



ADVANCES IN FINANCIAL TECHNOLOGY

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Write introduction to University Course in Financial Technology

OpenAI ChatGPT



First Lecture

Short Intro

- FinTech
- Course Content
- Future opportunities in FinTech

Case – Embedded Finance

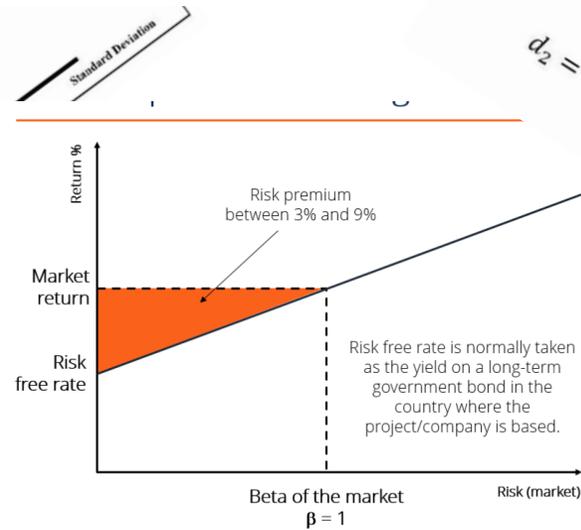
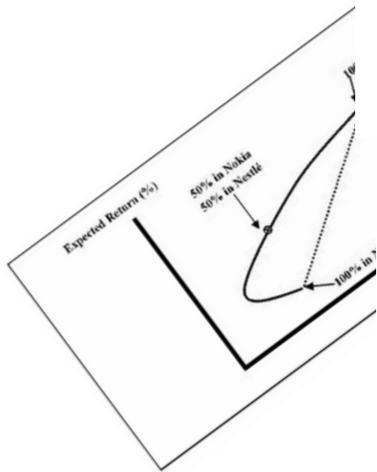
- Introduction by Heikki Rautila, Head of OP Lab
- Expectations from Case Work

Syllabus and course work

- Case
- Book Summary
- Quest Lecture Summaries

Finance

$$\begin{aligned}
 F_1 &= S_0 \times [1 + (R_E - R_{US})] \\
 &= £0.50 \times (1 + (.05) \\
 &= £.475
 \end{aligned}$$



Donde d_1 y d_2 son tal que:

$$C = S \cdot N(d_1) - X \cdot e^{-r \cdot T} \cdot N(d_2)$$

$$d_1 = \frac{\ln \frac{S}{X} + \left[r + \frac{\sigma^2}{2} \right] \cdot T}{\sigma \cdot \sqrt{T}}$$

$$d_2 = \frac{\ln \frac{S}{X} + \left[r - \frac{\sigma^2}{2} \right] \cdot T}{\sigma \cdot \sqrt{T}} = d_1 - \sigma \cdot \sqrt{T}$$

FinTech -

A B C D

FinTach

A - Artificial Intelligence

B - Blockchain

C- Cloud

D - Data

E – Efficiency,,, Embedded Finance

F - Futuristic Vision – First Principle Thinking

G – Globalization

What is this course

For those wishing to explore FinTech: ·

How new technologies are disrupting the financial services industry ·

Business models, products, applications and customer user interface ·

AI, Deep learning, Blockchain Technology and Open API's ·

Competitive Landscape of FinTech Startups & Big Tech vs. Big Finance

What is FinTech

Technology-enabled innovation in financial services associated with new business models, applications, processes or products, all of which have a material effect ...



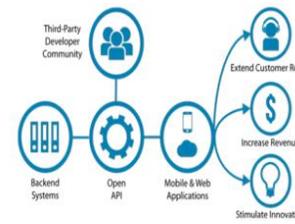
AI & ML



Blockchain



**Natural Language
Processing**



Open API



Biometrics



Chatbots



Cloud



**Robotic Process
Automation**

Nordic Fintech

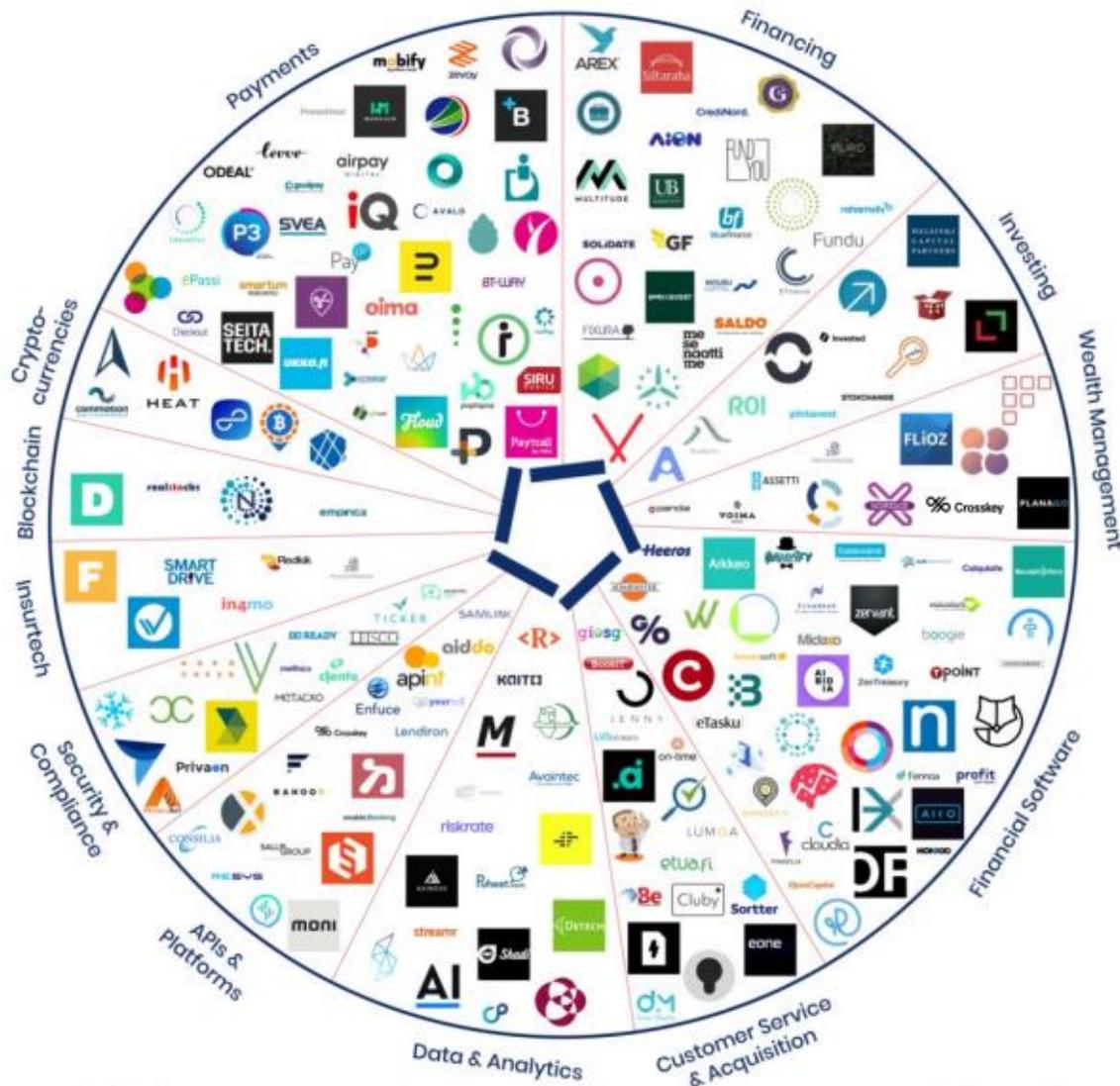
tieto *EVRY*



digia



Fintech Finland



Finnish Fintech Landscape by Fintech Farm © Version 2.5 December 2021 www.helsinkifintech.fi

Finland has roughly 200 Fintech companies

The revenue of the fintech industry was over 1.2 billion euros in 2020

Investments made were over 600 million euros.

One of the strongest areas in Finland are financial software, back-end technologies and financing and payments.

Source: Fintech Farm with their permission

Big Traditional Players



Payments, Credit and Lending

Big Tech



Payment Unicorns



Credit Unicorns



Futute Financial Industry Professionals

Data Scientist

Machine Learning Specialist

Experience Designer/Storyteller

Behavioural Psychologist

Blockchain Integrator

Compliance and Risk Programmer

Community Advocate

Identity Broker

Syllabus – Case - Papers

Course Content

After the course student have better understanding in Financial Technology Industry and better capabilities to work in FinTech startups and technology driven assignments in banking, insurance, and investment management industry.

Course content

- Digital transformation of Financial Services Industry
- Emerging technologies in Financial Services Industry
- Fintech (financial industry) regulation
- Responsible Innovation
- Academic research in Fintech

Case: Way Working

Groups preassigned: Diversity

Week 1-2: develop ideas who/what companies could provide financial services (banking, credit, payment, investments, insurance, pension...)

- Why, access to customers, large customer base
- Existing technology platform, mobile....
- How financial services could support their current business, financial benefits,,,,

Week 3-4: Start thinking how regulation, different technologies etc. could support or limit above opportunities

Week 5-(6): Prepare final presentation, rehearse presentation and divide roles for group members. Prepare for questions from the other students and OP Lab people

Case: First Principle Thinking

Note: this should not be detailed feasibility study with in detailed market study nor technology plan in detail. The purpose is the promote “First Principle Thinking” in the line Elon Musk has done with Tesla car and paypal or Apple has done with touchphone. Do not limit to improve existing try to think something undoable new! Keep it at the high-level.

Case: Deliveries

There will be case assignments to be presented on the day of the respective student-led case sessions 30.5.2023 and 1.6.2023. Deadline for all written case presentations (pdf document) will be 28.5.2023 regardless of day group is presenting orally their case results. Expected deliveries are as follows:

- Written report as described later in pdf format. Case reports (presentable version in .pdf) must be submitted on MyCourses by 11:45 (sharp!) on the due date
- Oral presentation as assigned later for each group in the scheduled course meeting times on 30.5.2023 and 1.6.2023. It is expected that presentation is supported by Power point presentation which should be submitted on MyCourses prior presentation time. It is also expected that everyone in the group will contribute to actual presentation. Length of the presentation will be defined later as we know ow many groups we will have in total
- The actual results and presentation will be graded by instructor. In addition group members are expected to provide valuation of contribution of each member into group work. OP Lab representatives read reports and follow presentations based on which they also provide feedback.

Case: Whitepaper

Content

- 1) What do you want to achieve
- 2) To whom your solution idea would be relevant and how it would help them
- 3) What are the problems you want to solve
- 4) What are the possible obstacles
- 5) Step by step solution how to resolve above (identify means, technologies and solutions but remember feasibility study, technology details etc. are not needed)
- 6) Identify and give examples examples how real companies could provide embedded finance to solve these problems

Case: Presentation

Case presentation will be 10-15 minutes (depending on number of groups). For the presentation prepare Powerpoint presentation and divide presentation so that all group members will participate. Presentation format is free but all presentations and feedback are as follows.

- 1) Group presentation 10-15 minutes
- 2) Instructor and OP Lab feedback and questions 5 minutes
- 3) Questions and feedback from audience up to 5 minutes

Quest Lectures. Term-papers

Thursday, 4 May, 14:15 » 16:00 U006 **High Performance Computing, Insurance, Timo Salminen, Fennia**

Wednesday, 17 May, 10:15 » 12:00 U006 ??? **Cyber security, Mikko Hyppönen, WithSecure**

FinTech Industry and companies, Janne Salminen Helsinki
Fintech Farm

Books

1. Fintech entrepreneurship
 - a. FinTech Founders: Inspiring Tales from the Entrepreneurs that are Changing Finance By Agustín Rubini and Susane Chisti **or**
 - b. Fintech, Small Business & the American Dream: How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity by Karen G. Mills
2. Emerging technologies and regulation
 - a. **Bank 4.0: Banking Everywhere, Never at a Bank by Brett King or**
 - b. Blockchain Bubble or Revolution: The Future of Bitcoin, Blockchains, and Cryptocurrencies by Neel Mehta, Aditya Agesha, and Parth Detroja **or**
 - c. A Guide to Financial Regulation for Fintech Entrepreneurs by Stephan Loech
3. Selected academic articles (see samples with good literature reviews below)

Book Summary

Bank 4.0: Banking Everywhere, Never at a Bank by Brett King

See details in Instruction document

15.5.2023 at 11:45

Schedule

Time	Place	Title
Tuesday, 25 April, 10:15 » 12:00	U006	Introduction and Assignments- Embedded Finance
Thursday, 27 April, 14:15 » 16:00	U006	Asset management
Tuesday, 2 May, 10:15 » 12:00	U006	Banking
Thursday, 4 May, 14:15 » 16:00	U006	HPC & RegTech
Tuesday, 9 May, 10:15 » 12:00	U006	AI / Blockchain FinTech Industry
Thursday, 11 May, 14:15 » 16:00	U006	Nordic FinTech Forum, Open access to conference
Tuesday, 16 May, 10:15 » 12:00	U006	Insurance
Wednesday, 17 May, 10:15 » 12:00	U006	Cyber security
Tuesday, 23 May, 10:15 » 12:00	U006	AI / Blockchain FinTech Industry
Thursday, 25 May, 14:15 » 16:00	U006	
Tuesday, 30 May, 10:15 » 12:00	U006	Case day 1
Thursday, 1 June, 14:15 » 16:00	U006	Case day 2

10:00 – 12.15
14.00 – 16.15