competitive investment returns is associated with the screening feature of the platform. With a financing option that allows for the investor’s payoff or returns to be linked with the success of the entrepreneur’s business, the investors will be more prudent in choosing entrepreneurs from the listings, and they would also be incentivized to provide valuable non-monetary assistance or mentorship to entrepreneurs if appropriate venues are made possible.

10. Repeated Interaction

It is imperative to incentivize the customer to re-enter the platform for further services or financing opportunities, by providing them with larger benefits in the future. This also helps aggregate customer’s credit information, which would become more complete and better indicative of customer’s dependability over time. By allowing bigger benefits to the entrepreneurs were they to return to the platform, strategic default by which the clients run away with the money received could also be prevented. It also ensures that the entrepreneur’s positive or negative behavior in repaying investment amount would have an impact on receiving future service.

- Advantages of proposed model over existing capital sources

Banks

Our platform can offer financing services to our target population (low-income entrepreneurs operating small or high-end of micro businesses in rural and urban area of Thailand) better than commercial banks can because
1. With the same level of information about potential customers and their credit history (which is very limited in developing countries), a commercial bank retains higher risk in providing services to these high-risk entrepreneurs than individual investors registered in our platform. This is because the commercial bank’s organizational structure and loan-based financing operation assumes the bank to be sole capital provider (despite the fact that the capital is accumulated from different parties or bank’s customer’s deposit) with full responsibility for the loan. On the other hand, on our platform, the risk from each entrepreneurial venture is distributed among the multiple investors who help fund the amount. This flexibility that allows each investor to invest starting from very small amount up to any amount according to his/her risk propensity substantially reduces the perceived risk from each investor’s point of view.

Therefore, our platform has the capacity to attract participating investors to contribute to our capital base, while receiving lower interest rate or % returns relative to a commercial bank. Starting from 2011, even though the Bank of Thailand allowed commercial banks to engage in microfinance without collateral requirement, very few banks actually expanded into the sector due to the interest rate cap of 28%. This is evidence of how commercial bank, as the sole capital provider, perceives the provision of capital to low-income client with very limited credit history to be too risky to take part in. On the other hand, in the case of Prosper, even with a borrower with the lowest credit ranking (e.g. rated E), the calculated interest rate is approximately 28%, and these people do not have as much difficulty getting loans relative to traditional microfinance customers. This is because the risk associated with the borrower is distributed among multiple investors who contribute partially to the whole loan amount.
2. In terms of cost, even in the case where market is segmented using the same criteria that commercial banks utilize, the open platform (online, peer-to-peer) can get a convenient and attractive rates (depends on financing scheme, e.g. interest rate for loans, % revenue for revenue-sharing scheme) for both entrepreneurs and investors, while simultaneously making the business model sustainable. This is because an open platform that connects investors to entrepreneurs eliminates the needs for financial intermediaries which incur substantial fixed cost and administrative cost in transacting the service. The fees that the platform collects from both entrepreneurs and investors could be much lower than the spread commercial bank has between the saving and lending rate, because the lower amount of operating cost incurred.

3. Investors involved in our platform are partially philanthropic [See Section V for more details], as opposed to the commercial banks which are purely profit-oriented. Therefore, platform’s investors are more willing to provide capital to the low-income entrepreneurs at lower required interest rate – rate which is too low to justify the risk and the transaction cost for non-philanthropic party.

**BAAC**

Our platform serves more directly the target population, while BAAC aims to serve only customers who are farmers. Even though our target population includes rural farmers, our platform aims to provide funding to a whole range of small and upper-tier micro entrepreneurs, both farmers and non-farmers.
**Village Banks**

The open platform feature will ensure larger capital base from potential investors around the world, while village banks face limitation of capital that draws from local member’s small base of deposits. Although the platform might require local chapters, close monitoring of each chapter’s administration will be performed to ensure equitable and standardized service to all, which would solve the problem of corruption and preferential treatment that occurs in village banks.

**SME Bank**

Our platform would provide necessary training and support appropriate to the level of our target population’s business knowledge, which is potentially at a much lower level than most applicants and customers of the SME bank. The platform would also limit the eligibility of potential customers to include only those truly in need of capital source, in order to reduce the competition intensity that exists in the SME bank environment and which precludes our target population from their service.

**GSB**

Our platform allows for a more reasonable level of loan/capital cap, relative to that of the GSB, to ensure that the service truly makes an impact on our target population. Also, our platform does not limit clients to be existing members of any banks or owns any specific bank accounts. Therefore, our platform would ensure that its services cover the whole spectrum of our target population.
**Kiva**

Our open platform is for-profit and offers potential investment returns for investors, hence it is structurally more sustainable than Kiva whose lenders are philanthropists and thus more vulnerable as a source of capital, especially in times of economic uncertainty. Our platform’s inherent customer listing screening mechanism also helps maintain platform’s quality and funding success. Our platform would also rely on existing Internet and communication infrastructures in Thailand to reach out to the target population, so it does not depend on limited MFIs in the countries for its operation. By providing appropriate venues for communication between investors and entrepreneurs, there are opportunities for knowledge sharing and mentoring relationships which are not present in Kiva and which could potentially transform the high-risk entrepreneur into a better financial risk, opening up the entrepreneur’s opportunity to tap into expanded capital source.

**Prosper/Zopa**

Our platform is designed to deal with limited credit information of potential customers, as opposed to Prosper/Zopa which operates in developed countries where recorded customer credit histories are generally available. Our platform would deal with the inherent moral hazard problem by instituting venue for investor-entrepreneur monitoring and entrepreneur-grouping feature. It would also strive to overcome the adverse selection problem by incentivizing investors to utilize their knowledge, expertise and discretion in prudently selecting the entrepreneurial ventures in which to invest their money.
**Zidisha**

Our platform offers alternative financing option, which gives more benefit to low-income entrepreneurs and provides investors the opportunity to earn additional financial reward. With the investor’s financial return directly linked to entrepreneur’s success, mechanism to alleviate adverse selection and moral hazard is inherently embedded in the system.
SECTION III: SASOM BUSINESS PLAN

OPERATIONAL MODEL

1. SASOM MICRO-CAPITAL PLATFORM

Sasom is a private-sector social enterprise, providing Internet-based platform for domestic and international investors to connect directly (peer-to-peer) with low-income micro-entrepreneurs in Thailand, who are in need of small-sized investment capitals for their businesses and ventures. Sasom facilitates direct transfers of capital from the Investors to the Clients, in the form of revenue-sharing investments.

Objective

In the initial phase, Sasom’s primary objective is to help low-income entrepreneurs in rural and urban areas of Thailand, who have limited access to capital and financial services of commercial banks and other governmental financial institutions, in acquiring small-sized capital for their financial needs. In later stages, Sasom plans to scale up and expand its operation to other Southeast Asian countries with similar socio-economic characteristics. Sasom aspires to create positive social impact and help alleviate poverty in Thailand and developing countries in which it operates. Although Sasom operates as a for-profit enterprise, it does not aim to maximize its profit. It aims instead to generate sufficient profit to sustain the operation and growth of its social development goals and activities.
Legal Entity

Sasom operates as a for-profit social-enterprise, registering as a “Company Limited” under the Law of the Kingdom of Thailand. Because the company is not offering non-banking lending services, it does not require a special operating license from the Ministry of Finance (MOF), and it is not required to invest a minimum paid-up equity capital of THB 50 million (USD 1.7 million).

Operational Platform: peer-to-peer

Investment capital is still a scarce commodity for several sectors of the Thai economy, including the low-income micro- and small-entrepreneur community. An Internet-based P2P platform would empower individual Investors from all corners of the world to invest their money in the business ventures of this group of underprivileged population, thus alleviating the problem of “capital scarcity” prevalent in a developing country such as Thailand.

A truly effective P2P microfinance platform would also eliminate most costly financial and other intermediaries from the equation, and pass on the resultant cost savings to the target clientele. Striving to operate as a true P2P platform, Sasom decides to operate without formal partnership with any local for-profit intermediaries (such as MFIs who act as Field Partners for Kiva). However, the company seeks the cooperation of non-profit social-minded local institutions and volunteers, such as universities and vocational schools, in providing relevant assistance to the low-income entrepreneurial clients.

Target Population

As mentioned above, our target clients are low-income small entrepreneurs in Thailand, earning less than $4,400 per year. This statistic is based on a minimum wage in Thailand of 300 BHT per day, and is set using the rule that the platform accepts clients who earn up to a
maximum of 500 BHT ($17 per day). However, the platform expects most of the clients to earn between $3-$10 per day. From a socio-economic standpoint, this population group warrants special attention because of its potential contribution for the alleviation of poverty and income inequality in the country. Given the opportunity, many of these small entrepreneurs could develop and grow into potent workforces capable of driving the country’s GDP growth, and creating more jobs for the poor.

A large portion of the target population and clients are those working in the agricultural sector in the rural areas of Thailand. Although 40% of Thailand’s 40 million workforces work in the agricultural sector, they produce only 13% of the country’s GDP (in 2012). While the workers in the manufacturing and service sectors, the domain of entrepreneurial endeavors, provide over 80% of the country’s GDP.

The target population is assumed to possess no English-language skill, but is expected to have a good command of the local language (Thai) and possess a good potential to learn, if not already acquire, the necessary rudimentary computer skill needed to join the platform, with appropriate assistance and training provided by the platform. The target population is also expected to have a reasonably easy access to the internet, such as at home, village centers or via local post-offices, where they are required to visit every month for money transfer and interaction with the investors. Those who live relatively far from internet centers, although are also required to visit the internet center for important transaction processes, are required to own a mobile phone to be used as the main communication venue to maintain more frequent interactions with the platform and investors.
Financial Products

The primary financial product of Sasom Micro-Capital is the Revenue-Sharing Contract. In essence, this is an investment contract between the Client, who owns a business, and one or several Investors who provide a certain amount of investment fund (seed or working capital) to the Client for a certain period of time, in exchange for fees, based on mutually agreed percentages of the Client’s Revenues during the specified period.

Benefits of Revenue-Sharing Services

For a Client, an advantage of such a financing scheme, in comparison to the debt-based instrument (loan) offered by most MFIs, is the ability to pay a fee which is proportional to his business financial success or the revenues he receives. If he receives less in a period, he pays less. His cash flow management will be easier, and safer, than when he has to deal with the fixed, inflexible amount of monthly interest payments in the case of a loan.

For an Investor, because the fees he receives are proportional to the revenues generated by the Client’s business, he stands a chance to earn more financial rewards if his Client’s business performs better than expected and earns more revenues. For a loan, the interest income is a fixed amount, regardless of how the Borrower’s business is doing.

Why is Sasom effective and sustainable in alleviating poverty in Thailand and Southeast Asian countries with similar socio-economic characteristics

First, Sasom’s legal entity is appropriate for operating in the face of strict Thai regulatory environment for non-banking lending service, and serving as the sorely needed private sector capital provider in Thailand where Sasom’s target population resides. It caters for the funding need of worthy and able low-income entrepreneurs, the population group who are particularly insufficiently served by existing capital sources in the country, including the formal financial
sector and microfinance services, for a variety of reasons\textsuperscript{31}, such as unreasonably high interest rate (27\% or more) and too low a loan ceiling, which are unrelated to their capability to carry out successful business and rise out of poverty. This insufficient access to capital source prevents these low-income entrepreneurs from growing their earnings enough to improve their families’ standard of living. By investing through the Sasom platform, the investors not only correctly target their funds to fight poverty in the population group and community which create the most impact, but also directly support the entrepreneur’s family and community.

Second, Sasom is the only peer-to-peer social investment platform that offers an innovative financial product, the revenue-sharing model, offering additional benefits for the low-income entrepreneurs\textsuperscript{32}, including more manageable cash flow, thus increasing the entrepreneur’s probability for success and creating more profound impact to the target population. The investors are also given the opportunity to earn more financial rewards, as opposed to other peer-to-peer microfinance platforms, which only offer debt-financing products. The investors possess the opportunity to balance their quests for financial rewards with philanthropic motivation, and settle for an appropriate revenue-sharing rate which satisfies both personal aspirations, and which benefits appropriate entrepreneurs. The investors can be assured that the integrity and efficiency in the operation of this novel financial service will not be compromised, as appropriate rules and regulations are put in place to prevent misconducts and ensure operational success. [See the following sections for more details]

Third, unlike other internet microfinance websites that simply allow web users to fund existing microfinance institutions and programs, Sasom operates as a true peer-to-peer investment platform that offers the investors the opportunity to interact directly with the

\textsuperscript{31} See Section II for detailed information
\textsuperscript{32} See Section II and IV for detailed information
entrepreneurs, effectively transferring the power to influence the success of the entrepreneur’s venture into the investors’ hand. Investors also have the opportunity to post questions, comments, advice and other types of non-monetary support directly to the entrepreneurs, and learn about the social impact that their investments are making.

With the direct peer-to-peer operating platform, Sasom drastically reduces the transaction costs usually incurred in traditional MFIs and other capital-providing sources in the region. Compared with MFI’s average financing cost, which translates into at least 27% or more interest rate charged to entrepreneurs, the direct peer-to-peer model reduces the financial cost of investment to a fraction of this. According to statistics by Zidisha, which operates as a direct peer-to-peer microfinance platform offering only debt-based product, the reduction in operating costs enable entrepreneurs to pay at least 20% less in fees through Zidisha’s services. The average interest rates paid by such platform’s clients are between 7%-13%. As Sasom offers revenue-sharing product which requires minimally higher fees to maintain platform’s integrity and sustainability, we aim to provide participating entrepreneurs with revenue-sharing fees equivalent to interest rates of 10-20%. [See section 5 for more information on equivalent interest rate]

33 “Zidisha’s website”
2. HOW THE SYSTEM WORKS

❖ System Description in a Nut-Shell

**Step 1: Registration** Both the Investors and the Clients are required to register online with Sasom.com, providing information as required in the Platform’s registration forms. For clients, the required information includes background information, endorsement of characters, business plan, key information regarding funding amount requested. A one-time registration fee will be applied to a participating entrepreneur when his first investment funding is acquired. After the investor or the entrepreneur is approved membership of the platform, an individual account will be opened for each member.

**Step 2: An Investors make Decision and Bids for investment** The registered Investor will browse the list of Clients and their posted projects, and select the ones he is interested to invest his money in, by indicating the amount (all or part of investment request) he wishes to bid and proposing his revenue-sharing rate. He may choose to invest his money in several projects simultaneously.

**Step 3: Entrepreneurs Accept Bids** When the entrepreneur’s request for investment is fully funded, the entrepreneur can choose to accept the bids right away and begin the transactions, or he can choose to wait until the end of the fundraising period to open for the possibility of more investors bidding down the revenue-sharing rate.

**Step 4: Signing of Revenue-Sharing contracts.** When a Client’s request for investment is successfully funded and concluded, marked by the entrepreneur’s acceptance of the bid, then a revenue-sharing contract between the Client and each participating Investor will have to be signed by both parties.
Step 5: Funds Transfer and Disbursement. After the contract is signed, Sasom will notify all participating Investors to transfer money to the Client’s account.

Step 6: Payments of Revenue-Sharing Fees and Repayments of Investment Funds. After receiving money from the Investors, the Client is required to start repaying the money he has received from the Investors, including the revenue-sharing fees, according to a mutually agreed schedule. Normally, a grace period (say, one month) will be granted to the Client if he requests it.

Step 7: Communication between Investors and Clients. The entrepreneurs are required to regularly post the progress of their businesses on the Client Profile Pages of the Sasom Website, and investors are encouraged stay in touch to learn about the impact of the loan.
Exhibit 2:

(A) Small Entrepreneurial Client

(A1) Register with the Platform

(A2) Prepare Project Business Plan (according to given format)

(A3) Submit Business Plan, including Financing Requirement, and Post Progress on the Platform

(A4) Sign legal contracts with Investors thru the Platform

(A5) Receive funds (and mentoring advice) from the Investor thru the Platform

(A6) Pay revenue-sharing fees to Investors according to contract schedule

(A7) Repay full amount of Investment to Investor at the end of financing period

(B) Volunteering Client Relation Manager

(B1) Help Client with preparation of Business Plan and posting on the Platform

(B2) Onsite Visit and Impact Assessment of Clients’ Operations

(C) Organization

(C1) Post Clients’ Business Projects on the Platform (Translation Services)

(C2) Prepare legal Contracts for Investor and Entrepreneur (Translation)

(C3) Post Clients’ Progress on Profile Pages Post Investors’ comments, questions, advice

(C4) Prepare legal Contracts for Investor and Entrepreneur (Translation)

(D) Investor

(D1) Register with the Platform

(D2) Browse Projects posted on the Platform

(D3) Decide which project to invest in, sign contract with Entrepreneur, and transfer funds to the Client

(D4) Optional: Provide mentorship, business or technical advice to Entrepreneur thru Posting on the Platform

(D5) Receive Revenue-Sharing payment fees from Client according to schedule

(D6) Receive full repayment of invested funds from Entrepreneur at the end of term
3. THE INVESTORS

❖ Incentives for Investment

Financial

- Returns on investment
- Higher rate of returns on their savings
- Diversification of investment portfolio
  - Seen as riskier than a savings account, but not as risky as the stock market.

Philanthropy

- Strategic philanthropist – philanthropy found in for-profit social-investment schemes
  - where people’s main objective is to positively impact poor people’s lives through investment funding, while trying to extract some form of modest return as well.
  - Rather than donating money, they believe in the free market and the fact that an interventionist approach would yield better results in the long run.

- Impact-witnessing Experience – rather than donating to an organization without knowing where their funds exactly went to, investors want to be able to influence particular individual and hear directly from the entrepreneurs about the impact they have caused.

Community

- Sense of community to engage in the social-investing movement that possible peers are also active on.

Interest for International Cause

- Many lenders have never traveled outside the United States or Europe, and are curious to learn about life in other countries. Investing through Sasom gives them the chance to get
to know a small business owner on the other side of the world, and to learn about daily life and culture in that country.

- **Exhibit 3: Investor’s application**

<table>
<thead>
<tr>
<th>Registration Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Member Type:</strong> Investor</td>
</tr>
<tr>
<td>Create Username</td>
</tr>
<tr>
<td><em>(Your username will be displayed to the public)</em></td>
</tr>
<tr>
<td>Password</td>
</tr>
<tr>
<td><strong>Confirm Password</strong></td>
</tr>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td><em>(This will not be visible to the public)</em></td>
</tr>
<tr>
<td><strong>Last Name</strong></td>
</tr>
<tr>
<td><em>(This will not be visible to the public)</em></td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
</tr>
<tr>
<td><em>(Sasom will use this address to send important communication regarding your investment transactions)</em></td>
</tr>
<tr>
<td><strong>Address of Residence</strong></td>
</tr>
<tr>
<td><strong>Area of business or technical expertise</strong></td>
</tr>
<tr>
<td><em>(Optional: if completed this will be used as another sorting option to match with entrepreneurs)</em></td>
</tr>
<tr>
<td><strong>Photo</strong> <em>(Optional: if completed this will be displayed in your public profile)</em></td>
</tr>
<tr>
<td><strong>Account Preferences</strong></td>
</tr>
<tr>
<td>Would you like your investment bids and funded investment to be displayed on your public profile?</td>
</tr>
<tr>
<td>Would you like to be notified by email when a repayment is credited to your account?</td>
</tr>
<tr>
<td>Would you like to be notified by email when a comment is posted on one of your investments?</td>
</tr>
<tr>
<td>Would you like to be notified when an entrepreneur you have funded in the past posts a new investment application?</td>
</tr>
<tr>
<td>Would you like to subscribe to our monthly newsletter?</td>
</tr>
</tbody>
</table>
❖ **Role of investors on the platform (Step 1,2,4,5,7)**

- Sign up online
- Create an account
- Browse listing of Clients’ Business Plans
- Choose one or more projects to invest in
- Bid for portion of the investment
- Propose new revenue-sharing rate
- If Client accepts bid, then transact the deal
- Keep in touch with entrepreneurs

❖ **Registration (STEP 1)**

For an Investor, registration is free. The investor will be required to complete the registration form as shown in the exhibit 3. Once the investor is accepted as a member of Sasom, an account will be opened for each investor.

❖ **Bidding (STEP 2)**

The registered Investor will browse the list of Clients and their projects, then select and bid for the ones he is interested to invest his money in. He may choose to invest his money in several projects simultaneously.

**Investment amount:** An Investor can choose to invest for a minimum of USD 10 up to the amount requested by the entrepreneurial Client.

**Multiple Investors for a single Project:** The platform allows multiple Investors to invest in the same Client’s business venture.
Bidding Process: The Investor can offer his “bid” for a portion or all of a Client’s total investment request, stating with the amount he wants to invest and the revenue-sharing rate he wants, which must not exceed the maximum rate set by the Client. The Platform will then award the investment contract to the Investor who offers the lowest revenue-sharing rate, and scout the list for the next lowest bidder (in a reverse auction process), and so on, until the total amount of money requested by the Client is successfully funded.

Multiple investors and total bids exceed requested amount In the case where the total amount of bids received exceeds the amount requested by the applicant, then only the bids with the lowest offered revenue-sharing rates are retained.

Revenue-Sharing contracts (STEP 4)

When a Client’s request for investment is successfully funded and concluded, marked by the entrepreneur’s acceptance of the bid, then a revenue-sharing contract between the Client and each participating Investor will have to be signed by both parties. The contract will spell out important points of agreement, including the amount of investment, the duration of the investment, the revenue-sharing rate, the repayment schedule, the grace period, as well as other important legal points. The contract will follow the international standard for legal documents and will be written according to international laws, with the provision of arbitrage in case of legal conflict.

Contract Service Fee: The Platform will arrange for the preparation of the contract, in both English and Thai languages. And it will facilitate the execution of online signatures for both the Client and the Investors. The Platform will charge a servicing fee of USD 20 from both the Client and the Investor for the contract signing services provided.
Funds Transfer and Disbursement (STEP 5)

After the contract is signed, Sasom will notify all participating Investors to transfer money to the Client’s account, either through the service of Pay Pal or through international wire transfers.

Transfer Fee: Investors will be responsible for the transfer fees.

Communication between Investors and Clients (STEP 7)

Investors are encouraged to stay in touch to learn about the impact of their investments, by posting inquiries about the entrepreneur’s business progress and use of funds through the comment and attachment forum and venue on the entrepreneur’s profile page. They can also post advice or non-monetary assistance to positively influence business or technical practice of the entrepreneurs.

Share of Investment fund repayments

At the end of the investment/funding period, the Client is obligated to repay corresponding part of the investment principal to each of the Investors who contribute funds to his business. The proportion of repayment due to each contributing Investor is determined from the bidding process.

Anonymity of Investor’s Profile and information

Only the investor’s Sasom username, city and country, and photo if the investor uploads one will be displayed on our website, and no information not publicly displayed will be communicated to entrepreneurs.
Tax treatment of investments

Sasom platform does not recommend treating investment amounts as tax-deductible donations because they may be returned to investors if they choose to request withdrawal of the repaid investment funds from your investor account.

It is the responsibility of website users to report and pay any applicable taxes on any cash payouts received from Sasom.

Fees

The Platform would collect fund administration fees from the Investors, as compensation for the funding services and administration provided by the Platform. But the fees will be collected only when the investment fund is repaid by the Client. The FA rate, percentage of the funding amount, for the Investors is expected to range from 2.5% to 5% of the funding amount, and the Investor should take this into account when calculating the return on his investment.

4. ENTREPRENEURS

Entrepreneur’s incentives for joining the platform

Access to finance

Validation of business ideas – indicated by investor’s interest in funding the project

Lower financing cost

Non-monetary assistance and mentoring support from investors

Role of entrepreneurs on the platform (Step 1,3,4,5,6,7)

Apply online and submit required documents to be considered registered entrepreneurs

If approved, a profile will be added to the platform
complete training, submit business plan and investment request

Investment request are visible to investors

Notified when investment amount is fully bid by investors

If the fundraising period is not over yet, decide whether to start transacting or wait for possibility of further bids

If fundraising period is over and investment amount is fully funded, or entrepreneurs accept the bids, sign contract

Receive fund from investors and use it to run business

Update monthly progress of business on the client’s profile

Answer investors’ inquiry and interact with investors

Report monthly revenue figures and repay monthly revenue-sharing installments

Return the investment amount by the agreed duration of investment

Can choose to upload the investment amount to their account on platform to earn 3-4% of savings account rate, or repay the investment amount to investors early
Exhibit 4: Entrepreneur’s application

Client’s Application

Applicants may request another person to assist in completing this form, as long as the applicant participates closely in the application process and has a good understanding of how Sasom works.

If you are posting this application on behalf of another person, we request that this be disclosed to investors so they may know with whom they are communicating during the investment period. Your response to this question will not have any effect on the approval of this application.

Are you completing this form for yourself, or on behalf of another person?

Name of person completing this form
Telephone number of person completing this form
Email address of person completing this form (We will send a copy of all of this applicant's account status notifications to this address)
Village or town of residence of person completing this form

In order to join Sasom, you must be able to answer "yes" to the following questions:

Do you currently own or run an entrepreneurial venture?
Will you commit to sharing updates with investors by posting comments in your profile page at least once per month while you are repaying the investments?
Do you have annual income less than $4,400

Create Username (Your username will be displayed to the public)
Password
Confirm Password
First Name (This will not be visible to the public)
Last Name (This will not be visible to the public)
Email Address (Sasom will use this address to send important communication regarding your investment transactions)
Address of Residence
National ID Number
Upload your National ID Card
Mobile Phone Number
Please enter the name and telephone number of three family members whom we may contact as a reference
Please enter the name and telephone number of three neighbors whom we may contact as a reference:
Educational Level
About Yourself (You may choose to describe your family, area where you live, occupation, why you started a business, and any other details that may interest Sasominvestors in other countries.)
Please tell us about your business
Please upload a completed copy of the Recommendation Form. In order to be eligible, the Recommendation Form must meet these criteria:

1. It must be completed by the leader of a school, a religious institution, social organization or a respectable government official within your community.
2. If the community leader who signs the form has recommended other members to Sasom, those members must all be current with their loan repayment commitments in order for the community leader’s recommendation to be accepted.
3. Please enter the name of the official who signed the Recommendation Form:

Please enter the telephone number of the official who signed the Recommendation Form:
Information on Entrepreneur’s Profile page (Visible to Registered Investors)

- Username
- Location
- On-time Repayment Rate
- Performance indications (see section 7)
- Amount requested
- Maximum revenue-sharing rate
- Total bids
- Still needed
- Date the bidding closes
- The entrepreneur’s story
- The entrepreneur’s description on “About my Business”
- Business plan
- Repayment duration
- Grace period
- Transaction Fee
- Other fees applied
- Purpose of funding requests
- Details on current funding bids
- Comments and conversations between investors and entrepreneurs
**Requirements for the entrepreneurs in joining Sasom (STEP 1)**

Applicants to join Sasom platform would require the following:

**Background Information:** Applicants to join Sasom provide personal data, including copies of national identity cards, home location, and the contacts of family members and neighbors.

**Endorsement of Client’s characters:** The Client is also required to obtain an endorsement for his characters in the form of two non-binding recommendation letters from well-respected community leaders, such as a village-head, school principal, leader of a place of worship or a respectable government official, who agrees to mediate in the event of difficulty recovering the repayment of investment amount.

**Eligibility:**

1. Applicants must have an active business or employment with sufficient income to ensure repayment of the revenue-sharing fees in monthly installments.

2. Applicants must, at the time of application, earn an income of no more than USD 4,400 per year.

3. Applicants must have access to the internet platform on a frequent basis, and own a mobile device

4. Be able and committed to posting frequent updates regarding use of funding capital and progress of the business on the Sasom website.

**Business Plan:** prepared according to the format given by the company on the website. The Business Plan is an important and mandatory document, because it provides the information necessary for the Investors to make their investment decisions. The Business Plan also provides the estimated Revenues generated by the Client’s business operation, which are used as the basis for the calculation of the revenue-sharing fees and rates. [more information on section 5 and 6]
The information required in the Business Plan includes:

1. **Management Information**: What is the entrepreneur’s education, working experience?

2. **Business Information**: Description of his business and its potential, as well as information about the industry in which his business operates.

3. **Product or Service Information**: Describe the products or services offered by his business.

4. **Market Information**: Customer profiles and Size of potential market.

5. **Financial Information**: Revenue and Cost Structure, Financial assumptions, Estimated revenues, expenses, and profits for the next 24 months, for example.

6. **Financial requirements**: How much money is needed? Funding duration? What is the maximum rate that he is willing to pay as his revenue-sharing fees?

7. **Sales and Marketing Plan**: How to sell the products/services? How to approach customers?

**Registration Fees**: For the Client, a one-time registration fee of USD 30 will be required. However, the fee will be collected only when the Client has successfully acquired investment funding.

**Key Information**: The Client also has to provide key information including

- The amount of financing required,
- The max revenue-sharing rate he is willing to pay,
- The duration of the investment, and
- The grace period he requests.

For example: a Client who operates a small mobile food vendor business may request a working capital of USD 3,000 for a period of 12 months. In exchange, he is willing to offer the Investors a maximum fee equal to 5% of his actual revenues during the period. According to financial projections given in his Business Plan, the revenues generated during the period are expected to
be USD 20,000. He agrees to repay the money he receives from the Investors, including the revenue-sharing fees, in monthly (or quarterly) installments, starting after a grace period of 2 months. [The details of the exact amount of repayment installments can be found in section 5 and 6]

Translation Service: If the Client’s Business Plan and other information are not written in English, the Platform will translate them into English, for the benefits of the international Investors. A translation fee will be charged from the participants.

❖ Amount asked for funding

If the Client is a new participant, his business is limited to a maximum investment of USD 1,000. If he maintains a good record with Sasom, e.g. by repaying his investments and fees according to agreed schedules, while maintaining 95% on-time repayment rate for all monthly revenue-sharing installments, the entrepreneur will be able to progress to the next level of allowable investment size and duration, according to a maximum-investment-size table, for his subsequent financing requests.

Maximum Loan Size and Duration Progression:

<table>
<thead>
<tr>
<th>Maximum Loan Size</th>
<th>Duration Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD 1,000</td>
<td>3-6 months</td>
</tr>
<tr>
<td>USD 2,000</td>
<td>3-6 months</td>
</tr>
<tr>
<td>USD 4,000</td>
<td>3-9 months</td>
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<td>3-12 months</td>
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<tr>
<td>USD 20,000</td>
<td>12-18 months</td>
</tr>
<tr>
<td>USD 35,000</td>
<td>12-21 months</td>
</tr>
<tr>
<td>USD 50,000</td>
<td>12-24 months</td>
</tr>
</tbody>
</table>
Currency and exchange rate: The investment amount is quoted in local THB currency, and the prevailing exchange rate will be used to calculate equivalent amount in USD.

❖ Fundraising Process (STEP 3)

Fundraising Period: If the requested investment is fully subscribed by Investors before the funding expiration date, the Client can choose to close the deal and have the funds transferred to his account. Or he can choose to wait until the end of the funding period to see if the revenue-sharing rate will go down further.

Revenue-sharing rate: The actual revenue-sharing rate (%) that the Client will have to pay is the weighted average of all the rates offered by the Investors.

Unsuccessful Process: If the requested investment is not fully funded by the expiration date, then funds that have been pledged will be returned to the Investors, and the applicant may start over again with a new investment proposal.

❖ Revenue-Sharing contracts (STEP 4)

See this section in the Investor Section above

❖ Funds Transfer and Disbursement (STEP 5)

When all participating Investors transfer money to the Client’s account, either through the service of Pay Pal or through international wire transfers, the actual amount of money received by the Client may differ from the amount originally requested because of such factors as:

(a) Deduction for payment of Client’s registration fee and other transactional/service fees to the Platform, such as legal service and translation fees.
(b) Fluctuation in the currency exchange market between the date of project posting and the date of money transfer.

A new client registration fee is paid upon disbursement of first-time investment request. This covers the cost of the entrepreneur verification needed to activate a new client account. This fee is deducted from the disbursement amount so that it does not need to be paid separately by the entrepreneur.

❖ Payments of Revenue-Sharing Fees and Repayments of Investment Funds (STEP 6)

After receiving money from the Investors, the Client is required to start repaying the money he has received from the Investors. These payments are broken down into two components, the revenue-sharing fees in monthly installments, and the repayment of investment amount which is due by the end of the investment duration.

The Client is often allowed a grace period (for example, two months) before he has to start making any payments.

See Terms of Repayment Section below for more details.

❖ Communication between Investors and Clients

The Clients are required to post monthly progress of their businesses on the Client Profile Pages of the Sasom Website, so that participating Investors are informed about how their investments are being used and what social impacts they are creating. As investors are also encouraged to ask questions or post comments/advice on the forum in the clients’ Profile Pages, entrepreneurs are encouraged to interact with the investors frequently. For those clients who do
not have easy access to the internet, mobile phone can be used as main communication venue for posting on the client’s page forum.

Such direct communication and dialogs between the Clients and the Investors can be valuable in encouraging and inducing the social-minded Investors to become more actively involved with the Platform and witness the impact they create to the entrepreneur and his/her family. The relationship formed could help lessen the probability of strategic default from the entrepreneur, and urge entrepreneur to be more informed and transparent about their business activities.

To help overcome the language barriers, the Platform’s translators will help translate the Client’s postings into English, and translate the Investors’ comments into Thai, effectively rendering the Platform bi-lingual.

- **Total cost/fees to entrepreneurs**
  - Registration Fee: USD 30 (when funding request is fulfilled)
  - Fund Administration (FA) fees: 5-10% (per annum) of the funding amount
  - Translation Fee: USD 10 (if needed)
  - Legal Service Fee: USD 20 (if contract is signed)
How to calculate revenue-sharing rate (knowing the funding amount, and projected total revenue)

n is the duration of the investment (in months)

F is the entrepreneur’s requested funding amount

M is the entrepreneur’s total projected revenues during the investment duration

And r is the equivalent annual interest rate given the funding amount

**Method 1:** Used when having the equivalent annual interest rate in mind

The revenue-sharing rate (S) for the Client’s project can be calculated, using the formula

\[ S = \frac{n}{12} \times \frac{F}{M} \times r \]

For example, if the entrepreneurs wants to provide a return to investors in an amount equivalent to 10% annual interest rate on the funding amount of USD 3000, the revenue-sharing rate can be calculated, given F=$ 3000, n = 6 months, M = $20000, as

\[ S = \frac{6}{12} \times \frac{3000}{20000} \times 10\% = 0.75\% \]

**Method 2:** Used when knowing the dollar amount of the desired returns for investment (A).

In other words, this method is used when knowing the dollar value of required revenue-sharing amount that the entrepreneurs have to pay the investors for the entire duration of investment. The revenue-sharing rate can then be calculated as,

\[ S = \frac{n}{12} \times \frac{A}{M} \]

For example, if the investors know that the dollar amount of revenue-sharing portion they require is equal to USD 300, given the funding amount of USD 3000. They can calculate the revenue-sharing rate, given n = 6 months, M =$20000, A = 150, as

\[ S = \frac{6}{12} \times \frac{300}{20000} = 0.75\% \]
**Equivalent annual flat interest rate in debt-financing**

From the investors’ point of view, what concern them are the amount they invest in the client’s business and their potential earnings. It makes more sense for the investors to base their investing decision on the equivalent annual interest rate, as it takes into account only variables that concern them and are indicative of their rate of return on investment.

Therefore, the platform will calculate the equivalent annual flat interest rate for each of the entrepreneur’s investment request and make it visible on the entrepreneur’s profile page, in order to facilitate investor’s investment decision. The calculation will use the inversion of the method 1 formula for calculating the revenue-sharing rate above, namely

\[ r = \frac{S}{(n/12) \times (F/M)} \]

The entrepreneur is also provided with an assisting tool to calculate the equivalent interest rate in order to facilitate their decision in setting the appropriate maximum revenue-sharing rate.
6. TERMS OF REPAYMENT

❖ Financial reporting

Fees based on actual revenues or estimated revenues from Business Plan?

When the Client prepares his Business Plan, he makes a careful estimation of the revenue streams generated by his business. And these revenues figures are used as the basis for the calculation of the desired revenue-sharing rates by both the Client and the Investors. (Please refer to another section about how to calculate the revenue-sharing rate.)

However, as the business actually progresses, it is highly likely that there will be meaningful discrepancies between the revenues actually generated by the Client’s business and the estimated revenues published in the Client’s Business Plan. In some months, the actual revenues may be higher than the estimated revenues in the Business Plan, while the opposite might be true in other months.

Normally, the revenue-sharing fees will be calculated from the actual revenues received by the Client’s business during a specified period of time. In such a case, if the actual revenues generated by the Client’s business during the term (duration) of the investment are higher than the revenue figures estimated in the Business Plan, then the Investor will earn a higher revenue-sharing income than he anticipated, and vice-versa. In another words, the Investor’s income is proportional to the revenues generated by the Client’s business, a property that is similar to an equity-based financing scheme (thus the quasi-equity-based classification).

The entrepreneurs will also be responsible to post quarterly report of their financial results. This requirement, together with the business plan submission, trains the entrepreneurs to build up discipline, improves their financial literacy, as well as ensures proper use of fund.
**Repayment schedule and rules**

The entrepreneur’s repayment to the Investor is broken down into 2 main components, the revenue-sharing component and the repayment of the investment capital.

**Payment of revenue-sharing fees:**

For the first component, the entrepreneur is required to pay for the revenue-sharing amount every month throughout the duration of the investment, which starts right after the grace period. At the end of every month, the entrepreneur is required to report the actual revenue they generated, which would be used to calculate the actual revenue-sharing amount to investors.

If they reported revenue is within 5% of the projected amount, it is considered to be equal to the projected amount, and the entrepreneur is required to pay the share from the projected amount.

If the entrepreneur reports that actual revenue is higher than the projected revenue, the entrepreneur’s honesty will be recognized and honesty points will be added in the entrepreneur’s profile page for every investor to see. Not only is this a positive indicator for potential investors in future rounds of investment requests, the entrepreneur will also be allowed to move more quickly to the next allowable investment sizes.

There are two versions of process to deal with the case when the reported revenue is lower than the projected revenue. And market test to compare the effectiveness in dealing with dishonest intention will be performed to select the better method.

The first method includes an auditing rule and an award-punishment rule, as follows:

If the entrepreneur reports that the actual revenue is lower than the projected revenue, then he or she can choose to be audited by a third-party auditor. The entrepreneur will be responsible for ¾ of the auditing cost, while the platform takes care of the rest. If the audit result reveals that the
entrepreneur is being honest, he or she will pay the revenue sharing portion from the lower actual revenue. However, if the audit result shows that the actual revenue is higher than reported, then the entrepreneur will be punished by having to pay the whole auditing cost, a revenue-sharing portion from the higher actual revenue, and a penalty cost equaling to some multiples of the difference between the actual revenue and the revenue reported. Dishonest points will be shown on the entrepreneur’s profile page and the entrepreneur will not be allowed to move forward to the next investment size and will be moved back two stages. If the entrepreneur is in the first stage, he is banned from using the platform. In a very severe case, the entrepreneur can also be banned from the platform, regardless of the investment stages.

The second method takes into consideration of the case when auditing threat is not effective, because the entrepreneur can find a way to falsely report to the auditing agency, and is able to convince the agency that the falsely reported revenue is equal to the actual revenue, whether by transacting in cash and hiding the cash received, or any other means. It also takes into consideration of the case when auditing becomes frequent and thus too costly for the platform.

In this case, threat in terms of investment size progression will be utilized instead of the auditing threat. In particular, each time the entrepreneur reports a revenue figure that is lower than the projected amount, an indication will be made visible in the entrepreneur’s profile page for the investors to see, and the entrepreneur will be moved 1 step backward in the investment size progression. If they are at the first level of progression, reporting a revenue figure lower than the projected amount will render them banned from the platform’s service for 1 year, during which time, their profile with negative indication will be made visible to all the investors.
Repayment of investment fund:

For the second component, the repayment of investment amount, the entrepreneur is required to repay the total investment amount to investors by the end of the investment duration.

For contracts with duration over 6 months, the entrepreneurs are encouraged, but not required, to repay the investors or upload half of the investment amount to the platform at the middle of investment duration. If this option is selected, the entrepreneurs are given preferential status, to be seen and witnessed by all investors. The amount uploaded halfway, but not yet returned to investors, will also be put into a savings account earning 3-4% interest rate. The interest earned from the amount will be returned to the entrepreneurs.

The entrepreneurs can also choose to upload any amounts to the platform each month. Investors will be able to see this and it will be a positive indication of the entrepreneur’s capable management, prudence and intention of saving up to return the investors.

After uploading the repayment amount, the entrepreneur has one chance to withdraw a portion or all of the uploaded amount during the course of the investment duration, to cover emergency cost if needed.

✈ Consequences of delayed repayments

If an entrepreneur misses a monthly payment and fails to notify Sasom, Sasom will issue one courtesy reminder by email and text message to the entrepreneur’s mobile phone within one week of the missed payment's due date. If the entrepreneur fails to respond, Sasom will report the delinquency to the community official who recommended the member to Zidisha who would offer to mediate the delinquency. As a last resort, we may opt to pursue legal action following local regulations in each country.
The investors will also be notified of the late payments, and are most likely inquire into the entrepreneur’s situation and will demand an explanation.

On-time payment statistics visible on the entrepreneur’s profile page would also deteriorate. The entrepreneurs will be moved 1 step back in the loan size progression level each time the delay occurs. If no lower level exists, the entrepreneur is exempted from using the platform for 1 year.

❖ Measures taken when clients default on repayments

If mediation resulting from delayed payment is not effective, Sasom may determine that the entrepreneur has defaulted. Or if at the end of the investment duration, the entrepreneur does not repay the full investment amount to the investors, Sasom will also determine the entrepreneur to have defaulted.

The consequences of defaulting on a Sasom investment amount include disqualification from funding any new investment request in the future, reporting of the default to local credit bureaus as well as all organizations that have previously provided capital to the entrepreneur or have the potential to provide capital to entrepreneurs in the future, and finally a legal prosecution resulting in confiscation of the entrepreneur’s property, fines and other legal penalties.
7. ENTREPRENEUR’S PERFORMANCE RECORD

- **Feedback rating from investors**
  
  All lenders who participated in funding the loan post a “feedback rating” on their funding experience to the Platform’s website. The feedback rating can be either Positive, Neutral, or Negative as a representative of the whole experience. There will also be other types of rating categories, such as frequency and quality of interaction and updates with the investors, perceived productive use of funds, impact created, etc.

- **On-time payment statistics**
  
  A statistic indicating the percentage of on-time payment is shown on the entrepreneur’s profile page. The number of times the entrepreneurs delay in repayments will be made clear on the page as well.

- **Monthly updates to investors**
  
  Monthly updates containing revenue figures, information about business activities and use of funds, impact and progress, and other types of updates at the discretion of the entrepreneurs will be made visible to investors.

- **Achiever and Honesty points**
  
  If the entrepreneur reports a revenue figure which is higher than the projected revenue, the achiever and honesty points will be rewarded to the entrepreneur, which is a positive indication for future investors and allows them to move faster to larger investment level.
**Dishonest Points**

Each time that the platform finds that the entrepreneur possess demonstrates a dishonest intention or engage in any misconduct, dishonest points will increase. The points and the specific description of the misconduct will be made visible to all investors.

**Prudence Points**

A positive record will be made and a statistic will be shown when entrepreneurs upload partially or all investment amount into their platform account (but not yet repay to the investors) before the end of the investment duration.

A positive record will be made visible as well if entrepreneurs decide to repay the investors before the deadline.

These will be positive indicators for future potential investors and will also allow the entrepreneurs to move faster in the investment size progression.

**Number of successful rounds and statistics**

The number of successful rounds of financing will be made visible, as well as a statistics showing the portion of successful rounds and total financing rounds.
8. TRANSACTION

- **Transferring funds between Sasom and entrepreneurs**
  
  Investment amounts are disbursed via electronic payment order from a local currency bank account, and entrepreneurs deposit cash repayments to the same checking account at the branch located nearest them.

- **Transferring funds between Sasom and investors**
  
  Each time Sasom receives a repayment installment from an entrepreneur, investor’s share of the amount received is credited to his or her Sasom funded balance. Investor may then use it to finance new Sasom investments, or request a withdrawal of all or part of his or her balance.

  Investors worldwide may credit their accounts instantly using a PayPal account, or with a credit or debit card as a PayPal guest.

  Investors worldwide may also transfer funds to their accounts via bank wire. Fees for wire transfers usually range from $50 to $100.

  Investors who hold Thai bank accounts may also deposit funds into their Sasom accounts by mailing a paper check to Sasom, or by using their bank's Bill Pay service to have a check mailed to Sasom. There is no fee deducted from Investor fund uploads made via paper check from a Thai bank account.

  Investors residing outside Thailand may withdraw funds from their Sasom accounts via PayPal. Investors residing outside the Thailand who are not able to receive PayPal transfers will be able to withdraw funds from their investors’ accounts using wire-transfer services.
Currency fluctuation

The investment amount is quoted in local THB currency, and the prevailing exchange rate will be used to calculate equivalent amount in USD seen by the investors.

Under Sasom investment model, investment amounts are fixed in local currency upon disbursement, and the investors assume currency risk. Exchange rates fluctuate, causing the US Dollar value of the investments to either increase or decrease during the course of the repayment period. This could lead to monetary gains or losses for investors.

The exchange rates applied to all transactions on the Sasom website are the interbank value of one US Dollar in THB, as posted on the foreign exchange conversion website www.oanda.com. We update the website exchange rates on the first day of each month, so that the exchange rates in effect on the first of each month are applied to all transactions during that month.

If an investment application is posted in March, it was converted to US Dollars for fundraising using the March 1 exchange rate. If that same investment is disbursed in April, it is converted back from the US Dollar amount raised to Thai Baht using the April 1 exchange rate.

When entrepreneurs create an investment application, the local currency (THB) amounts they request are converted to US Dollars, and the investment amount remains fixed at that US Dollar value throughout the fundraising period until the investment is disbursed.

At the time of disbursement, the US Dollar amount raised is converted back into local currency at the exchange rate in effect on the date of disbursement. At disbursement, investment amounts are fixed in local currency, so that entrepreneur’s repayment obligations are not affected by exchange rate fluctuations.
Each time an entrepreneur makes a repayment, the amount received in local currency is converted to US Dollars at the exchange rate in effect at the time the repayment is received. The resulting US Dollar value of the repayment becomes the basis for the amounts credited to the investors who funded the loan.

9. ON-SITE ASSISTANCE: CLIENT RELATION ASSOCIATES

Client Relation Associates (CRAs) are volunteers from local areas. They are members of public service clubs or organizations, within or outside local universities. Each CRA will be regularly calling or visiting 5-7 entrepreneurs in their local areas, overseeing the entrepreneur’s business activities and ensuring that they are running their businesses like they claim to do. They will also be helping the entrepreneurs with any technical support, application process, and assisting entrepreneurs in using the online platform, including posting investment requests, ongoing progress updates and transferring funds.

In the case of any auditing needed (see section 6 for more information), CRAs who are students majoring in accounting will provide the auditing service.

10. INTERNET CENTERS / ONLINE ACCESS FOR ENTREPRENEURS

Local Thai post offices in each district are the main internet centers for rural villagers without personal access to the internet. They are required to use the internet for training, applying to join the platform, submission of business plan and financial report, as well as progress updates and interactions with the investors.
11. COMMUNICATION VENUE FOR INVESTORS AND CLIENTS

The forum in each of the client’s profile page is the main venue for communication for investors and clients. Clients will generally need to be connected to the internet to post on the forum. However, since mobile phone is widely used even in rural areas of Thailand, for clients who live in the remote, rural parts of Thailand with relatively harder access to the internet can have the option of interacting with the investors by using text messages function in their mobile phone to send messages to platform, which would in turn post the messages to the forum for the entrepreneurs.

12. PLATFORM SUPPORT

- **Online-training program**

  Upon joining the platform, the entrepreneur needs to complete fundamental business training and exam. The training informs the entrepreneurs how to write the required business plan and create quarterly financial report. Once completed, the entrepreneur is allowed to submit the business plan and request for funding.

- **Language translation service**

  The Platform will provide Thai-to-English translation services for its Clients. If required, the company’s translators will translate the Clients’ Business Plans to be posted on the Platform, as well as their periodical progress postings on their Profile Pages, for the benefits of the international Investors.
By the same token, comments and advice posted by the Investors on their Clients’ Profile Pages will also be translated into Thai, for the benefits of the Clients. In effect, the Platform will be bi-lingual.

13. EXHIBITING TRANSPARENCY

❖ Access to calculation on all types of fees

All types of fees, interest rate, revenue-sharing rate, and repayment amounts applied on the platform will have links for detailed calculations for user’s reference.

❖ Transaction details posted

All of the transaction details will be posted and visible for all users. The information posted include dates and amount of transaction, the username of investors, amounts bid, amounts accepted, proposed revenue-sharing rate, etc.

❖ No guarantees

No Guarantee of Investment repayment

Sasom does not guarantee repayment of investments. Investors make funding decisions and transactions at their own risk, with the understanding that they may lose part of all of the funds Invested. Investors should never lend funds that they cannot afford to lose through Sasom.
No Guarantee of Client’s Information

Sasom is not a bank or credit bureau. Therefore, it does not offer any guarantee of the accuracy of information presented by entrepreneurial clients, and does not conduct any assessment of the incomes, debt levels or credit-worthiness of the clients.
BUSINESS MODEL

The Platform’s Revenue and Cost Structure

1. Revenue Structure:

The platform derives its revenues/income from various categories of fees collected from the participating Clients and Investors.

(a) Funding Administration Fees (FA fees):

For each successful funding round, the Client would be charged a percentage of the funding amount he has received from the Investors, as compensation for the funding services and administration provided by the Platform. These FA fees constitute a major source of revenues for the Platform, (as well as a significant additional cost of funds for the Client.)

The rate for the FA fee (percentage of the funding amount) should be calculated to provide the Platform with sufficient revenues and profits to sustain its operations and growth. Ideally, the Platform should set an FA rate that allows the Platform to achieve its financial objectives, without putting excessive financial burden on its Clients. The FA rate is expected to range from 5% to 10% (per annum) of the funding amount, and the amount of fund administration fees would be directly deducted from the money the Client receives from his Investors.

The Platform would also collect similar fund administration fees from its Investors. But the fees will be collected only when the investment fund is repaid by the Client. The FA rate for the Investors is expected to range from 2.5% to 5% of the funding amount, and the Investor should take this into account when calculating the return on his investment.
On total, the Fund Administration fees received by the Platform will be the sum of the fees from both the Investor and the Client. The total rate for the FA fees - the percentage of the funding amount to be charged by the Platform - is the sum of the two rates, which together range from 7.5% to 15% (per annum) of the funding amount.

(b) Registration Fees:
On registration, the Client is obligated to pay a one-time registration fee of THB 900 ($30). But he will have to pay the amount only when he has successfully concluded his first funding arrangement. The Investor can register for free.

(c) Legal contract fees: Fees will be charged from both the Investor and the Client when they sign the necessary legal contract, after they have successfully concluded the funding process. Both parties will be charged a fee of 600 baht ($20) each.

(d) Translation Service Fees: The Platform will provide Thai-to-English translation service for the Thai Client who needs the service. Specifically, the Platform’s translator will translate contents in the Clients’ Business Plan to be posted on the Platform’s website. The Platform will also translate the Client’s posting about the progress of his project on the Profile Page. On the other hand, the translators would provide English-to-Thai translation services to the Investor who wants to post comments, questions, or advice on his Client’s profile page. For these services, the Platform will charge a service fee of 300 baht ($10) per party.

(e) Fund Transfer Service Fees: When the Investor transfers funds to his Client in Thailand, either through PayPal or wire transfer, he is responsible for the direct cost involved. Similarly, the Clients would also have to be responsible for any fees incurred in the process of transferring revenue-sharing fees and repayment of principal to the Investors.
(f) Other Fees: Depending on the circumstances, there may be other fees that the Platform needs to charge the participants. In such cases, the Platform will post the corresponding service rates on its website. Assume other fees to amount to $10 per funding amount.

2. Cost Structure:

The Platform does not have any financial funding cost, because all investment funds are provided by the registered Investors. Therefore, it does not have any significant amount of variable costs, which are proportional to its sales (funding amount). Therefore, the Platform’s primary cost structure involves fixed operational expenditures, as follow:

(a) Initial start-up costs: These include company registration fee, office decoration and equipments, etc. Let’s assume that the initial start-up costs amount to $50,000, and that the amount is amortized at the rate of $10,000 per year for 5 years.

(b) Office Rental: Let’s assume that the Platform rents a small, 100 square meter office in Bangkok at the cost of $1,000 a month, amounting to $12,000 annually. (Office rentals in Thailand are not high compared to the US)

(c) Salary and Compensation: Assume that Platform employs a manager for $20,000 a year, and 3 staffs for $7,000 each (Thailand’s cost of living is much lower than the US’s). The total amounts to $41,000 a year.

(d) Internet Web maintenance cost: Maintenance costs for the Internet Website are assumed to be $ 8,000 a year.

(e) Other Expenses: Other expenses are assumed to amount to $5,000 a year.
3. Break-even Analysis:

On the Revenue Side, assume that:

\[ \begin{align*}
N &= \text{Number of successful funding transactions per year} \\
A &= \text{Average amount per funding transactions (US$) = $1,500} \\
D &= \text{average duration of funding = 6 months} \\
f_a &= \text{annualized rate of Funding Fee (FA fee above) = 10% per year on funding amount} \\
f_d &= \text{rate of Funding Fee per funding duration} = f_a*(D/12) = 5\% \text{ per funding amount (per funding duration)} \\
F_r &= \text{Registration fee} = $30 \\
F_c &= \text{Legal fee (contract) = $20 + $20} \\
F_t &= \text{Translation fee} = $10 + $10 \\
F_o &= \text{Other fees} = $10
\end{align*} \]

Hence
\[ R = \text{Total Annual Revenues for the Platform} = A*f_d*N + (F_r + F_c + F_t + F_o)*N = $1,500*5\%N + ($30 + $40 + $20 + $10)*N = $175*N \]

In other words, each average funding amount of $1,500 provides a contribution of $175 to the Platform’s annual revenue.

On the Cost Side, assume that:

\[ \begin{align*}
C_a &= \text{annualized amortization of start-up cost} = $10,000 \\
C_r &= \text{annual office rental expenses} = $12,000
\end{align*} \]
Cs = annual salary expenses = $41,000
Cw= annual website maintenance costs = $8,000
Co = other costs = $5,000

Hence  
C = Annual fixed operating costs
   = (Ca + Cr +Cs + Cw +Co)
   = ($10,000 +$12,000 +$41,000 + $8,000 + $5,000)
   = ($76,000)

At Break-even Point:

R = C
$175*N = $76,000
N = 435

In other words, for the Platform to break-even in a year, it has to produce 435 successful funding transactions for its Clients, at an average funding amount of $1,500 and an average funding duration of 6 months, according to the Assumptions given for the Platform’s Revenue and Cost Structure.

S = The Break-even Sales, or the total amount of successful funding through the service of the Platform in a year
= A*N = $1,500*435 = $652,500

That is, in order to break-even, the Platform will have to generate at least a total of $652,500 in funding amount for its Clients in a year.
MARKETING

❖ Countries serviced

Initially, the platform would only operate for entrepreneurial clients in Thailand. In later stages, it strives to expand its operation to other Southeast Asian countries with similar socio-economic characteristics to Thailand.

However, the platform allows investors from all over the world with the access to the internet and capital transfer venues [see more information in the transaction section] to become the platform investors.

❖ Reaching Out to Entrepreneurs

Even though potential borrowers themselves must take the initiative to apply for funding, Sasom Client Relation Associates also offer informational presentations to members of local organizations, cooperatives and villages.
SECTION IV: INCENTIVE COMPATIBLE REVENUE-SHARING MODEL

Revenue-Sharing Model

Introduction

As shown in the previous sections of this paper, the revenue-sharing model provides multiple benefits over traditional debt-based model. Not only does it avoid direct competition with the government-subsidized MFIs in Thailand, and fit to the current regulatory environment in Thailand, which imposes a minimum registered capital requirement of BHT 50 million on non-banking lending institutions and a restricting 15% interest rate ceiling on such MFIs’ loans, the model also provides substantial advantages through its inherent characteristics.

Some of the advantages include direct benefits to low-income entrepreneurs, as well as the fact that the investors’ financial gain is linked more directly with the entrepreneur’s business success, which creates additional desired results for the online peer-to-peer funding platform. Firstly, it encourages investors to conduct more vigilant screening of entrepreneurs before making investment decision. Secondly, it gives investors the incentive to provide additional non-monetary support to entrepreneurs, whether through a philanthropic purpose or in order to influence their financial gains. Thirdly, it encourages more frequent interaction between investors and entrepreneur which helps reduce moral hazard problem especially prominent in an online peer-to-peer setting.

Despite the tremendous benefits it offers, the revenue-sharing model which targets at low-income entrepreneurs and operates in an online peer-to-peer platform setting, presents substantial implementation challenges. Innovation is required to overcome challenges associated with due diligence and information asymmetry. Modification to the structure of the traditional revenue-sharing model is also warranted in order to successfully implement the model.
Therefore, the following section proposes the required innovation and features as part of the revenue-sharing operation that enhances feasibility of the model and renders validity of the platform.
Incentive-Compatible Revenue-Sharing Contract

This revenue sharing financing model is designed to take advantages of the beneficial features of a quasi-equity financing scheme over a traditional debt-based model, while overcoming the implementation challenges that have prevented widespread adoption of quasi-equity financing instruments in MFIs for many decades.

Flexibility and Incentives

First, the revenue-sharing model allows an entrepreneur’s repayment stream to reflect more accurately the nature and condition of the entrepreneur’s business. Unlike the loan-based financing model offered by most MFIs, which subject the entrepreneur to a fixed, inflexible amount of interest payment every month, the monthly payments of the revenue-sharing fees are directly tied to the level of the entrepreneur’s business’ operational success, measured by the revenue generated each month by the Client’s business.

On one hand, such a financial arrangement provides the Client with the flexibility to manage his cash flow more efficiently. On the other hand, it incentivizes the Investor to involve more closely in the Client’s business, because the Investor’s financial pay-off are closely linked to the Client’s operational success. In other words, the Investor has a vested interest in the entrepreneur’s business venture, and thus the Investor is more willing to act as a mentor for his Client. These factors, in effect, increase the chance that the entrepreneurs become successful.

Adverse Selection and Moral Hazard

Second, the model does not forgo the integrity of the system and overcomes the lower-tier problem of trust, known as “adverse selection” and “moral hazard”, by instituting contracts
with an incentive structure that reduces the agents’ (entrepreneurs’) undesirable behaviors, which give rise to such problems.

It prevents “adverse selection” by introducing the following features:

- The Platform imposes the business-plan submission requirement, thus reducing the degree of information asymmetry between the entrepreneur and the Investors. The work required also ensures that the entrepreneurs who are eligible to join the platform are those who possess good understanding of their business, or otherwise at least strive to gain the knowledge and support in doing so.

- The Platform requires reference letters from well-respected community leaders, thus instituting a better level of client selection.

- It links the investor’s financial reward more directly to the entrepreneur’s success, which incentivizes the investors to carefully select and fund entrepreneurs with potentially profitable businesses.

- The Platform sets a limit of contract duration for first-time entrepreneurial users, therefore the credit-worthiness of the entrepreneur becomes apparent within a shorter time period.

The model also prevents two main types of moral hazard. The first is a form of principal-agent problem found in equity contracts, which arises when the agent (entrepreneurs) works in his own interest at the cost of the principal (investor or bank). In particular, the moral hazard arises in this set up if the agent misuses the funds and manages his business in an irresponsible and ineffective manner. The revenue-sharing model helps prevent this aspect of moral hazard especially by strategically inducing the cultivation of a closer personal tie/relationship between the agent (entrepreneur) and the principal (investor). It does so by making the investor’s financial
payoff depend directly on the entrepreneur’s operational success, and by providing a convenient venue for regular dialogs between the two parties. The investor, who is incentivized to take a more active involvement in his client’s business, is more likely to utilize the provided communication venue to connect personally with the entrepreneur, effectively creating a stronger tie between them that reduces the likelihood of outright fraud by the entrepreneur, and allowing the investor to investigate more closely the entrepreneur’s activity and operation, as well and inquire into any observable abnormalities when further preventive action can still be taken.

The second form of moral hazard, inherent and specific to a quasi-equity financing model such as the revenue-sharing scheme, arises from possible dishonesty in reporting the actual revenue figures by the entrepreneurs. This can occur because the actual revenues realized from the entrepreneur’s business are not observable by the investor, and the accuracy of these revenues figures are not verifiable unless a costly audit is undertaken. In order to prevent and deal with this kind of moral hazard, this revenue-sharing model has incorporated operational measures designed specifically to discourage fraudulent practice, particularly dishonesty in revenue reporting, on the part of the client. Towards this end, a comprehensive system of reward and punishment will be emphasized to the client, and strictly enforced. This tool, at the same time, encourages human capital development, and incentivizes the entrepreneur to maximize his effort in running a successful business.

The following sections are organized as follows. In the next section, descriptions of how the system works are illustrated, followed by a section which demonstrates the calculation of % revenue sharing. We then introduce the assumptions that underlie the analysis of the contract, then discuss features of a contract that minimize asymmetric information problems, namely,
terms of repayment, auditing rule, and penalty-reward functions. Finally, the section ends with
the analysis of the strategies that the entrepreneurs would take, given the incentive structure in
the contract, together with the exploration of the extent that moral hazard would result.
1. System Description

First, the entrepreneur who wishes to join the platform is required to provide personal data (including copies of national identity cards, home location, and the contacts of family members and neighbors), 2 letters of reference from well-respected community leaders, and submit a business plan according to the format set by the platform.

This business plan will include financial projections of monthly revenues for the duration of the investment. The entrepreneur would be required to decide on the amount of requested capital, duration of the investment, maximum revenue sharing rate, and the grace period before having to make the first repayment.

After the platform approves the entrepreneur’s application, the entrepreneur’s profile will appear on the listing for registered investors to browse through. Interested investor would select the entrepreneur to provide funding to, and bid for a portion of the entrepreneur’s total investment request, stating the amount he wants to invest and the revenue-sharing rate he wants, which must not exceed the maximum rate set by the entrepreneur.

Once the entrepreneur’s requested amount is fully funded and the entrepreneur is satisfied with the rate the investors bid, the contract is signed and transaction begins. The requested funding amount is transferred from the investors directly to the entrepreneur, who uses the funding to start or run his/her entrepreneurial businesses.

After the grace period, the entrepreneur is required to pay the agreed percentage of revenue generated each month to the investors and pay the full funding amount back to the investors by the end of the investment duration.

In order to foster a closer relationship between the entrepreneur and the investor, the client is required to post the progress of his business every month on his profile page on the platform’s
website, and the Investor is also encouraged to post questions, comments and advice on the Client’s profile page.

2. Parameters Details

**Duration of the Investment** - In order to deal with the problem of “adverse selection”, this model encourages short duration of investments, especially for first-time users whose credit history and quality are unknown to the platform. The platform allows for a duration ranging from 3-6 months for first-time users. The short investment duration allows for the quality and behaviors of the entrepreneurs to be exposed within a short period of time, ameliorating the possible effect of adverse selection. If the entrepreneur is successful in repaying the investors in a timely and honest fashion, with the approval of contributing investors, the entrepreneur is allowed for an option to extend the investment to another period (double the original duration).

The entrepreneur’s specific business and earnings cycle should be taken into consideration in setting the investment duration, in order to allow for sufficient time to generate enough earnings to repay the financing amount. The entrepreneur might have the incentive to choose a shorter investment duration, in order to quickly become eligible for a larger investment amount once the current investment round is successfully completed. However, care must be taken to keep a good balance between the pace of moving to next, higher funding limit and the ability to repay the investment amount on time, because the penalty for not being able to repay on time is significant, including a negative profile on the platform, inability to move on to the next funding limit, difficulty in receiving funding in the future, adverse reputation announced to the public credit market, and being banned from using the platform.
Amount of financing requested - Since this funding amount will have to be returned to contributing investors at the end of the investment duration, the amount should be carefully selected to reflect true financing need during the period as well as the ability to generate enough earnings to repay the amount by the given timeframe.

A first-time entrepreneurial user can request for a funding amount up to $1,000 USD. Each time the entrepreneur repays the investment on time while maintaining 95% on-time repayment rate for all monthly revenue-sharing installments, the entrepreneur will be able to progress to the next level of allowable investment size and duration, according to the following table:

### Maximum Loan Size and Duration Progression:

1. USD 1,000  3-6 months  
2. USD 2,000  3-6 months  
3. USD 4,000  3-9 months  
4. USD 6,000  3-12 months  
5. USD 9,000  6-12 months  
6. USD 12,000  6-12 months  
7. USD 15,000  6-15 months  
8. USD 18,000  12-18 months  
9. USD 20,000  12-18 months  
10. USD 35,000  12-21 months  
11. USD 50,000  12-24 months

Grace Period - A grace period covers the amount of time the entrepreneur requests to be exempted from payments, right after which the monthly-revenue-sharing starts. The grace period is not included in the duration. For example, if the contract is signed in December, the entrepreneur requests a grace period of 2 months, and the duration of investment is 6 months,
then the entrepreneur starts paying the revenue-sharing amount starting from March to August and repays the whole investment amount by August.

**Revenue-sharing rate** - This is the % agreed upon by both the entrepreneur and investors, to be taken out from the entrepreneur’s monthly revenue and paid to investors who contribute to the investment amount. This percentage depends on the accumulated amount of projected revenue for the duration of the investment, prepared by the entrepreneurs, and the financing amount relative to how much the entrepreneurs are willing to share to investors from their generated revenues. Because of the relationship between these factors, the revenue-sharing rate can be compared to the interest rate in the debt-based financing model.

Since the % revenue-sharing rate alone is not directly indicative of the return on the investors’ investments, because it depends on multiple factors as described, it makes sense to also calculate and publish the loan-based interest rate which is equivalent to the revenue-sharing rate offered by each entrepreneur, in order to facilitate the investors in selecting the entrepreneur who offers them the best returns on their investments. The same calculation and comparison can also help entrepreneurs decide on the appropriate revenue-sharing rate for their investment round.

**Revenue-Sharing Rate Calculation**

The revenue-sharing rate for a Client’s business can be calculated as follow:

Let X be the revenue-sharing rate (% per annum)

Let M be the total amount of projected revenues generated during the investment duration

Let F be the funding amount
Let $r$ be the equivalent annual interest rate in the case of debt-financing model (% per annum)

Let $N$ be the duration of the investment (in months)

For example, if the projected revenues for 6 months are $2,000, $3,000, $4,000, $4,000, $3,000, and $4,000, then the total projected revenues for the 6 months are $20,000. This $20,000 is the total Revenues during the investment period used to calculate the revenue sharing rate.

$$X*M = r*F*(n/12)$$

For example, in the above scenario, $M = 20,000$, $n = 6$ months, the requested funding amount $F$ is $3,000$ and $X$ is what the entrepreneur is trying to find, given the amount the entrepreneurs are willing to share ($r*F$). Suppose the entrepreneur is willing to share $150$ from the revenue he/she will generate during the next 6 months, the amount then represents ($r*F*n/12 = 150 \Rightarrow r = 300/3000=10$) 10% of the funding amount $F$. This is equivalent to a debt-financing scheme (flat interest rate) with an annual interest rate of 10%. Therefore, the revenue sharing rate in this case will be $X = 150/20000 = 0.75\%$.

In other words, if the entrepreneur is not willing to pay the investors more than the equivalent of an interest rate of 10% per annum on the funding amount, then he will have to set a maximum revenue-sharing rate for his project of 0.75% per annum.

To illustrate how the projected revenue by the entrepreneurs could affect this rate, suppose total projected revenue for 6 months = $M = 10000$, but the entrepreneur is still willing to share $150$, then the revenue-sharing rate will be $X=1.5\%$, while the equivalent interest rate $r$ is still 10%.

From the investors’ point of view, what concern them are the amount they invest in the client’s business and their potential earnings. In the above two cases, even though the amount of
projected revenues are different, in both cases the funding amount is $3000, and the amount expected to be paid back in addition to the $3000 is $150. It is important to note that the revenue sharing rate is different while the equivalent interest rate is the same. 
\[
(0.75/100)*20000*2)/3000 = 10% = ((1.5/100)*10000*2)/3000.
\]

Therefore it makes more sense for the investors to base their investing decision on the equivalent annual interest rate, as it takes into account only variables that concern them and are indicative of their rate of return on investment.

Using the derived formula of \( S = (n/12)*(F/M)*r \), we can calculate the value of the revenue-sharing rate \( S \) for the Client’s project, if the equivalent annual interest rate \( r \) for the funding amount is given. Moreover, using the information given in the example above, we can create a Table to show the relationship between the revenue-sharing rate and its equivalent interest rate, given funding amount \( F \), duration \( n \), and total project revenue \( M \) in order to facilitate the comparison between the two rates, as follow:

<table>
<thead>
<tr>
<th>Interest Rate</th>
<th>Revenue Sharing Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>0.47%</td>
</tr>
<tr>
<td>8%</td>
<td>0.60%</td>
</tr>
<tr>
<td>10%</td>
<td>0.75%</td>
</tr>
<tr>
<td>12%</td>
<td>0.90%</td>
</tr>
<tr>
<td>14%</td>
<td>1.05%</td>
</tr>
</tbody>
</table>

3. Terms and Schedule of Repayment

The entrepreneur’s repayment to the Investor is broken down into 2 main components, the revenue-sharing component and the repayment of the investment capital.

For the first component, the entrepreneur is required to pay for the revenue-sharing amount every month throughout the duration of the investment, which starts right after the grace
period. The exact amount of payment each month depends on ex post actual revenue, $y_a$, relative to the ex ante projected/expected revenue, $y_e$. After discussing about auditing rule, penalty-reward functions and incentive structure of the contract, the details on the repayment stream of the entrepreneur will be further explored.

For the second component, the repayment of investment amount, the entrepreneur is required to repay the total investment amount to investors by the end of the investment duration. For contracts with duration over 6 months, the entrepreneurs are encouraged, but not required, to repay the investors or upload half of the investment amount to the platform at the middle of investment duration. If the option is chosen, the entrepreneurs are given preferential status, to be seen and witnessed by all investors. The amount uploaded halfway, but not yet returned to investors, will also be put into a savings account earning 3-4% interest rate. The interest earned from the amount will be returned to the entrepreneurs. This is done to incentivize entrepreneurs to gradually save up their money to be repaid to investors, in order to minimize risk of not being able to repay at the end of duration. However, the entrepreneur has the option of not uploading or repaying half of the amount halfway through, because the platform’s objective is still to honor the unique characteristics of a quasi-equity platform which does not subject the entrepreneurs to fixed incremental repayments of capital throughout the duration. The entrepreneurs will also have the option to upload any amounts to the platform each month. Investors will be able to see this and it will be a positive indication of the entrepreneur’s capable management, prudence and intention of saving up to return the investors. Finally, after uploading the repayment amount, the entrepreneur has one chance to withdraw a portion or all of the uploaded amount during the course of the investment duration, to cover emergency cost if needed. This gives another layer of flexibility to the entrepreneurs.
4. Assumptions for further incentive structure analysis

Assuming the analysis is performed for period 1 (month 1), the assumptions are:

1. An investment amount \( F \) is projected to yield a revenue of \( y_e \) in period 1
2. The entrepreneur reports a revenue for period 1 of \( y_r \)
3. If audit is performed, the actual revenue figure is revealed as \( y_a \). If the entrepreneur reports the figure truthfully, \( y_a = y_r \). However, in the case of false reporting, \( y_a \) will not be equal to \( y_r \).
4. The revenue-sharing rate is \( s \).
5. The audit fee is \( A \).

5. Auditing Rule and Reward-Punishment Function

Since auditing is costly, the objective is to minimize the need for auditing while making sure the entrepreneurs do not misreport their revenue figures.

This can be done by instituting proper incentive structure, with auditing rule and reward-punishment function.

Case: \( y_r < y_e \) (System Method 1 as described in the Business Plan is analyzed)

The auditing rule indicates that the audit will be implemented only for the case where \( y_r < y_e \), and only if the entrepreneur requests the audit. If the entrepreneur chooses not to audit, then he/she pays \( s * y_e > s * y_r \). If on the other hand, the entrepreneur chooses to be audited, he/she will be responsible for \( \frac{3}{4} \) of audit fee = \( \frac{3}{4} A \), while the platform would take care of \( \frac{1}{4} A \). The entrepreneur is also responsible for providing necessary financial record and documents to the third-party auditor.
If the audit reveals that $y_r = y_a$ then the entrepreneur is truthful and will be required to repay the profit-sharing amount of $s*y_r = s*y_a < s*y_e$. However, if the audit reveals that the entrepreneur reports false figure, and $y_r$ is indeed lower than $y_a$, then the entrepreneur will be required to pay $s*y_a > s*y_r$, cover all the incurred auditing fee A, and incur a penalty fee of $\beta(y_a - y_r); \beta > 1$. A negative record will also be made visible in the entrepreneur’s profile page and he/she will not progress to the next investment size level for the following round. If the entrepreneur repeats the dishonest reporting for the second time, then he/she is banned from using the platform.

With high enough $\beta$ for the penalty fee $\beta(y_a - y_r)$, and reasonable level of audit fee $A$, this contract will incentivize the entrepreneurs to only choose to audit only when $y_a$ is truly lower than $y_e$. This result can also be shown with the following equation:

In order for the entrepreneur to choose the audit option and appeal for the reported revenue figure, it must be that

$$S_y_a + \frac{3}{4}A < S_y_e$$

Since $A$ is a positive number, thus $\frac{3}{4}*A$ is also positive, it must be that $y_a < y_e$.

In other words, the entrepreneurs who choose to audit will be those whose business really generated a revenue lower than the projection for that particular month. The entrepreneur, who hopes to commit fraud and repays a smaller amount than he needs to by reporting that the revenue he actually generates is small than what he projected, will be incentivized not to choose the audit option, which would reveal their fraudulent intention and incur significant cost to them. This is the reason why the platform will support $\frac{1}{4}*A$ of the audit cost if the entrepreneur chooses to audit, because these people are likely to be reporting true figures, and the platform aims to reward honesty. Having the entrepreneurs paying for $\frac{3}{4}*A$ would however incentivize
the entrepreneurs to make more accurate and reasonable revenue projection and put in more
effort to run successful business that would generate targeted revenue.

A more rigorous analysis shows that, in order to make sure that the honest entrepreneur
whose actual revenue is lower than projected revenue is not better off choosing to pay \( s^*y_e \), but
choose the audit option in order to incur the necessary minor punishment of the audit fee (used to
incentivize better effort in running business and in making more accurate projections), it must be
that

\[
S_y_a + \frac{3}{4}A < S_y_e
\]

\[
A < \frac{4}{3}S(y_e - y_a); \quad y_a = y_r < y_e
\]

Also, in order to make sure that the fraudulent entrepreneur who falsely claims that his or her
actual revenue is lower than project revenue is not better off choosing the audit option, it must be
that

\[
S_y_a + A + \beta(y_a - y_r) > S_y_e
\]

\[
A > S(y_e - y_a) - \beta(y_a - y_r);
\]

\[
\beta > 1, y_a > y_r, y_e > y_r, \text{but could be both ways for } y_a \text{ and } y_e
\]

\[
When \ y_a > y_e, \text{ since } -\beta(y_a - y_r) \text{ is always negative}
\]

*The term* \( S(y_e - y_a) - \beta(y_a - y_r) \) *is negative, and since A is positive,*

*it is always true, and A can be any positive amount*

\[
When \ y_a < y_e, \text{ since } -\beta(y_a - y_r) \text{ is always negative}
\]

*the term* \( S(y_e - y_a) - \beta(y_a - y_r) \) *can both be negative or positive*
So the restriction stays as: \( A > S(y_e - y_a) - \beta(y_a - y_r) \)

Therefore, in order to create the correct incentive for entrepreneurs who claim that their actual revenue for the particular month is lower than their projection, namely, by incentivizing the honest entrepreneurs to choose to be audited and receive minor penalty, while incentivizing the fraudulent entrepreneurs to not choose the audit option and report the \( y_a \) or \( y_e \), the audit fee must be such that:

\[
S(y_e - y_a) - \beta(y_a - y_r) < A < \frac{4}{3}S(y_e - y_a)
\]

In order to align this incentive structure, another component which the platform could freely set is the \( \beta \) for the punishing fee. Since \( \beta \) is easier to set than auditing fee, the platform should utilize this decision to create proper incentive. Even though \( y_a \) or \( y_r \) for each case are different, the platform can choose to set \( \beta \) to be sufficiently high to make sure that the above restriction holds in most cases.

**Case : \( y_a > y_e \)**

Now for the case when \( y_a > y_e \), the entrepreneur might have the incentive to report \( y_e \). In order to encourage entrepreneurs to accurately report actual revenue, the platform could offer the entrepreneur reward in the form of recognition on their profile page visible to investors, faster move to next investment size limit, as well as requiring the entrepreneur to pay only \( s*y_e + (s/2)\)\( (y_a-y_e) \) as opposed to \( s*y_a \). In other words, the platform would allow the entrepreneur who truthfully reports \( y_e \) when \( y_a > y_e \) to pay for the increment amount from \( y_e \) (or \( y_a-y_e \)) with the revenue sharing rate of \( s/2 \) or half of the original rate. This would provide the incentive for the entrepreneur to report actual revenue. For those entrepreneurs who hope to gain from this benefit by projecting artificially low revenue for that particular month, they would not be able to
successfully earn the benefit, because with low projections, the total amount of projects M that would be used to calculate the % revenue-sharing rate would be low, resulting in higher revenue-sharing rate for the whole investment duration of the entrepreneur. This would impose higher cost for the entrepreneur overall.

Even if the entrepreneurs choose to report $y_e$, the amount of revenue paid to the investors in that particular month would be the amount well-accepted by the investors, because that is the amount the investors had expected and had initially agreed to invest for.

**Case :** $y_a = y_e$

If the entrepreneur’s actual revenue is equal to projection, the entrepreneur might be incentivized to report lower than actual revenue, in order to pay a smaller amount to the investors. However, with the punishment function instituted for the case when $y_a < y_e$, and the need for auditing to appeal for $y_a$, which would reveal that the entrepreneur is indeed reporting false figure and impose significant cost to the entrepreneurs, the entrepreneur is incentivized to report the actual revenue figure.

6. **Analysis of strategies that an entrepreneur takes and the extent of moral hazard problem that results, given the described incentive structure in the contract**

As described in the auditing rule and reward-punishment section, these features would function to ensure that the entrepreneurs have the incentive to report accurate revenue figures and pay accurate revenue-sharing amount for each month, no matter what the relationship between $y_a$ and $y_e$ is. So the incentive structure works for all the cases : $y_a > y_e$, $y_a = y_e$, $y_a < y_e$. 

121
Please find the summary of entrepreneur’s decisions and payout matrix in each of these cases:

<table>
<thead>
<tr>
<th>Cases</th>
<th>Incentivized Report Decision</th>
<th>Payout by entrepreneur</th>
<th>Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>( y_a &gt; y_e )</td>
<td>( y_a ) (incentivized by reward)</td>
<td>( S y_e + \frac{S}{2}(y_a - y_e) )</td>
<td>Honesty recognition, faster move to next investment size</td>
</tr>
<tr>
<td>( y_a = y_e )</td>
<td>( y_e ) (still acceptable by investors)</td>
<td>( S y_e )</td>
<td></td>
</tr>
<tr>
<td>( y_r = y_a = y_e )</td>
<td>( S y_e )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( y_r = y_a &lt; y_e ) (honest intention)</td>
<td>Report ( y_a ) and audit, finds out ( y_a )</td>
<td>( S y_a + \frac{3}{4}A )</td>
<td>Platform takes care of ( \frac{1}{4}A )</td>
</tr>
<tr>
<td>( y_r &lt; y_e ) (fraudulent intention) ( y_a &lt; y_e ) or ( y_e &lt; y_a )</td>
<td>With significant prospective punishment if continue to audit: ( S y_a + A + \beta(y_a - y_r) ), eventually report ( y_e ) or ( y_a ) (most likely whichever is lower); so no audit</td>
<td>( S y_e )</td>
<td></td>
</tr>
</tbody>
</table>
Proof of perfect risk-sharing by revenue-sharing financing

Entrepreneur is assumed to be risk-averse

Investor is assumed to be risk-neutral

Let R be revenue of the entrepreneur, and R is random

\( P(R) = \) Payment the entrepreneur makes

\( U(R \text{-} P(R)) = \) Utility of the profit of the entrepreneur

Objective: Find payment scheme \( P(R) \) that maximizes lender’s payoff subject to the utility requirement of the entrepreneur

\[
\max_P E_R [P(R)] \text{ s.t. } E_R [U(R \text{-} P(R))] \geq X;
\]

\( X \) is the minimum utility requirement of the entrepreneur

Supposed \( R \) takes on discrete value with \( \Pr(R = r) \)

Lagrangian: 
\[
L = \sum_{r} P(R = r). \Pr(R = r) + \lambda \left[ \sum_{r} U(R \text{-} P(R)). \Pr(R = r) \right] \]

Point-wise differentiation w.r.t. \( P \) at one \( r \)

\[
\frac{\partial L}{\partial P} = \Pr(R = r) - \lambda U'(R \text{-} P(R)). \Pr(R = r) = 0
\]

\[
U'(R \text{-} P(R)) = \frac{\Pr(R = r)}{\lambda \Pr(R = r)} = \frac{1}{\lambda} > 0
\]

\( U \) is strictly concave (i.e. \( \log x \)), so \( U' = 1/x \)
\[ R - P(R) = (U')^{-1} \left( \frac{1}{\lambda} \right) \]

\[ P(R) = R - (U')^{-1} \left( \frac{1}{\lambda} \right) \]

Therefore, \( P(R) \) is not a constant, but a function of \( R \). More specifically, it is increasing in revenue.

For example: \( U = \log X \), \( P(R) = R - \frac{1}{\lambda} \)

The solution requires that \( R - P(R) \) is a constant, namely \( \frac{1}{\lambda} \), so this is the amount which solves the constraint that \( E_R [U [R - P(R)]] = X \).

This shows that there should be perfect risk sharing if the entrepreneur is risk averse and lender is risk neutral. The optimal financing plan is the one increasing in the revenue, rather than a fixed amount, because the fixed payment subjects the entrepreneur to extra risk. Revenue-percentage or the revenue-sharing financing model is one such financing plan.
SECTION V: ANALYSIS OF OTHER PLATFORM FEATURES

❖ Public and investors’ Perception of platform

It is easy to notice that the lending crowd in social lending platforms is not homogeneous in their motivations. For example, single focus on financial gains is exhibited in lenders on platforms such as Prosper and Zopa. However, this focus on financial gains is clearly not totally absent from other platforms either, especially in platforms which transfer to the lenders, the power to largely influence which borrowers to be granted funding and to set specific variables applied to their contracts and transactions. This feature is opposed to the case of Kiva, which is a kind of re-financing platforms, where the decision to fund in the first place was not with the participating lenders.

In Zidisha, on the other hand, the funding decision is with the lenders, and it operates without any intermediary. We can notice how lenders have recently become more active in posting inquiries about loan and business details, thereby possibly inclining towards the Zopa and Prosper direction, where lenders are much more careful in screening the borrower and in making their funding decision. This is because platform such as Zidisha and MyC4 have a higher degree of intervention through being able to grant or deny any entrepreneur’s venture’s funding requests. They are also able to extract some - albeit modest – return. These characteristics would situate the participating lenders into the group of ‘strategic philanthropists,’ whose main objective is to positively impact poor people’s lives through funding opportunity, while trying to extract some form of returns as well.

Many of the social lending participants are those who believe in the power of free market and the fact that an interventionist approach could yield a better result in the long run.
Even though Kiva is able to motivate part of the potential participating investors, others, while not expecting to gain substantial financial reward from the borrowers, still want to maintain their funds, thus requiring some return on their loans to compensate for the time value of money.

Realizing that this difference in monetary award could make a big difference in the quality of the investors’ entrepreneurs screening process, the Sasom platform targets the so-called “Strategic philanthropists,” whose self-declared philanthropic attitude only goes so far as rendering them willing to fund the entrepreneurs at their proposed rate.

We also welcome more philanthropic-focused investors, by making available such option as forgiving some or all of the investment amount to entrepreneurs if investors perceive that the entrepreneurs are encountering true difficulty in their economic condition.

Since Zidisha is an example of a platform whose target participants include both investors with pure philanthropic people and those who can be considered strategic philanthropists, while the platform seems to be able to increase their investor base over the years at a satisfying rate, it is Sasom’s objective to take on this approach, and aim for the public to perceive our platform as one which offers a 34 duality: being driven both by the willingness to help others and the return to be earned by social investors.

- **Gradual repayment, Contingent renewal, dynamic incentive**

Even though Sasom platform does not proclaim itself as microfinance institutions, due to the many differences inherent in our platform features, such as quasi-equity financing product and high investment amount relative to traditional microfinance, the platform actually includes many of the innovations and institutional designs in traditional microfinance.

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34 Van Damme, Sander (2011)
These include\textsuperscript{35} contingent renewal, which means the exclusion of defaulting borrowers from future access to loans, and dynamic incentives, which represent the provision for larger loans to borrowers who successfully repay. These are reflected in the investment size progression levels in Sasom and the award punishment rules.

Gradual repayment is another 'near-universal feature' found across microfinance institutions and across countries, which Sasom adopts. It refers to the fact that repayment of investments starts quite early, often before the project has yielded its full benefit. The repayments would involve quite small, but regular installments. Sasom directly imposes this by restricting both the amount of investment and the investment duration to be relatively short such as 6 months, and allows the entrepreneurs who successfully repaid the investments to extend the investments to further periods. This results in small but regular installments of repayment streams from the entrepreneurs.

\textsuperscript{35}Kurosaki, Khan, Ullah (2011)
**SECTION VI: PLATFORM FEATURE SUMMARY**

*Exhibit 4: Complementary table*

<table>
<thead>
<tr>
<th>Platform Features</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Legal Entity</td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2 Direct Peer-to-peer</td>
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<td>+</td>
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<td>+</td>
<td>+</td>
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</tr>
<tr>
<td>3 Revenue-sharing Product</td>
<td></td>
<td>+</td>
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<td>+</td>
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<tr>
<td>4 Communication Venue between Investor and Entrepreneur</td>
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<td>+</td>
<td>+</td>
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<td>5 Business Plan Submission</td>
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<tr>
<td>6 Higher Investment Ceiling</td>
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<td>Adverse selection</td>
<td>Moral Hazard</td>
<td>No Impact from too small ceiling</td>
<td>High funding cost (high interest rate)</td>
<td>No MFI in area</td>
<td>Preferential treatment and corrupted admin</td>
<td>Misalignment of Incentives (partner and platform)</td>
<td>Lack of Human Dev. Prog.</td>
<td>Potential unsustainability of platform (Limited Capital base)</td>
<td>Limited Funding for Target pop due to no collateral</td>
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SECTION VII: CONCLUSION

The “economic pyramid” represents the worrisome state of widespread global poverty and socio-economic inequality which, if left unattended and allowed to worsen, could potentially threaten to disrupt international equilibrium, harmony and peace, and ultimately the survival of humanity itself. Thus, through governmental agencies, philanthropic organizations, and social enterprises such as microfinance institutions, many attempts have been made to alleviate global poverty, and to destabilize the dreaded economic pyramid.

However, billions more of poor and low-income population at the base of the pyramid are still relatively neglected by the microfinance movement. Thailand is a country where private microfinance institutions have not taken roots as they have in other countries in the region, such as Indonesia and the Philippines, as the result of major interventions by the Thai government in the microfinance sector. Through the creation of Special Financial Institutions (SFIs), such as the Bank of Agriculture and Agricultural Cooperatives (BAAC) and the Government Savings Bank (GSB), and the creation of large-scale microfinance programs, such as the Village and Urban Revolving Funds (VRF) which cover nearly 80,000 villages and urban communities in Thailand, the Thai government has, in effect, become the largest microfinance provider in the country. Traditional MFIs trying to open shops in Thailand have found that they simply cannot compete with the government-subsidized MFIs in terms of interest rates, capital bases, and market penetrations.

Despite the presence of commercial banks and government-subsidized microfinance institutions, I have found, through my 2010 field investigations of the “Thai rural credit market”, that many low-income entrepreneurs do not have adequate access to the financial credit markets. They are in an awkward position where commercial banks consider them low-grade credit-risks.
while the governmental MFIs consider them a financial step above the banks’ target groups of really poor farmers. I was also surprised to learn that some of the entrepreneurial-minded villagers expressed strong interest in an equity-based financing option, similar to venture-capital in the US and other developed economies.

Motivated by the results of my field investigation, I have researched deeper into the domain of modern microfinance innovations. As a result, I have found that many features and services associated with modern microfinance in advanced economy can potentially be modified and incorporated into a new model appropriate for low-income entrepreneurs in developing countries. Specifically, I have found that the business model of an Internet-based, peer-to-peer microfinance platform, similar to Kiva’s, Prosper’s, and Zidisha’s, would be especially suitable and adaptable for the Thai microfinance market, with appropriate modifications to its features and financial products. Strategically thinking, such a platform would allow capital to flow directly from investors/lenders in capital-rich countries to entrepreneurs/borrowers in capital-scarce developing countries. Also taking a chapter from the Venture Capital communities of Silicon Valley, I am intrigued by the potential impact on the Thai microfinance landscape of an online, P2P microfinance platform which offers equity-based financing options. However, realizing that the financial infrastructure in Thailand is not yet ready for an equity-based financial product, I have settled for a quasi-equity-based financial product instead.

Hence, in this thesis I have proposed the design of a novel internet-based, peer-to-peer microfinance model offering revenue-sharing financial services to low-income entrepreneurs in Thailand. Such a business model offers many benefits of an equity-based model while overcoming implementation challenges that prevent widespread adoption of equity-based financing for several decades. From the standpoint of the microfinance operator, offering such a
quasi-equity-based financial product, instead of a debt-based financial product (loan), enables it to avoid direct competition with the governmental MFIs in term of interest rates and capital bases, as well as to circumvent the restrictive regulatory environment for a non-bank lending microfinance institution. From the viewpoint of an entrepreneurial client, the revenue-sharing contract offers him a better, more flexible way to manage his cash flow. And from the investor’s perspective, the new financial product allows him to earn a return on investment which is directly related to the performance of his client’s business.

However, there are also potential problems inherent in the revenue-sharing system. For instance, a dishonest entrepreneur might try to falsely report a revenue figure that is lower than the true revenue he receives, so that he would pay a smaller amount of revenue-sharing fees than he should. To guard against such fraudulent practice, operational measures which penalize dishonest conduct (e.g., banning from the platform) and appropriately reward honesty (e.g., larger funding limit for subsequent request) are designed and incorporated into the system. Such measures include the option to perform a financial audit on the business of the Client who reports revenues lower than estimated figures given in the Client’s Business Plan. However, because the result of an audit can be misled by the dishonest business operator, and because the cost of an audit can be prohibitive in relation to the nature and size of the problem, discretion should be duly taken in using such an option as a potential punishment for dishonest conduct by the client.

The Business Plan section in this paper offers operational details of the online, P2P, revenue-sharing financing model, while an in-depth discussions of how the model deals with the problems of Adverse Selection and Moral Hazard are also provided.

In the initial stage, the new microfinance model proposed in this thesis will be implemented to serve the financial needs of low-income entrepreneurs in Thailand. In a later
stage, the business model will be appropriately scaled and adapted for implementation in other countries with similar socio-economic landscape. Whether the designed model can achieve its intended financial and social impact on the Thai microfinance landscape is a subject to be studied and assessed in the future, after the actual launch of this novel internet-based, peer-to-peer, revenue-sharing microfinance model in Thailand.

The time is ripe for social entrepreneurs to design and create new, innovative and effective quasi-equity-based microfinance models with better, enhanced potential to help eradicate the whole spectrum of poverty at the base of the economic pyramid, thus contributing significantly to the creation of a better world for humanity to exist with equality, harmony, hope, dignity, sustainability and without hunger.

The great Pyramids of Egypt may stand to symbolize the history of human civilization, ingenuity and determination, but how we work to reshape the economic pyramid will determine the future of humanity.
SECTION VIII: BIBLIOGRAPHY


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