Future of Financial Services and Fintech
[3rd module, 2022-2023]

Egor Krivosheya & Ekaterina Semerikova
Moscow School of Management SKOLKOVO, Blockchain & FinTech lab
ekrivosheya@skolkovo.ru; esemerikova@skolkovo.ru

Course description

The course develops practical and theoretical approaches for understanding and analyzing the key elements of the financial services market and, in particular, financial technologies (FinTech). The course covers the basic definitions and concepts associated with the financial services industry in its present form and potential future forms, with particular emphasis on the views on the development of the financial services ecosystem, its participants, their roles, and interaction among themselves. Attention is also paid to micro, macro, and megatrends in the industry. The course is intended to provide students with a holistic view of the relevant issues related to the financial services industry in Russia and the world.

The course is devoted to the development of strategy-as-a-practice concepts and skills. In particular, it teaches students basic strategic analysis tools such as value chain analysis, business models, strategic marketing and market research, foresight and future-making, scenario planning, analysis using the CYNEFIN approach. From the conceptual point of view, all of the instruments in the course are supported by examples and cases from Russian and global practice, which allows students to get acquainted with the latest modern trends related to the financial services market in Russia and the world. Classes are built on interactive learning approaches, where the audience is constantly involved in the discussion process. The course requires a basic understanding of financial services and banking. However, the formal completion of such courses is not a prerequisite. The course is based on lectures, seminars, the study of specific cases, and independent as well as group work of students both in and outside the class. There are 7 sessions in the course, each lasting 3 hours (split into two sessions of 1.5 hours with a 15-minute break in between). The course ends with an open-book final exam in the form of a written case.

The course develops analytical skills, which will be useful for strategists, management consultants, analysts (including financial analysts), and other professionals, which use critical analysis of the projects and ongoing processes that are not necessarily based on data analysis. Primary learning objectives include: (1) detecting FinTech scope, boundaries, and limits; (2) identifying and categorizing core FinTech stakeholders, their roles, and primary behavioral patterns or strategies; (3) critically assessing various strategic alternatives associated with FinTech projects, and (4) solving business problems (e.g., in the form of consulting cases) associated with FinTech using strategic management and analysis tools. By the end of the course, students will: (1) be able to navigate the market of financial services and financial technologies; (2) learn to explain and interpret important trends that determine the direction of development of market participants; (3) be able to analyze the effects of changes occurring at both the global or country and industrial levels; (4) have relevant skills in applying strategic analysis tools in the context of the financial services market; (5) be able to self-assess the role of their company and their own roles, as the employees, in the modern financial services market.

Course requirements, grading, and attendance policies

The following system of tests will be used:
Mid-semester exam (self-paced, home-based)/Group home assignment – the midterm exam is conducted in the form of the students' project along the course. This project is done in groups on the topic chosen at the beginning of the course. It requires students to analyze a company/project of their choice (by the criteria mentioned at the beginning of the course) using at least two strategic analysis tools: business model (business model canvas, St. Gallen business model navigator, lean canvas, or others) and at least one other strategic analysis tool discussed in the course. Students are not required to present the results. Students can ask questions regarding the project (no more than 1 question set (e-mail) per week). The rubric for the grading will be available during the first weeks of the course alongside the topics for choice. Students will be required to submit the project before the last week of the course but may start thinking about relevant project parts as the course goes. The group should consist of no more than 4 people.

End of the semester exam – an achievement/attainment test designed to show mastery of strategic analysis tools, especially scenario planning tools. The exam consists of a number of questions that are built around the real-life practice business case related to the financial services industry. Essentially, it takes the form of a written case. Students are allowed to cooperate on the exam. An open book exam tests the critical and lateral thinking abilities of the students and their abilities to apply the discussed material and facts from the course rather than simply recall what was studied. Students also need to use relevant concepts that cannot be easily found on the Internet to create their strategic development plans for the company. Also, students need to use critical reasoning in order to select among different alternatives proposed within the case. Students are graded according to the rubric that includes the following criteria: MECE structure of the scenarios, the use of relevant concepts from the course, understanding of the case, holistic approach to the solution, well-reasoned justification of the final proposition, coherent analysis throughout the case.

The final grade is composed of the following parts:

Group home assignment – 35%
Final exam – 65%

The formula for the grade for the course is:

Z=0.35*GHA+0.65*FE
GHA – midterm assignment/group home assignment mark (out of 100), FE – final exam/project mark (out of 100).

The passing grade for the course of Future of Financial Services and Fintech is 40 out of 100.

There are no other home assignments or elements to the mark. However, students will be given a number of optional assignments both in class and outside the class. Some of the assignments may be awarded bonus points if they are done at an exceptional level. The contents of these assignments are not explained in advance, but the instructors will explain their reasoning to provide bonus points if such a case arises. Students are strongly encouraged to visit the sessions. Standards NES rules on plagiarism and other exceptional cases apply to this course.

Course contents

Topic 1. Overview of the financial services market. Introduction to FinTech

Classification of financial services. Key participants, services, problems. Russian specifics. Micro and macro trends. Definition of financial technologies (FinTech). Introduction to the "value chain" strategic tool. FinTech startups market overview. Fintech in Russia. An introduction to the ecosystem of financial services. Case Studies

Topic 2. Distributed ledger technology and cryptoindustry

Blockchain definition. Blockchain vs Distributed Ledger Technology. The current state of the cryptoindustry. ICO and its statistics. The ecosystem of the cryptoindustry. Relevant technological components of the cryptoindustry ecosystem. Consensus protocols and their types. Tokens nature and taxonomy. Smart contracts and DLT automation. DLT architecture. Oracles and their types. Classification of DLTs. DLT use cases and industry applications. DLT choice models and strategies. DApps and DAOs. Cryptoexchanges and their role in the ecosystem. BigTech companies, incumbents, and their strategies with the DLTs. Current DLT challenges. Opportunities for DLT development. CBDCs and other forms of DLT-based digital currencies. Scenarios for DLT future.

Topic 3. Consumers and their role in the financial services ecosystem

Basic definitions (consumer vs customer). B2C and B2B customers. Client portrait/profile. Key trends related to the consumers and their behavior in the financial services market. Customer engagement by the financial institutions. Generational shifts. Millennials and Generation Z. Consumers excluded from the financial services market. Country policies to increase financial inclusion. Introduction to marketing. Introduction to market research and consumer behavior. Introduction to the approaches for finding company/product vision. A hands-on group product marketing exercise for the relevant target audience.

Topic 4. Banks and other traditional financial institutions and their roles in the financial services ecosystem

Definition of a traditional financial institution (hereinafter - TFI). Key representatives of TFI with examples. Commercial banks. System-forming banks in Russia. Investment banks. Insurance companies. Brokers. Investment companies. Non-banking financial institutions. Systemic risk and problems associated with TFI. The main micro and macro trends. Innovations transforming TFI. TFI vs fintech startups. Strategic interaction between TFI and fintech startups. "Moments of Truth" about TFI services in the eyes of consumers. New generation financial institutions. Financial innovation models. The US-China model of financial innovation. The European model of financial innovation. The Russian model of financial innovation. Mixed models. TFI ecosystems in Russia. Introduction to the main business problems and approaches to their solution (e.g. product mix). Introduction to business models. Case studies.

Topic 5. The state and the regulator and their roles in the financial services ecosystem

Overview of existing regulators in the field of finance in Russia and the world. Classification of regulators and examples of government roles in the financial services ecosystem. The state as a direct participant in the financial services market. Stimulating measures for the development of financial services. The roles of the state and regulation in the development of financial

technologies. CBDCs projects and cases. The main trends in regulation. The state as a leader. Digital economy development. Chinese social score case. Case studies.

Topic 6. New and other players and their roles in the financial services ecosystem

Identification of relevant new players in the financial services industry. Blurring nature of fintech and financial services industry: characteristics of projects, areas of business, examples. Identification of other players and the reasons for their interest and participation in the financial services market. Roles of external players in the development of the financial services market. Introduction to EPESTL. Practical cases. Introduction to static strategic analysis tools.

Topic 7. Foresight session and the future of financial services.

Foresight session with the students [Introduction to the foresight methodology. Conducting a foresight session involving students as experts on a selected topic. Introduction to scenario planning. Summing up the results and building a foresight map and scenarios]. Scenarios of the financial services industry. The future of financial services. Future of skills and knowledge related to financial services. Key technologies related to financial services. Key megatrends. Scenarios related to Russia and its development. Dynamic scenario planning models. Introduction to the CYNEFIN Method. A review of advanced strategic analysis techniques. Summary of the key course highlights.

Description of course methodology
In the baseline setting, each class consists of ~1.5 hours of lecturing and ~1.5 hours of discussions. However, this separation may be non-linear. Students are expected to participate in the discussions and interactive assignments (e.g., group brainstorms) during classes. Most of the discussions are 1-to-all and all-to-1 (instructors discuss the materials with the whole class). However, some of the segments will One session (topic 7) is based on the practical immersion of students in a specific area of the financial services market within the foresight session, where they act as experts on a selected topic. Foresight session may be substituted for a case discussion. Key learning outcomes by topic are:

Topic No.	Topic name	Learning outcomes
1	**Overview of the financial services market. Introduction to FinTech**	Understand the structure, key participants, and their roles in the financial services market; understand the criteria for FinTech projects; can identify current trends related to the financial services industry
2	**Distributed ledger technology and cryptoindustry**	Understand the structure, key participants, and their roles in the cryptoindustry; understands the technology and its components; can identify current trends related to the DLTs
3	**Consumers and their role in the financial services ecosystem**	Possess key marketing skills to study consumer behavior at the introductory level; can identify the segments of the consumers; can critically assess if the product fits the target audience

4	**Banks and other traditional financial institutions and their roles in the financial services ecosystem**	Understand the components of the business model; can identify the elements of the business model in TFIs and BigTech companies; can analyze the motives of the companies in the financial services industry; Can identify current trends related to the TFIs
5	**The state and the regulator and their roles in the financial services ecosystem**	Understand regulators' taxonomy; can analyze the roles of the regulators in the financial services industry; can identify current trends related to the regulation of the financial services
6	**New and other players and their roles in the financial services ecosystem**	Understand the key challenger firms and their roles in the financial services industry; understand and can apply static strategic analysis tools; Can identify current trends related to the new participants in the financial services industry
7	**Foresight session. The future of financial services**	Understand the foresight methodology; can apply relevant knowledge from the course to identify future states of the financial services segment and industry. Understand and can apply dynamic strategic analysis tools; has a holistic view on the development of the financial services in Russia and globally

Course materials

Key materials for this course are the course slides.

This syllabus may be accomplished on the basis of reports and academic articles on the future and present of financial services. Business reports are selected from a number of research papers from key consulting firms (McKinsey, BCG, Bain, Accenture), audit agencies (PwC, EY, KPMG, Deloitte), independent think tanks (SKOLKOVO business school, WEForum, CB Insights), and development institutions (World Bank, IMF). The use of up-to-date authentic materials will help students obtain the necessary skills to understand relevant trends in the financial services industry, form the scenarios of its future development, identify key challenges and opportunities for incumbents and challenger firms, and form the students' much higher level of social and professional adaptation.

Selected reports and academic papers for a more detailed understanding include but are not limited to:
Accenture, "The everyday bank: a new vision for the digital age"
Goldstein, I., Jiang, W., & Karolyi, G. A. (2019). To FinTech and beyond. The Review of Financial Studies, 32(5), 1647-1661.
Hendershott, T., Zhang, X., Zhao, J. L., & Zheng, Z. (2021). FinTech as a Game Changer: Overview of Research Frontiers. Information Systems Research, 32(1), 1-17.
Krivosheya, E. (2020). The role of financial innovations in consumer behavior in the Russian retail payments market. Technological Forecasting and Social Change, 161, 120304.
Semerikova, E. (2020). What hinders the usage of smartphone payments in Russia? Perception of technological and security barriers. Technological Forecasting and Social Change, 161, 120312.

Semerikova, E. (2019). Payment instruments choice of Russian consumers: reasons and pain points. Journal of Enterprising Communities: People and Places in the Global Economy.

WEF (2015), The Future of Financial Services (http://reports.weforum.org/future-of-financial-services-2015/)

Кривошея Е., Семерикова Е., Королев А., Тарусова Е. «Безналичная экономика в России 2030: сценарии для рынка и отрасли». Москва, 2017. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Технологии в криптоиндустрии: состояние, стратегии и эффекты». Москва, 2018. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Регулирование в криптоиндустрии: состояние, стратегии и эффекты». Москва, 2019. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Рынок безналичных розничных платежных услуг в России 2021: потребитель». Москва, 2021. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Рынок безналичных розничных платежных услуг в России 2021: торгово-сервисные предприятия». Москва, 2021. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Платежные экосистемы». Москва, 2018. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Финансовая инклюзивность за пределами доступности». Москва, 2018. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Цифровые валюты центральных банков: типология, дизайн и российская специфика». Москва, 2019. Московская школа управления СКОЛКОВО

Центр исследования финансовых технологий и безналичной экономики СКОЛКОВО-РЭШ. «Цифровая трансформация финансовых услуг: модели развития и стратегии для участников отрасли». Москва, 2019. Московская школа управления СКОЛКОВО

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.