Syllabus

Banking IT and Fintech – Bank to the Future

- **Instructor:** Szabolcs Szalay; szalay.szabolcs@bcg.com; +36303322421
- **Credits:** 2
- **Term:** 2017-2018
- **Course level:** Elective, MA/MSc
- **Prerequisites:** Basic understanding of banking business and generic IT terminology

Course description

Banks today are primarily IT companies, at least from an operational perspective. Many of the leading European banks has been developing their IT infrastructure/applications over decades and most of them struggle with the underlying complexity and cost. Increasing demand from customers for digitization, novel technologies and the push towards increased cost-efficiency does not make COOs and CIOs life easy.

This module introduces students to the various dimensions of banking IT operating model: infrastructure, application and data landscape, organization, business-IT interface, and key IT processes as well as the major challenges arising from the technology native FinTech world.

In the process, you will gain critical new insight into the operational problems that today's banks face and what are the typical responses to those. To highlight the practical relevance of the module materials, we will discuss case examples throughout the module.

Understanding the problems covered in the module will be helpful to everyone seeking a career in banking, on either the business/analytics or the operations /IT side

Learning outcomes

Students will become familiar with the key components of banking IT hardware and software infrastructure, big data/advanced analytics use cases and IT governance and organization challenges. Furthermore, they gain insight in which way and in which part of the value chain the FinTechs are challenging the incumbents, and/or how they can cooperate with established banks. From our guest speaker they can learn the bumpy road of building a FinTech in Hungary.

The course is primarily teamwork based. The students will improve their innovative thinking and presentation skills, participating in an agile masterclass, and practice their fine motor skills by working with Lego bricks ☺.

Reading list

There is no pre-read requirement. Studies/articles supporting the course will be uploaded to Moodle ahead of the course, and can be used for future reference.

Assessment

Final exam (<u>group</u> case solution)   50 points
Class presentation   25 points
Class participation   <u>25 points</u>
Maximum total   100 points

Final exam (group case solution)

The exam will be 2-2.5 hour long, and it will be the last module of the course (on 9th December 2017). Students, working in groups are required to submit 4-5 slides summary findings based on a complex case study, utilizing the topics covered during the course. Furthermore, they have to present their major findings in five minutes to the instructor.

Class presentation

In the first seminar, we form case-teams, each with 3-4 students. Each team will have a chance to present at least two assignments and facilitate the class discussion about their findings.

Class participation

Individual grades are also dependent on the activity of the students', how actively they contribute to the class discussions and/or taking their fair share from the group exercises.

Course schedule and materials for each session

Day 1 – 24th November (Friday)

1) *Bank of the past vs Bank to the future:* Set the stage through discussing the core purpose and activities of commercial banks and highlight the importance of IT in today's and tomorrow's banking operations – show that modern banks are primarily IT companies.

2) *Hardware – software architecture:* Understand the typical banking hardware landscape (data center, servers, cloud offerings, network, end-user devices) and software architecture building blocks (front- and back-end, channels, enterprise tools, security, integration layers). Discuss the changing nature of banking systems and the ever-increasing digitization challenges.

Day 2 – 25th November (Saturday)

3) *FinTechs:* Introduce the diverse universe of FinTechs and deep-dive in those areas, which are on top of the agenda of banking CxOs: overall landscape, and deep dives in blockchain and digital currencies, Peer-to-peer lending, Open Banking, AI and Robotic Process Automation

4) *Learn from a FinTech practitioner:* understand the journey and the key challenges of starting, building and operating a (small but growing) FinTech in Hungary from our guest speaker

Day 3 – 8th December (Friday)

5) *End-to-end customer journey digitization:* Introduce the concept of e2e journeys, highlight which are the most important ones in retail banking and let the student experience through an interactive exercise the basics of re-imagining a customer journey.

Day 4 – 9th December (Saturday)

6) *Data bank:* The overarching role of data in banks; data governance and privacy challenges; role of big data and the most typical use cases

7) *Future proof IT Organization:* Introduce contemporary movements in IT org transformations (e.g. biz-dev-ops, merger with business functions, organizing eco-systems); discuss hiring challenges and type of profiles required in modern banks. Students participate in an agile masterclass to illustrate the key differences vs. the traditional development approaches.

8) *Exam:* Work in teams to assess the key challenges of the IT function of a bank based on a comprehensive assessment (case study), develop improvement recommendations utilizing the lessons learnt and present the findings and engage in short Q&A with the Instructor.