GREEN NEST

Investments for social good

NELSON HONG MING TSENG

THESIS PAPER 2016

TABLE OF CONTENTS

Scope

background, core characteristics of impact investing
problem statement, why is investment important?
target, mission, what Green Nest provides

How Green Nest Works

motivation, what is Impact Investment,
choose products, read fund's profile

Process

define the Role, understand investment mental model
assumption and research prototype
feedback and Learning, intervention, voice of tone

Result

Next step

GREEN NEST
Investments for social good

A financial service for newly employed Americans to invest in impact investment.

Scoop

Background

Impact investments are investments made into companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return. Impact investments target a range of returns from below market to market rate, depending upon the circumstances.

The growing impact investment market provides capital to address the world's most pressing problems such as sustainable agriculture, clean technology, microfinance, and affordable housing, healthcare and education for low-income society.

## Core characteristics of impact investing

Impact investment is not Socially responsible investing, which typically avoids investments in bad companies. Impact investing goes beyond a passive screen by actively seeking to invest in companies have a positive social or environmental impact.

Impact investment is not a donation. Impact investments are expected to generate a financial return. Now, impact investment's money return rate is better than retirement funds. There is no trade-off, 79% of impact investments achieve competitive money return because impact investment only puts money in promising companies doing social good. Impact investment looks for high-potential entrepreneurs addressing large market opportunities with business models that can scale – the same criteria as all venture capital investors.

Why is investment important?

Investments have the power to shape our world. Most of the people know that investment is creating problems. The global financial crisis had set off a chain of events that had the adverse impact for people around the world. This was not simply a financial crisis, but a morality crisis. Mutual funds invested1,973,312,960 dollars in 3 American public gun companies in 2015. There are 1400000 gun violence deaths and injuries in the USA since Columbine incident. Well… most of people don't invest in financial products for social good because the revenue return is not competitive. Now, impact investment changes the game rule. People can do some social good and have competitive revenue return at the same time. It empowers people to make ethical choices between right and wrong.
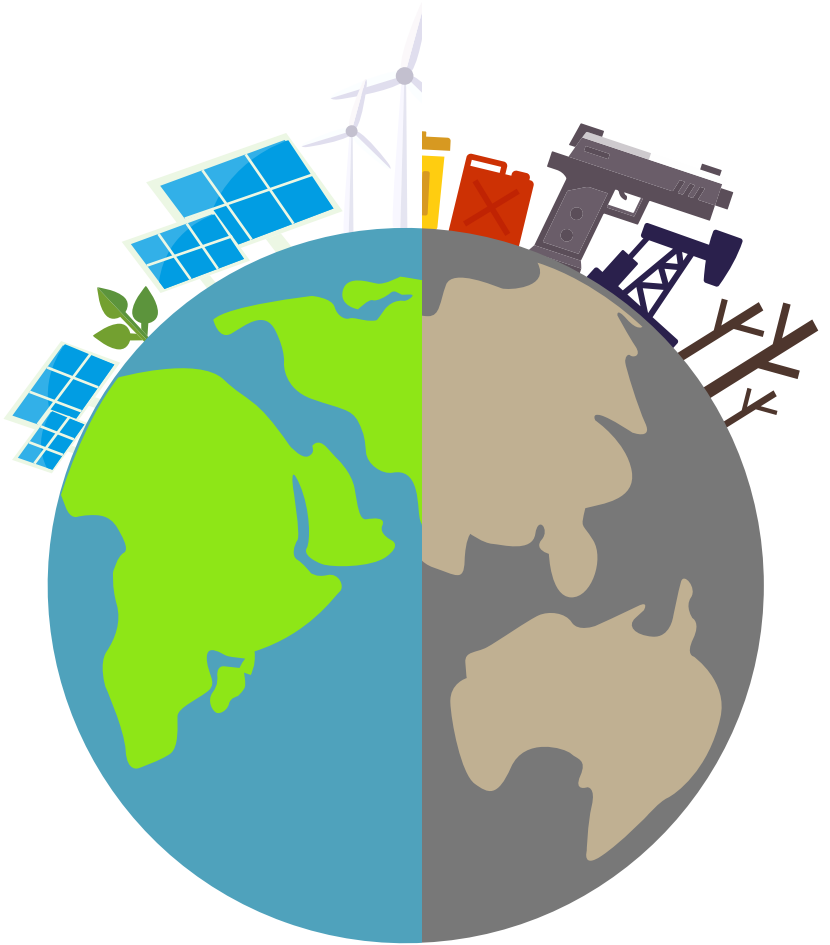
Problem statement

Impact investing market is still relatively new, professional bankers are overall optimistic about its development and expect increased scale and efficiency in the future. However, most of the non-financial people never heard about impact investment. They will do some research on impact investment for better understanding. However, existing impact investment information isn't accessible and understandable to non-financial people. Non-financial people get cold feet about numbers and jargon. Finally, they give up.

Target

To create a tool for non-financial people to invest in impact investment products.

Mission

Green Nest is a financial service for just employed Americans to raise awareness of impact investment and satisfy research needs. They will feel the confidence to make a financial decision using Green Nest.

What Green Nest provides

Green Nest offers interactive website and webinar service to understand what impact investment is. It pushes impact investment fund list by interactive fund finder and recommendation from your colleagues. Also, it provides impact investment fund's profile with adequate financial information and social value return metrics.

How Green Nest works

The goal of Green Nest is to raise awareness of impact investment and satisfy research needs for impact investment.It has 4 steps: motivation, what is Impact Investment, choose products,and read fund's profile.

Motivation

On this page, Green Nest will tell users what impact investment is. This interactive tutorial meets some design criteria. Information should be easy & simple, and the tone of voice sounds like a friend taking to you. For example, I know learning investment is so hard. Can't blame you. Just let me help you out. Instead of I am your financial manager, you can't learn this stuff well, it's too hard to you. Just follow my instruction otherwise you will lose money.

What is impact investment?

When newly employed people land on their new job, they got an email from a HR officer, and users can join webinar service or click the link to land on GreenNest.

1 Learning investment... Yeah, I know. It's boring, can't blame you. What if our financial advisor, John, helps you out.

Hi, I am John. Nice to meet you! Impact investment is to put money into a fund, and it generates money and social value at the same time.

Therefore, you need to focus on two things: **money return** and **social value return**.

Impact Investment

2 Money returns from Impact investment

Now, impact investment's money return rate is better than retirement funds.

There is no trade-off, 79% of impact investments achieve competitive money return because impact investment only puts money in promising companies doing social good.
-Rockefeller Foundation

Impact Investment

3 Social value returns from Impact investment

Well, social values are different from every single person, it depends on how you define it. Generally, low-cost maternity hospitals or clean energy manufacturing are common examples.

Social value is from a broad range of activity from microfinance and community development finance to investments in renewable energy, global health, education and international development.

4 GreenVest pictures how your money will generate social impact

In GreenVest, you can clearly see what social value generated from your investment instead of numbers and difficult financial languages.

Averted **560** metric tons of greenhouse

CO₂

Choose

Green Nest provides two ways to choose products.

a. fund finder

First way is through the "fund finder", users get recommendation by answering simple questions such as how much money you wanna put in, what's your risk endurance and what social issues you care about.
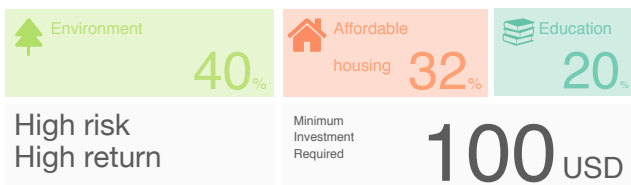

b. by colleagues

Second way is just be a copycat. Green Nest pushes a fund list based on purchase history from her colleagues. She chose the same products as her colleagues without any research. It's simple and easy.
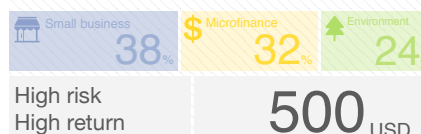
Suggestions from your colleagues

No research. Just follow your colleagues. Green Nest narrows down the Top 10 by the purchase history of your colleagues.
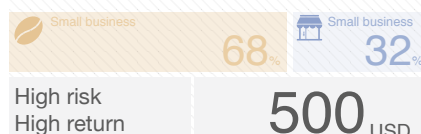
Root Community
Investment Fund

Environment 40%	Affordable housing 32%	Education 20%
High risk High return	Minimum Investment Required	100 USD

Blue Stone
Investment Fund

Small business 38%	Microfinance 32%	Environment 24%
High risk High return		500 USD

Coffee Good
Investment Fund

Small business 68%	Small business 32%
High risk High return	500 USD

Green Nest shows what social issues they invest in. It provides enough financial information,such as risk appetite, current price, performance,and assets size. Also, through this interactive map. Susan will know stories, and social value metrics from this fund. For example, how much clean energy is generated and how much greenhouse is averted from this company.

GREEN NEST
Investments for social good

What is impact investment   Fund Finder   Fund Profile   About

Root Community
Investment Fund

The fund is investing in:

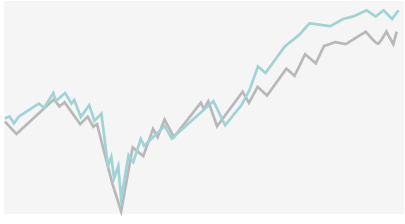| Environment	Affordable housing	Education	Else
40%	32%	20%	8%

Overview:

By investing on Vested.org you are joining a community of more than 15,000 people who have collectively invested over $1 billion for social good through the Community Investment Note. These investments are administered by Calvert Social Investment Foundation, a leading social investment organization with a 20 year history of developing innovative impact investing initiatives. When you select a specific Community Investment Note, your dollars are pooled together with other social investors to support organizations and projects that have met rigorous underwriting standards and social performance requirements.

Risk appetite

High risk
High return

Current Price

$14.25 ▲

Growth of 10K

AAA USD:24,298.41
S&P 500TR

2012   2014   2016

Performance

Total Return (%)	1Y	3Y	5Y
	2.26% APY	11.66% APY	13.45% APY

Total Assets

$ 100 - 249MM

Min. Investment

$ 500 USD

Fee

$ 30 USD

📄 Fund Prospectus

Social value is generated by investee Companies Map
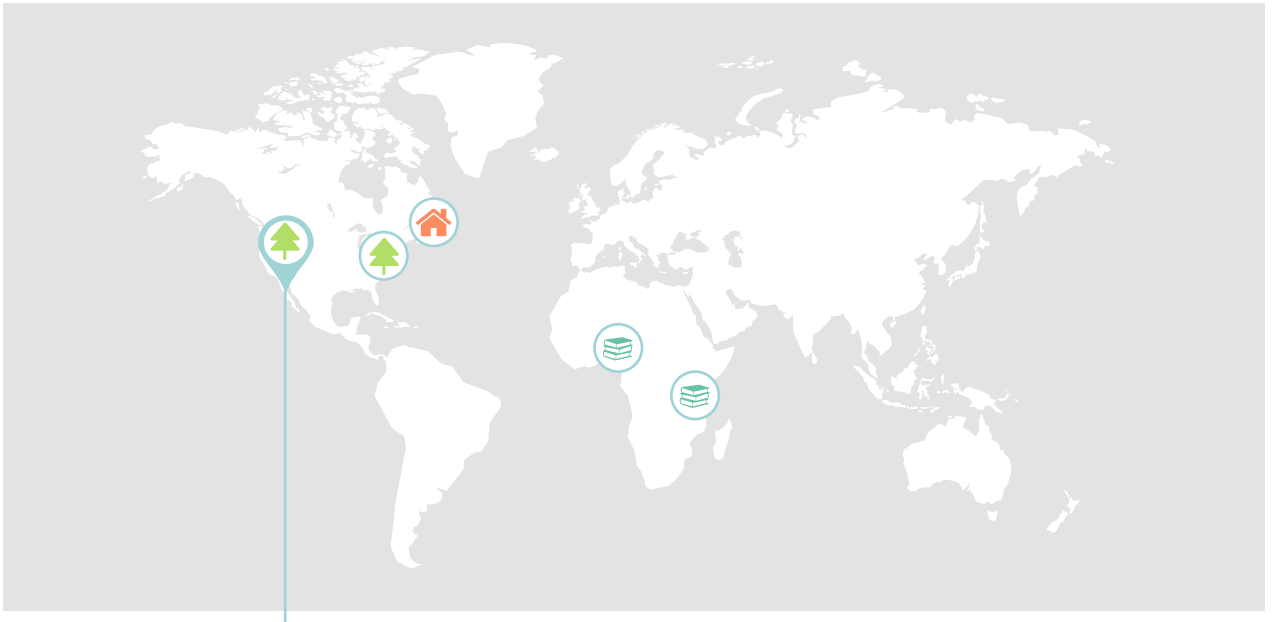
ARTISAN ELECTRIC

A green electrical contractor specializing in solar energy systems

Artisan Electric aims to educate their community on clean, efficient energy and create practical solutions for residential and commercial clients to go green.

| Social value | Story |

Averted **560** metric tons of greenhouse

CO_2

360   560
2014   2015

Conserved **5188** 5188 BTUs of energy

2200   5188
2014   2015
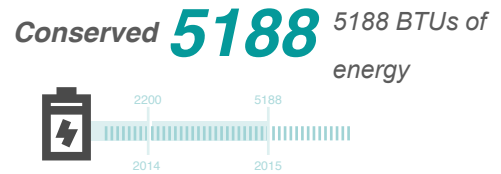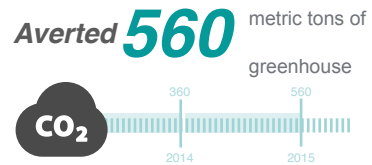
Invest

Social value validated by **GIIRS** RATINGS & ANALYTICS for Impact Investing

Investment Note

Prospectus

Process

Define the Role in impact investment ecosystem

I attended a family foundation financial meeting on last November. The foundation owner asked the fund manager to demonstrate impact investment products. However, the fund manager didn't do his homework. He used same holdings of old funds. He just changed the name of the old fund and gave us a boring lesson to know what is impact investment. It's the first time I saw how financial manager window-dressed a transitional mutual fund into impact investment fund. I decided my target user is non-financial people. I want to create a service to teach them what impact investment is.

This figure showed the financial manager window-dressed S&P into sustainable investment by putting on some social value buzz words and overall figures instead of specific social value metrics and related investees companies. Of course, they didn't mention how much money from S&P put into sin stocks that are creating many problems.

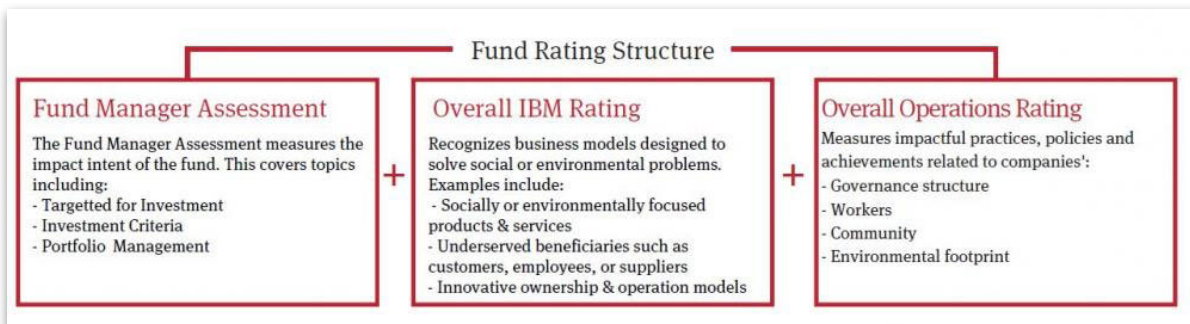### Our Socially Innovative Investing Capabilities

	Socially Innovative Investing Strategy (S2I)	Women & Girls Equality Strategy (WGES)	Environmental Stewardship & Sustainability Portfolio (E2S)	Religious Voice & Values Portfolio (R2V)	Human Rights & Recognition Portfolio (H2R)
1. Universe	S&P 500/S&P 1500	S&P 1500	S&P 1500	S&P 1500	S&P 1500
2. Screen	S2I Quantitative Screen • 46 Factors • 400 data points Environmental Stewardship Human Capital Engagement Corporate Citizenship	Human Capital Engagement Screen • 15 factors • 40 data points Policies on pay equity across genders, females/minorities represented in management, companies positioned to take advantage of the Womenomics Theme, etc.	E2S Environmental Screen • 28 Factors • 100 data points Policies on energy efficiency, greenhouse gas emissions, use of recyclables (renewable inputs & packaging), etc.	R2V Multi-Factor Screen Leveraging directives from the counsel of Bishops on issues relating to church practice, philosophy and doctrine.	Human Rights Screen Policies on same-sex or LGBT equal opportunities, diversity and inclusion best practices, leveraging external data sources utilizing Corporate Equality Index.
3. Fundamental Evaluation	Merrill Lynch Equity Research Fundamental Review	Merrill Lynch Equity Research Fundamental Review	Merrill Lynch Equity Research Fundamental Review	Merrill Lynch Equity Research Fundamental Review	Merrill Lynch Equity Research Fundamental Review
4. Construction	Sector Neutral (Optimized)	Sector Neutral (Optimized)	Sector Neutral (Optimized)	Sector Neutral (Optimized)	Sector Neutral (Optimized)
5. Constraints	Optimized with a 5% position limit	Optimized with a 5% position limit	Optimized with a 5% position limit	Optimized with a 5% position limit	Optimized with a 5% position limit
6. Result Equity portfolio of 30-80 stocks	The resulting portfolio consists of equities that exhibit the qualities mentioned in the channels above, and are investment opportunities believed to be appropriate from a valuation/ fundamental standpoint by U.S. Trust portfolio managers in conjunction with Merrill Lynch Equity Research.				

I joined GIIRS' webinars on Last December. GIIRS is a 3rd party certification organization of impact investment. The cost of getting the certification is not cheap, and it's from 3500 to 7500 USD per year. Also, the expensive fee is creating the additional burden to good companies. Most non-financial people never heard GIIN and GIIRS, and they don't take GIIRS score as an important criterion.

Fund Rating Structure

Fund Manager Assessment

The Fund Manager Assessment measures the impact intent of the fund. This covers topics including:
- Targetted for Investment
- Investment Criteria
- Portfolio Management

+

Overall IBM Rating

Recognizes business models designed to solve social or environmental problems. Examples include:
- Socially or environmentally focused products & services
- Underserved beneficiaries such as customers, employees, or suppliers
- Innovative ownership & operation models

+

Overall Operations Rating

Measures impactful practices, policies and achievements related to companies':
- Governance structure
- Workers
- Community
- Environmental footprint

GIIRS Fund Rating Structure

Understand investment mental model

I discovered investment mental model (fig) by ten informal interviews, that is self-evaluation, choose products, and effective comparison. I also confirmed that most of the non-financial people never heard impact investment.
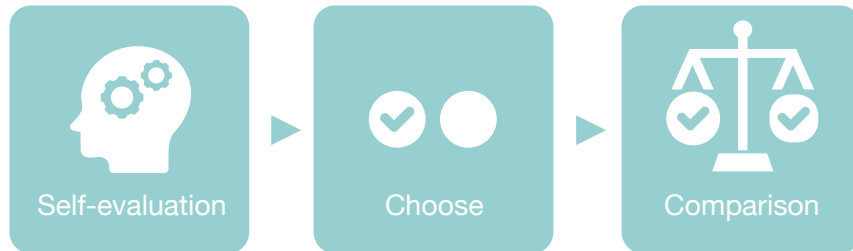
First assumption and research prototype
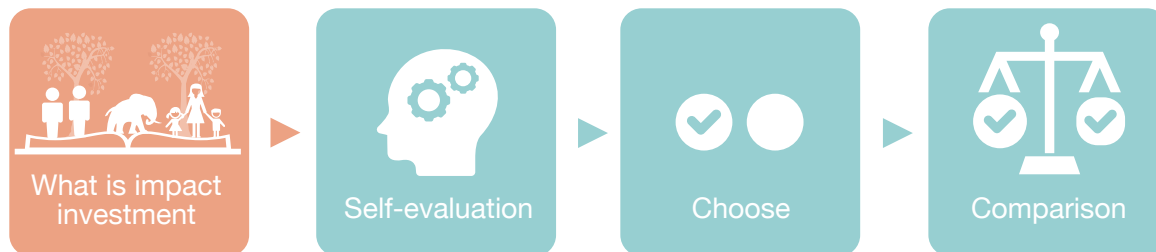
My initial assumption is to help non-financial people to learn what impact investment is. I created a learning guide for impact investment, and this guide is to teach them how to make financial decisions by self-evaluation, narrowing down options, and comparing different products.

Feedback

In this guide, I teach users using GIIRS score to compare different products. GIIRS is a 3rd party certification for impact investment. I thought this score helps them to make decision. However, most of users don't believe this score. Some users said they preferred to see some stories and related metrics instead of scores. I understand the importance of stories and social value metrics. The service will standby general public to make sure social value generated from investment can be measured and understandable.

There is feedback from Susan "I don't want to learn. I just want to invest some good products. This score just a score. It's hard for me to project social impact. Story sounds great, and I want to know more about how many people are being helped by my money." Scores are hard for people to picture what impact investment looks like. Especially, some people don't trust and motivate by scores from large banks. My Users just want to invest in financial products, and they don't want to spend time and energy to learn.

INVEST YOUR FUTURE, REWARD OUR FUTURE

SPECTRUM OF FINANCIAL SOCIAL GOOD

Tranditaionl investment / Socially Responsible Investing(SRI)	Impact Investment	Venture Philantrophy
Revenue return > Social return	Revenue return = Social return	Revenue return < Social return

5 MINUTES
TO KNOW IMPACT INVESTMENT
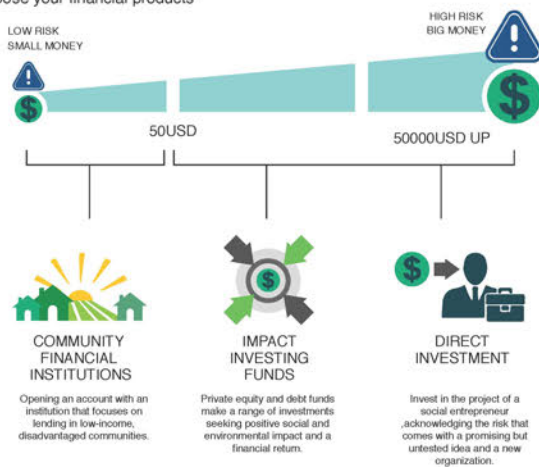
1 WHAT IS IMPACT INVESTMENT?

An investment approach intentionally seeking to create both financial return and positive social impact.
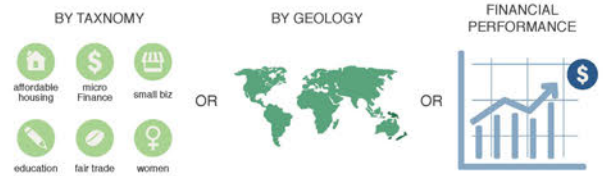
REVENUE RETURN + SOCIAL VALUE RETURN (ESG RETURN)

2 WHAT KINDS OF FINANCIAL PRODUCTS YOU CHOOSE

How much money you put in can help you to choose your financial products

LOW RISK SMALL MONEY

HIGH RISK BIG MONEY

50USD — 50000USD UP

COMMUNITY FINANCIAL INSTITUTIONS
Opening an account with an institution that focuses on lending in low-income, disadvantaged communities.

IMPACT INVESTING FUNDS
Private equity and debt funds make a range of investments seeking positive social and environmental impact and a financial return.

DIRECT INVESTMENT
Invest in the project of a social entrepreneur, acknowledging the risk that comes with a promising but untested idea and a new organization.

3 NARROW DOWN YOUR OPTIONS BY

BY TAXNOMY
- affordable housing
- micro Finance
- small biz
- education
- fair trade
- women

OR

BY GEOLOGY

OR

FINANCIAL PERFORMANCE

4 COMPARE YOUR OPTIONS
(DIFFERENT FROM YOUR FINANCIAL PRODUCTS)

COMMUNITY FINANCIAL INSTITUTIONS
Ranking systems based on each platform providers

IMPACT INVESTING FUNDS
1. Scoring and ranking systems from GIIRS

Global Impact Investing Rating System creates a standardized scoring system for investors to benchmark and compare the social and environment performance of various funds and companies

Compare financial return

U.S.-focused impact investing funds under $100 million returned a 13.1% pooled IRR(Internal Rate Of Return) compared to a 3.6% IRR for comparative funds.

Compare social return

GIIRS — Health First Investors

A GIIRS Rating is comprised of a Fund Manager Assessment Rating and two Investment Roll-Up Ratings: an Overall Impact Business Model (IBM) Rating and an Overall Operations Rating.

GIIRS IMPACT RATING
- Fund Manager Assessment Rating
- Overall Impact Business Model (IBM)
- Overall Operations Rating

DIRECT INVESTMENT
2. Yearbook reports from product providers

A V.S B

Pros

Community Financial Institutions	Impact Investing Funds	Direct Investment
-Show stories -Show social value metrics	-Have a ranking system for easy comparision -GIIR ranking system is standard -Show finanical return	-Show stories -Show social value metrics -Show finanical return

Cons

Community Financial Institutions	Impact Investing Funds	Direct Investment
-Social value metrics are not standard. -No show financial return	-Social vlaue metrics turn into scores. -No stories	-They may not use GIIRS standard, and hard to compare -Not easy accessible

First assumption and research prototype

Second assumption and research prototype
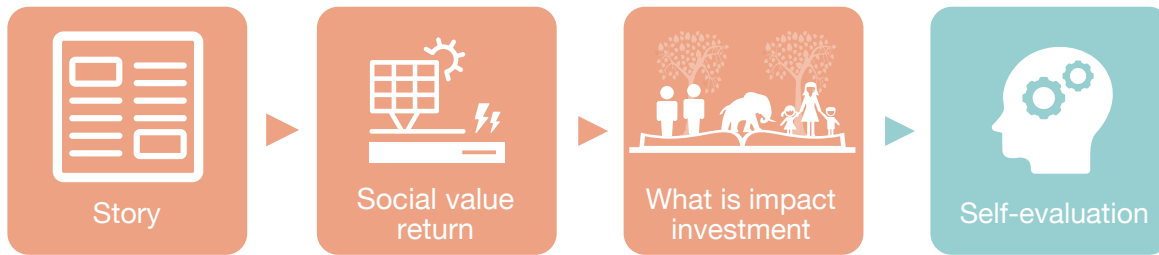
Feedback

I learned that people increased their interests by stories and related metrics, but they still need enough financial information to make their decision. I always asked a question in interviews,"Will you buy this fund?" Some people won't purchase the fund because of low revenue return. This feedback redefined my role. As a designer, it's hard to influence the revenue return of the fund. However, a service that can satisfy user's research needs is to help them make financial decision effectively. Also, I found out some of my users automatically ignore all financial information in their daily life. I need to find a way to deliver my service to them.

Intervention

I found out some of my users automatically ignore all financial information in their daily life. I need to find a way to deliver this service to them. Through interviews and research, I discovered that there is a moment people have the strong incentive and environment to deal their financial issue. That is people land on their new job.

The voice of tone

In the research process, I read many difficult things to understand impact investment. It's hard for me to turn a complicated concept into simple words. I take a suggestion from Tina, and I analyzed a financial service called Digit to learn how to describe complicated problems by really simple words. I used cold and hot to describe the existing problems in impact investment.

Design criteria for implementation

-I choosed green-blue color for evading over-used blue and green.
-Cute figures keep the voice of tone sounds like a friend.
-Copycat is a new way to take financial design without research.
-Fund's profile looks different from a traditional profile, it includes social and financial information for
 investment decision.

Result

Green Nest through two weeks implementation:

75% of testers understand what impact investment is.
70% of testers feel the confidence to make the decision based on fund profile from GreenNest.

I got positive feedback from Shuna, and she said: "It's really beautiful, and all information is easy to read, it's far better than traditional fund profile."Also, from Eddie Tseng "Yeah, this fund is real, and I want to invest in it if this service is online."

The next step
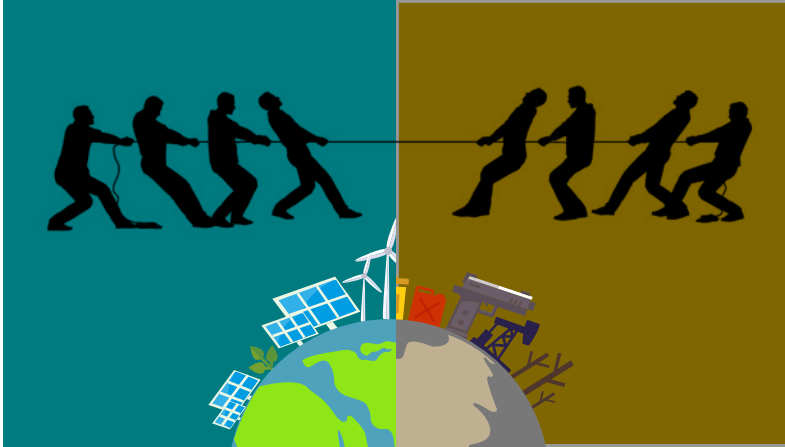
In near future, impact investment will be a competitive financial product. Green Nest will be a role standby general public to make sure social value generated from investment can be measured and understandable. Remember, Investment can solve problems, but also can create problems. It's tug of war. GreenNest will stand the side of solving problems. You have the power to choose.

I will create a interactive prototype and pitch GreenNest to NerdWallet. Nerd Wallet is a financial startup providing personal financial education service to large companies. They offer traditional fund education and products, but it doesn't include impact investment. Green Nest can be NerdWallet's partner to cover their unmet needs. Also, I am willing to join different financial related projects such as financial empowerment.

Special thanks to

Eddie Tseng, Yulia Oleinik, Katell Le Goulven,
Nima Hassan Kanyare, Evan Wu, Yi-Haur Lin, Shuna Chen, Kevin Chan, Gae Savannah,
Xueying Cheng, Lydia Li-Te Lin

My school team

Cheryl Heller, Tina Park, Megan Fath,
Archie Lee Coates IV, Jeffrey Franklin