



POLITECNICO
MILANO 1863

**THE ARCHETYPICAL BUSINESS MODELS
OF SUPPLY CHAIN FINANCE IN CHINA**

Author: Yue Yun

Student ID: 898812

Supervisor: Moretto Antonella Maria

Co-supervisor: Cervatti Claudia

Acknowledgements

It has been a memorable experience of the time spent here in Politecnico di Milano. I do appreciate all the professors and tutors I have met for their guidance and support. A sincere gratitude to my family, for all the love they have been giving me. Last but not least, this report is finished during a tough time for us the humanity. I would like to express my greatest respect and gratitude to everyone who has devoted themselves to fighting against the virus.

Index

Executive summary	5
1. Objectives and Methodology	6
1.1 Background.....	6
1.2 Objective and meaning of this work.....	7
1.3 Methodology.....	9
2. Case studies	10
2.1 Yunzhuwang.....	10
2.2 EPEC.com.....	12
2.3 CSCC.....	15
2.4 Xiaomi SCF.....	17
2.5 Luzhoulaojiao	20
2.6 YH Financial Service	22
2.7 Suning.com	25
2.8 Tuniu.com	28
2.9 Zallsteel.com.....	31
2.10 DAOKOUDAI.....	34
2.11 XIANYIRONG	38
2.12 Bank of Jiangsu.....	40
3. Findings	44
3.1 Guaranteed SCF platform	44
3.2 Strategic SCF platform	44
3.3 E-merchants SCF platform	45
3.4 All inclusive SCF platform.....	46
4. Conclusion	48
4.1 Conclusion	48
4.2 Limitations of the work and suggestions for future research	49

Index of tables

Table 1. Yunzhuwang – Introduction.....	10
Table 2. Yunzhuwang – Business Model.....	11
Table 3. EPEC.com – Introduction.....	12
Table 4. EPEC.com – Business Model.....	13
Table 5. CSCC – Introduction.....	15
Table 6. CSCC – Business Model.....	16
Table 7. Xiaomi SCF – Introduction.....	17
Table 8. Xiaomi SCF – Business Model.....	18
Table 9. Luzhoulaojiao – Introduction.....	20
Table 10. Luzhoulaojiao – Business Model.....	20
Table 11. YH Financial Service – Introduction.....	22
Table 12. YH Financial Service – Business Model.....	23
Table 13. Suning.com – Introduction.....	25
Table 14. Suning.com – Business Model.....	26
Table 15. Tuniu.com – Introduction.....	28
Table 16. Tuniu.com – Business Model.....	29
Table 17. Zallsteel.com – Introduction.....	31
Table 18. Zallsteel.com – Business Model.....	32
Table 19. Daokoudai – Introduction.....	34
Table 20. Daokoudai – Business Model.....	35
Table 21. Xianyirong – Introduction.....	38
Table 22. Xianyirong – Business Model.....	38
Table 23. Bank of Jiangsu – Introduction.....	40
Table 24. Bank of Jiangsu – Business Model.....	41

Executive summary

It has been a huge constraint on the development of the micro, small and medium enterprises that they used to suffer from the high interest rate, low line of credit and complicated process when applied for financing from commercial banks. The SCF solutions provide a new way to support the development of SMEs meanwhile can be seen as an opportunity for the core enterprises to carry out business in new industry. The Supply Chain Finance service has been booming in Chinese market, while few researches on the Business Model of the SCF were conducted. This report conducts a case study based on the existing SCF solutions in Chinese market and analyzes their Business Model with the Business Model Canvas. Starting from the four archetypical Business Models raised by the Observatory at Politecnico di Milano, the main characteristics of each type are examined in the report.

The Guaranteed SCF platform, usually developed by state-owned or leading enterprises, serves mainly the heavy industry or traditional manufacturing industry, while the Strategic SCF platform for light industry. E-merchants platform is a newly emerging industry, which can be divided into B2B and B2C with different SCF solutions available. All inclusive SCF platforms can be seen as the newest one, mainly from traditional supply chain management service providers or commercial banks and other financial institutions. Also, each archetype of platforms has distinctive objectives. The Guaranteed SCF platform has the ambition to support the micro, small and medium enterprises in the whole industry by relieving their liquidity pressure when needed. The Strategic SCF platform, however, by supporting the development of its customers, aims to enhance the competitiveness of the focal supply chain against others. The E-merchants SCF platform promotes the financial service to attract more merchants entering the platform and the All inclusive SCF platform regards the provision of SCF services as the main revenue stream.

1. Objectives and Methodology

1.1 Background

Since the concept of Supply Chain Finance (SCF) was first introduced and applied in China, it has been over 20 years and the SCF industry is growing rapidly in recent years. According to the prediction of JingData (2019), by the end of 2020, the SCF market will develop to a scale of 15.86 trillion CNY. The Supply Chain Finance has become an industry encouraged by the Chinese government. In October 2017, the General Office of the State Council issued the “Guiding Opinions of the General Office of the State Council on Vigorously Advancing the Innovation on and Application of Supply Chains”. The proactive and stable development of Supply Chain Finance was emphasized in the guiding opinions, especially the promotion of the SCF solutions to real economy and the risk management of supply chain finance. The government also encourages the SCF services providers, mainly commercial banks and core enterprises, to provide assistance to medium, small and micro enterprises with appropriate SCF solutions. In April 2018, the Ministry of Commerce, the Ministry of Industry and Information Technology, the Ministry of Ecology and Environment, the Ministry of Agriculture and Rural Affairs, the People's Bank of China, the State Administration for Market Regulation, the China Banking and Insurance Regulatory Commission, and the China Federation of Logistics and Purchasing jointly issued the “Notice by Eight Departments Including the Ministry of Commerce Concerning Launching the Pilot Program to Innovate and Apply Supply Chains”, aiming at constructing highly integrated supply chain management platforms, urging core enterprises that can stimulate the development of the whole industry, and gathering experiences and summarizing models that can be introduced to other actors and applied in other regions. In February 2019, the General office of the Communist Party of China and the General Office of the State Council issued the “Notice of Further

Improving the Relevant Work of Serving Private Enterprises Through Finance”, emphasizing the importance and necessity of the application of Supply Chain Finance.

The government policies indicate obvious encouragement of the development of supply chain finance. The academia also keeps researching on relevant topics. Song (2019) explains the development trend of SCF in China and suggests that for future development, the actors should make systematic innovation in the financial end of supply chain finance, form the network of coordination and cooperation, construct the sound cooperation ecology, satisfy the value appeal of industrial supply chain differentiation, and promote the sustainable development of industrial supply chain. Huang and Chu (2019) make a summary of the popular SCF solutions in Chinese market including accounts receivables financing, inventory financing and prepayments financing and raise a framework of solutions consists of solutions based on value-added services provided by logistics providers – including collection on delivery and advance payment – and solutions based on the interrelations between upstream and downstream actors along the supply chain, which can be subdivided into 1) confirming storage finance, credit loan for domestic facility buyers and future delivery financing for downstream companies; 2) accounts receivables financing, purchasing order financing and factoring for upstream suppliers; 3) chattel mortgage financing and warehouse financing based on logistics supervision; 4) invoice discounting, domestic letter of credit financing and bill pool financing with bills and invoices; 5) line of credit of future property in goods with import letter of credit, export accounts receivables pool financing, line of credit with export credit insurance and transnational supply chain finance within the Free Trade Area based on international trade; and 6) arbitrage based on supply chain combine the futures and actuals.

1.2 Objective and meaning of this work

Starting from the year of 2008, plenty of theses about Supply Chain Finance have

been published. And it has always been a hot topic since then. Enterprises regard it as an opportunity and scholars all over the world are doing continuous research about Supply Chain Finance from various aspects. However, there is a gap on the topic of the business model of supply chain finance in China between the scholars in China and in Western countries. In China, there are plenty of researches done on the topic of supply chain finance, while most of them focus on the business process among all the actors, prospect and sustainability or risk control and management done by the focal company, especially the academic literature published before 2018. These years more attention has been paid to the adoption and innovation of Fintech within the industry. Also, sometimes the concept of Supply Chain Finance is studied together with “Internet Finance”, “P2P lending” (many online P2P lending platforms take SCF products as their next opportunity) and “Blockchain Finance”, etc. We could hardly find any literature about detailed analysis of the business model using the business model canvas raised by Osterwalder and Pigneur in 2010 as the template. The business model canvas is relatively unfamiliar and unpopular in China before 2018. It has not been known and used by the scholars until recent years. While in Western countries, researches on the Supply Chain Finance at domestic level or global level are abundant, but scarce at Chinese level.

As we can learn from the previous work, we found that the study on the business model of supply chain finance in China is quite a blank area to be studied. The Observatory at Politecnico di Milano has been conducting research on the topic of Supply Chain Finance in China, especially focusing on the Business Model. The report published by the Observatory in 2019 identified four archetypal business models, including:

- Strategic SCF Platform, Supply Chain Finance used throughout the whole supply chain, offered by producers to suppliers and distributors to consolidate their strategic relations;
- Guaranteed SCF Platform, to meet occasional financial requirements of the upstream supply chain;

- E-merchants SCF Platform, to provide financial support for sellers of the eCommerce platform;
- All inclusive SCF Platform, to extend services to the entire supply chain, in addition to the digitalization of the order cycle.

This report starts from these 4 archetypical business models and tries to clarify and demonstrate them with several case studies based on empirical research. The main objective is to make a discursive analysis of existing solutions at Chinese level as a supplementary explanation of the archetypical business models.

1.3 Methodology

During the research, two methodologies are mainly adopted: literature review and case study.

Over 30 academic literatures are studied. Most of them are theses of case studies about the supply chain finance solutions provided by the company studied. Literatures about the government policies, the development trend of SCF in China, innovation of SCF solutions and other relevant topics are also studied.

Empirical case study is conducted, analyzing in total 12 enterprises or platforms. The case study is done based on information from secondary sources including academic literatures, reports, media and the official website of the company. The Business Model Canvas developed by Osterwalder and Pigneur (2010) is used to demonstrate the business model of each SCF service provider.

2. Case studies

A case study on 12 companies and platforms is done, among which three companies were chosen to demonstrate each archetypical business model.

2.1 Yunzhuwang

Platform Name	YUNZHUWANG
Platform provider	China State Construction Co, Ltd
Headquarter	Chengdu
Date of launch	2015
Introduction	YUNZHUWANG (www.yzw.cn) is the online platform of the China State Construction Development Co, Ltd. It is a vertical digital platform dedicated in the construction industry. The platform provides services including online bidding, material and components purchasing, labor management, financial service and smart construction.
Scale	Until April 2020, over 1500 suppliers of 18 core enterprises have received financing through the platform, with an accumulated amount of 24.4 billion CNY.
SCF service	Reverse factoring
Source	www.yzw.cn http://www.100ec.cn/detail--6523027.html

Table 1: Yunzhuwang – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
----------------	-----------------	----------------	--

Value Delivery	Customer Segment		Suppliers of the subsidiaries and engineering bureaus affiliated to China State Construction Engineering Corporation (CSCEC), mainly the first-tier supplier
	Customer Relationship		With the core enterprises: they can consult for customized solutions, for example the core enterprise can choose which bank it prefer for funding; With the suppliers: the platform aims to provide one-stop service through the whole business flow; for the financing process, the suppliers only need a “one-click” application and they don’t have to negotiate with the banks or provide any materials for authentication;
	Channels		The online platform for the application for the financing service; Hotline, online chat and e-mail for customer service; WeChat official account for customer service and notification;
Value Proposition		SCF Products	Reverse factoring
		Benefits from the Platform	For the banks: the improved traceability and transparency of each transaction reduces the risk of fraudulence; a digitalized platform improves the efficiency of the operation; For the suppliers: the platform simplifies the procedure of financing application and reduces the time and cost required for financing;
Value Creation	Key Partners		Core enterprises: the subsidiaries and engineering bureaus affiliated to China State Construction Engineering Corporation; 10 Banks: China Merchants Bank when the service was launched, now also in corporation with 9 other banks;
	Key Activities		Platform maintenance: since all the operations are conducted online, it is utmost important to provide the service steadily; Negotiation with the core enterprises and banks: to provide the core enterprises with satisfying customized solutions; Data interchange with the banks: traditionally through the data interface between the platform and the bank’s database but now realized based

			on the technology of Blockchain;
	Key Resources		<p>A highly integrated platform: from bidding to contracting, from financing application to payment, all the activities can be conducted on the platform; it is not only more convenient for the partners but also the platform could have a view of the whole information flow;</p> <p>A decentralized platform based on Blockchain: all the transaction data of each node and each step is shared on a distributed ledger maintained together by both the core enterprises and the financial institutions, which proves the traceability and reliability of the data;</p> <p>Comprehensive knowledge about the construction industry: the platform is set by the subsidiary of CSCEC, which is the largest engineering contractor in the world, so it has a thorough understanding on the pain points of the traditional business model; also, as professional as it is, the platform could offer the customers with more effective solutions;</p> <p>The ability to integrate the whole supply chain: as the core enterprises are also the leaders in the industry, the platform is more attractive to the small and medium suppliers to enter;</p>
Value Capture	Revenue Stream		-
	Cost Structure		The platform build and maintenance cost;

Table 2: YUNZHUWANG – Business Model

2.2 EPEC.com

Platform Name	EPEC.com
Platform provider	SINOPEC

Headquarter	Beijing
Date of launch	April 2015
Introduction	Sinopec Group is one of the largest petroleum and petrochemical enterprise in the world. It ranked the third on Fortune's Global 500 List in 2018. EPEC.com is an e-commerce platform supported by Sinopec that facilitates SC2B (supply chain to businesses) transactions of industrial products.
Target	Upstream suppliers of Sinopec
SCF model	N+1
Funding structure	Funds provided by commercial banks (Huaxia Bank, Bank of communications, China Guangfa Bank, China Minsheng Bank, Industrial and Commercial Bank of China, Bank of China) as well as internal factoring company
Source	https://mall.epec.com/ecmall http://www.sinopec.com/

Table 3: EPEC.com – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		EPEC.com is accessible to all the suppliers and buyers of Sinopec. However, SCF services are provided only for upstream suppliers. The suppliers need to get registered on EPEC's platform and pass identity authentication before applying for SCF services.
	Customer Relationship		Customer managers promote the SCF services to the suppliers and provide support and guidance, learn about their needs; As regards the factoring service, the internal factoring company works directly with suppliers; while for the purchase order finance, the platform acts as an intermediary between suppliers and banks;
	Channels		Online platform for financing application; Online customer service and

			personal area on the website, Call center, App for communication;
Value Proposition		SCF Products	Factoring; Purchase order financing;
		Benefits from the Platform	<p>The purchase order financing service reduces the financing cost of the suppliers and improves their financing efficiency. With the previous transaction records EPEC sharing with the banks, the necessary documents required are simplified and the standard of guarantee and mortgages are reduced. In this way, it may ensure a faster approval and increase the credit amount to facilitate financing for suppliers based on the transactions on EPEC's platform. Suppliers can consult the status of their application anytime on EPEC's platform. They can inquire also the information about credit line, use of credit line, bank loan release and OBS;</p> <p>With the factoring service, generally suppliers can receive 70%-80% of the accounts receivable after the completion of delivery and the acceptance of Sinopec to mitigate funding liquidity pressures. The loans releasing time is sharply reduced (T+0) and EPEC offers attractive interest rate (5.88% at the lowest level). It doesn't occupy the credit line of suppliers from financial institutions. The financing period is flexible and the whole process can be operated online;</p>
Value Creation	Key Partners		Six commercial banks for order financing funding (Huaxia Bank, Bank of communications, China Guangfa Bank, China Minsheng Bank, Industrial and Commercial Bank of China, Bank of China); Strategic suppliers; Xuhuai commercial factoring company; (internal) EPEC factoring company;
	Key Activities		<p>System integration with the cooperative banks;</p> <p>Information and data allocation and analysis;</p> <p>(the EPEC factoring company) accepts, examines and approves the factoring applications;</p>

			Assigned accounts management;
	Key Resources		EPEC (Sinopec) has abundant knowledge about the industry and their suppliers; The strategic relationship between EPEC and the cooperative banks;
Value Capture	Revenue Stream		Interest rate from factoring service;
	Cost Structure		Platform maintenance cost;

Table 4: EPEC.com – Business Model

2.3 CSCC

Platform Name	CSCC
Platform provider	CSCC (中企云链)
Headquarter	Beijing
Date of launch	2015
Introduction	CSCC (www.yljr.com) was a state-controlled mixed ownership enterprise jointly established by 11 central state-owned enterprises (CRRC, CRCC, SINOMACH, CASC, CSIC, Ansteel Group, CHALCO, COSCO Shipping, China Merchants Group, CEEC and China Railway Materials Company), 2 financial institutions, 6 local state-owned enterprises and 4 private enterprises. Most of these enterprises are operating in heavy industries. CSCC is an online SCF platform through which the founder enterprises support other actors in the supply chain. The platform has the vision to promote the Internet Finance to traditional heavy industries and serve better the various actors with most reliable, convenient and professional

	financial services, to build a positive ecosystem. Besides SCF solutions, the platform also provides information and Fintech services.
SCF model	N+N+N
Funding structure	The platform's assets; Commercial banks;
Source	https://www.ylir.com/

Table 5: CSCC – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		Suppliers of core enterprises that have registered on the platform;
	Customer Relationship		Free PaaS to core enterprises; Credit of the core enterprises are used as the settlement method, which is called Yunxin; the line of credit of the core enterprise is evaluated by commercial banks; Yunxin of core enterprise can be divided and transferred to the upstream suppliers and they can use the Yunxin received in two ways: to transfer it to the second-tier suppliers or apply for factoring service; the process is completely online and the financing is as prompt as T+0;
	Channels		CSCC website; Mobile App; Offline promotion teams;
Value Proposition		SCF Products	Traditional: Reverse factoring; Invoice discounting; Innovative: Yunxin (credit transfer and financing)
		Benefits from the Platform	Improve the efficiency of the whole supply chain; The innovative product Yunxin is more flexible compared with traditional solutions; it can be used conveniently to pay for the upper-tier suppliers without any additional cost; The interest rate is lower than traditional financing method;

			Yunxin is an independent system, and it will not be accounted into the line of credit of the company with commercial banks; The risk that the commercial banks are facing has been reduced;
Value Creation	Key Partners		The founder enterprises; China Financial Certification Authority (CFCA); China CITIC Bank for settlement accounts; and other commercial banks; 21 Vianet Group for data escrow;
	Key Activities		Development of the innovative system such as Yunxin; Fintech research and development, mainly on the Blockchain platform; Other relevant consultation or supportive services for customers; Promotion of the platform in less developed areas; Coordination among actors of distinct roles;
	Key Resources		A transaction data record platform based on the technology of Blockchain assures the traceability and reliability of the information; High level of security assurance in collaboration with key partners; The founder enterprises are mainly large state-owned enterprises with thousands of suppliers, which assures a high level of information and cash flow on the platform;
Value Capture	Revenue Stream		Service fee; financial interest through the reverse factoring service;
	Cost Structure		Promotion cost; R&D Cost; Platform maintenance cost;

Table 6: CSCC – Business Model

2.4 Xiaomi SCF

Platform Name	Xiaomi SCF
Platform	Xiaomi

provider	
Headquarter	Beijing
Date of launch	March 2018
Introduction	Xiaomi is an internet company with smartphones and smart hardware connected by an IoT platform at its core. In March 2018, Xiaomi established the supply chain finance platform to serve its suppliers and distributors. The company also established two factoring subsidiaries to support the SCF service. In August 2018, Xiaomi SCF, in cooperation with CITIC Securities, launched the Asset Backed Securities (ABS) at Shanghai Stock Exchange with planned scale of 10 billion CNY. The first batch has a scale of 300 million CNY, among which 285 million with an AAA rating. It is the first ABS project based on Supply Chain Finance towards new economy enterprises on the stock market in China.
Scale	By the end of 2019, Xiaomi SCF has provided services to over 300 upstream/downstream enterprises, with an accumulated amount of over 30 billion CNY; the ABS project over 10 billion CNY; the line of credit from commercial banks over 6 billion CNY;
SCF model	N+1+N and N+N+N
Funding structure	Internal subsidiaries; Commercial Banks; Stock market;
Source	https://scf.mi.com/#/ https://www.sohu.com/a/250980426_778083

Table 7: Xiaomi SCF – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		Upstream supplier of Xiaomi, Enterprises in the Xiaomi ecological chain; Merchants entering on the platform Xiaomi Youpin; Core enterprises in

			smart manufacturing industry; Downstream dealers and retailers;
	Customer Relations		New customer has to register on the platform and a customer manager will get in touch with the customer; The routine operations are all included on the integrated platform;
	Channels		Integrated online platform;
Value Proposition		SCF Products	Reverse factoring, credit assignment for suppliers; Loans for the New Retailing stores; Customized solutions for Xiaomi Youpin Merchants;
		Benefits from the Platform	SCF finance is the first step for Xiaomi to realize the mission to provide packaged financial services to the customers; Lower interest rate and more flexible solutions available for customers; Through the credit assignment, Xiaomi can not only support the first-tier suppliers but also upper-tier suppliers; Lower risk thanks to the technology of Blockchain; The efficiency of the whole supply chain will be improved;
Value Creation	Key Partners		Commercial banks; Cloud service providers;
	Key Activities		Access to the ERP or other management system of customers and make data analysis based on the information learned; Continuous research on Fintech; Optimization of the management model inside the platform;
	Key Resources		Fintech adopted to develop the platform and the solutions; The Asset-Backed Securities project successfully released; Xiaomi is one of the leading enterprises in the smart device manufacturing industry, and it has business contact with almost all the enterprises in the industry; Internally developed risk management model;
Value Capture	Revenue Stream		Financial interest from factoring service;

	Cost Structure		Platform maintenance cost; Integration cost with key partners; R&D cost;
--	-----------------------	--	--

Table 8: Xiaomi SCF – Business Model

2.5 Luzhoulaojiao

Platform Name	LUZHOULAOJIAO
Platform provider	LUZHOULAOJIAO GROUP
Headquarter	SICHUAN
Date of launch	-
Introduction	<p>LUZHOULAOJIAO is one of the leading liquor brands in China. The core enterprise is professional in the production of liquor meanwhile the group has also established subsidiaries covering relevant industries such as finance, trading, sales, etc. The group is the leading enterprise in Luzhou, where the government also targets liquor industry as the core industry to develop and encourages and supports the development of relevant industry, with direct investment and supportive policies.</p>
SCF model	N+1+N
Funding structure	Postal Savings Bank of China; Financial institutions affiliated to Luzhoulaojiao group; Other social institutions;
Source	https://www.2b.cn/all/2018-06-08/69293.html#

Table 9: Luzhoulaojiao – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value	Customer		Upstream suppliers: mainly package producers and raw material

Delivery	Segment		suppliers, most of which are labor-intensive SMEs; Downstream dealers: including subsidiaries dedicated on sales and regional dealers or distributors;
	Customer Relationship		The group, in collaboration with local government, is developing a liquor industrial park and providing support for the SMEs entering the industrial park: as regard the financial level, the SMEs can apply for the financing service with their machinery ,work-in-process or inventory as pledge; The group aims at building long-term strategic relationship with the first-tier regional dealers;
	Channels		Local offline service;
Value Proposition		SCF Products	Accounts receivables financing for upstream suppliers; Confirming storage financing for downstream dealers;
		Benefits from the Platform	Upstream SMEs in the industrial park can get loans from banks or other financial institutions at base interest rate; and the line of credit is highly improved; Consolidate the relationship between the group and regional dealers; The Luzhou Laojiao group can step into new strategic business units, becoming more competitive in other industry besides liquor production;
Value Creation	Key Partners		Postal Savings Bank of China; Local government in Luzhou, Sichuan; Other banks and companies in collaboration with the industrial park;
	Key Activities		Intra-group information exchange: although affiliated to the unique group, each subsidiary is managed and operated by its own team; so that to assure the intra-information flow is of great importance; Risk management due to the high variability and long lead time of upstream suppliers; Introducing upstream suppliers into the industrial park; Training and promotion to the dealers and distributors;
	Key		Support from local government: as the leading enterprise in the leading

	Resources		<p>industry at the local level, the government has published many preferential policies to stimulate the development of both the liquor industry and the relevant industries;</p> <p>The group established a premium supply chain management company, aiming at optimizing the supply chain and build an integration platform;</p> <p>High bargaining power against the banks thanks to its absolute power in the whole chain and abundant cash flow;</p> <p>Several actors are the subsidiaries of the group, which facilitate the information flow among the network and make it more efficient and effective to assess the suppliers/dealers;</p>
Value Capture	Revenue Stream		Cash flow into the subsidiaries directly concerned with the financing service; also, the group aims at the holistic and sustainable development of the whole industry;
	Cost Structure		Investment to establish the relevant subsidiaries;

Table 10: Luzhou Laojiao – Business Model

2.6 YH Financial Service

Platform Name	YH Financial Service
Platform provider	Yonghui Superstores
Headquarter	Shanghai
Date of launch	2015
Introduction	Yonghui Superstores Co., Ltd. is a listed company engaging in the operation of supermarkets. It is one of the leading enterprises of agricultural industrialization in China. The Company primarily manages the dealing of fresh meat products, agricultural products,

	processed foods, daily necessities, clothing, household appliances, electronic products and imported goods. There are over 1100 supermarkets spread over 28 provinces in China. YH Financial Service is the Internet Financial service platform established by Yonghui Superstores based on the ecosystem of the superstores. It provides services including supply chain finance, consumer finance, agriculture finance and financial service in the specific commercial centers.
SCF model	N+1
Funding structure	Part from internal subsidiary and part from commercial banks
Source	https://jr.yonghui.cn/#cfq

Table 11: YH Financial Service – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		Upstream suppliers, especially small and medium or even private business in fresh goods, agricultural products and processed food, which the company regards as core competences, and has a long-term relationship with Yonghui Superstores;
	Customer Relationship		A long-term relationship between the company and suppliers; Online application and payment with the automated and immediate approval within the pre-determined line of credit; Distinct financial products provided for each type of suppliers; Self-service in most cases;
	Channels		An online integrated service platform, also available through mobile App; Customer hotline for customer service;
Value Proposition		SCF Products	Accounts receivables financing;
		Benefits	Lower financing cost both with a lower interest rate and through the

		<p>from the Platform</p>	<p>more flexible procedure;</p> <p>The micro and private suppliers can also get access to financing service, facing less liquidity pressure;</p> <p>Supplier can choose the repayment method: automated repayment when the supermarket pay the receivables or suppliers can repay on the platform whenever they have free cash;</p> <p>The company strengthens the relationship with the suppliers; also, it enhances the bargaining power against the suppliers;</p> <p>The supply chain as a whole becomes more competitive;</p> <p>Once built a professional platform, it can be seen as a new business unit and serve suppliers of other core supermarkets;</p> <p>The commercial banks face less risk since the credit is guaranteed by the supermarket;</p>
<p>Value Creation</p>	<p>Key Partners</p>		<p>Commercial banks: e.g. China Guangfa Bank, China CITIC Bank, Bank of China, etc.;</p> <p>Other retail enterprises: e.g. Carrefour, Watsons, Zhongbai Holdings Group, etc.;</p> <p>Core enterprises: e.g. Joyvio, Mengniu Dairy, etc.;</p> <p>Insurance company: Ancheng Property & Casualty Insurance Co., Ltd, etc.;</p>
	<p>Key Activities</p>		<p>Data interchange with the banks at beginning: interchange between the company's ERP system and the banks' management platform;</p> <p>Pre-determination of the line of credit for each supplier: the company has a criterion to determine the distinct line of credit for each supplier; once determined, it is valid throughout the year;</p> <p>Post-loan management in case of overdue: send notification to the supplier; if the repayment is still overdue, the supplier will be blocked on the platform;</p> <p>Establishing dedicated subsidiaries in finance industry: including</p>

			<p>factoring company, micro lending company, bank, etc.;</p> <p>Collaboration and promotion towards other core enterprises and their suppliers: the company aims to provide financial services not only towards suppliers in its own supply chain, but also of other core enterprises;</p> <p>Innovation of the operating model of the business with the concept “new retail”;</p>
	Key Resources		<p>Fintech used on the platform: Big Data analysis, advanced financial search engine; Artificial Intelligence; transaction model; etc.;</p> <p>Inventory turnover higher than average: which indicates that less capital is hold as inventory and a higher liquidity of the company;</p> <p>Hundred-percent digitalization and 24/7 service realized not only on the web platform but also on the mobile App, which comes the first in the industry;</p> <p>A mature ecosystem including also the storage and distribution;</p>
Value Capture	Revenue Stream		Financial interest rate (0.33‰ to 0.44‰ for different financial products);
	Cost Structure		Platform maintenance cost;

Table 12: YH Financial Service – Business Model

2.7 Suning.com

Platform Name	SUNING.COM
Platform provider	Suning Holdings Group
Headquarter	Nanjing
Date of launch	2012

Introduction	<p>Founded in 1990, Suning Holdings Group now ranks the third in the Chinese private sector. The group has several subsidiaries and has its business scope covering three main sectors: Retail, Real Estate and Financial Service. Suning.com is a leading O2O smart retail service provider in China. It has always been promoting the strategy of omni channel retail. As of 2019, Suning.com has established a nationwide offline network consisting of over 13000 innovative stores meanwhile has its online business ranked the top three B2C platforms in China. Suning Finance, being a pioneer in O2O finance in China, mainly consists of 3 entities: Suning Financial Services Company, Suning Bank and Suning Consumer Finance Company. It operates following the business logic and development model of “Fintech + Scenario Finance = Inclusive Finance” and it has been selected among the first 16 Fintech pilot units by the Central Bank</p>
Funding structure	Suning Bank and partner commercial banks
Source	https://qyjr.suning.com/

Table 13: Suning.com – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		Suppliers of Suning Holdings Group; Merchants on the e-merchants platform Suning.com; Dealers and agents of core enterprises; Companies using the storage or delivery service of Suning Logistics;
	Customer Relationship		Different SCF solutions designated for each customer segment; The provision of SCF service is highly automated and prompt; Customized solutions are available for core enterprises;
	Channels		One-stop online service platform;

			Hotline and email for consultation;
Value Proposition		SCF Products	<p>Zhang Su Rong (accounts fast financing): Accounts receivables financing and factoring for the suppliers of Suning;</p> <p>Xin Su Rong (credit fast financing): Line of credit for merchants on the e-merchants platform Suning.com;</p> <p>Huo Su Rong (goods fast financing): Inventory financing and purchase order financing if the cargo is stored or managed by Suning Logistics;</p> <p>Le Ye Dai (loans): Purchase order financing for the small or medium dealers and agents if the contract is made with core enterprises;</p> <p>Piao Su Rong (invoice fast financing): Invoice discounting;</p>
		Benefits from the Platform	<p>The financing cost is highly reduced;</p> <p>With Zhang Su Rong, each supplier has a daily updated pre-approved financing pool, within which the financing process can be automated and almost real-time;</p> <p>Lower interest rate and the financing terms are flexible;</p> <p>Reduced information asymmetry since the platform seizes the complete information flow;</p>
Value Creation	Key Partners		<p>Core enterprises: for example Evergrande Group, Sinopec Lubricant Company, etc.;</p> <p>Commercial banks: China Construction Bank, Bank of Communications, DBS Bank, the Bank of East Asia, etc.;</p> <p>Supply chain management or supply chain finance service platforms: the e-merchant platform of State Grid Corporation of China, etc.;</p>
	Key Activities		<p>Continuous technology innovation: Suning Finance keeps investing into the research and development of six core financial technologies including big data risk control, Blockchain, IoT, financial AI, financial cloud and biometric identification;</p> <p>Software and hardware integration to realize real-time monitoring Information management and analysis;</p>

			Data interchange with commercial banks; Seek for partners in other industries;
	Key Resources		All the transactional data are recorded on the platform, and the company has a full knowledge about how the suppliers operates, which makes the evaluation of the suppliers more reliable; The adoption of smart supply chain; The strategy of omni channel retail; High level of Fintech application;
Value Capture	Revenue Stream		Financial interest and service fee;
	Cost Structure		Operation cost; Research and Development Cost;

Table 14: Suning.com – Business Model

2.8 Tuniu.com

Platform Name	NIU YE DAI
Platform provider	Tuniu.com
Headquarter	Nanjing
Date of launch	2014
Introduction	Tuniu.com is an e-commerce merchant that provides tourism products on the B2C platform. The platform is in collaboration with thousands of suppliers including for example travel agencies, ticket agents, hotels and other companies in the tourism industry. Travelers can order various tourism products on the platform including traffic, hotels, tickets, signing up for package tour as well as customized tourism products. At the end of 2014, the company

	announced to launch the supply chain finance project to support the suppliers with liquidity pressure.
SCF model	N+1
Funding structure	Part from cooperative banks and part from the company's equity
Source	http://www.tuniu.com/static/financial_services/

Table 15: Tuniu.com – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment	Platform Access Criteria and Exclusivity	Upstream suppliers with liquidity pressure: as an online tourism service provider, Tuniu.com has suppliers of many types – medium and small local travel agencies, ticket agents and other retailers – which may face a high liquidity pressure especially during peak season;
	Customer Relationship		Flexible and simple financing: no fixed terms, a daily interest is charged; no need for mortgage or guarantee; online application and the payment is shortened to as prompt as one day;
	Channels		A dedicated online system;
Value Proposition		SCF Products	Order financing for all the suppliers; Credit financing for high-rated suppliers; (and the platform also provides financing service to individual customers);
		Benefits from the Platform	For the suppliers: they don't have much tangible assets and the business is highly seasonal, so it is difficult to borrow from commercial banks in the traditional way, especially those small and medium agents and agencies; and the tourism industry requires large amount of working capital; with the financing service provided by the platform, suppliers can finance in a more flexible way to relieve their liquidity pressure; For the platform: strengthen the relationship between suppliers and

			Tuniu.com; the platform can maintain the current payment terms (one day/one month after the customer has consumed the tourism product); also, it is the first try for the company to implement the comprehensive Internet finance business;
Value Creation	Key Partners		Commercial banks; insurance company; big data analysis company;
	Key Activities		<p>Risk control: considering the characteristics of the tourism industry (for example considerable seasonality, high vulnerability to external crisis, etc.) and the characteristics of the upstream small and mediums agents and agencies (for example the organization is not well organized and it is hard to evaluate its financial performance), the SCF is facing higher default risk; the risk rating is conducted based on the category of the supplier and the product portfolio it provides, as well as the historical transaction data;</p> <p>Promotion to the suppliers: not all the suppliers keep a positive attitude to the product NIUYEDAI, and some of them even boycott it, regarding it as the excuse of the company not to shorten the payment terms. The company has a long way to go to promote the benefits of the SCF products to the suppliers and to get more of them onboard;</p>
	Key Resources		<p>A systematic risk control model internally developed;</p> <p>A large-scale network: there are over 16500 suppliers by the end of 2018 and over 100 million tourism products have been sold;</p> <p>Line of credit in total equals to 5 billion CNY: 3 billion from commercial banks and 2 billion from the company;</p>
Value Capture	Revenue Stream		Financial interest;
	Cost Structure		Possible insolvency; platform maintenance cost; operational cost;

Table 16: Tuniu.com – Business Model

2.9 Zallsteel.com

Platform Name	ZALLSTEEL.COM
Platform provider	Zall Group
Headquarter	Shanghai
Date of launch	February 2018
Introduction	<p>Zall Group (02098.HK) was established in 1996. It focuses on supply-chain property and trading services for the wholesale market, and mainly provides customers with wholesale trading services including property, logistics, warehousing, finance, online trading and big data. The group created North Hankou International Trade Centre, which is the largest consumer goods processing, trading and logistics platform in China. It also created Tianjin E-Commerce Mall, aiming to build the largest commercial trade and logistics center in North China. Besides the infrastructure the group has built, it also has acquired, built or joint-invested several online B2B platform including Zallgo, LightInTheBox, Shenzhen Sinoagri, Huasuhui, Zallsteel and Commodities Intelligence Center; covering industries of consumables, agriculture, chemical, plastic, steel, non-ferrous metal, etc.; and other value-added services subsidiaries such as Zalljinfu and Zallsoon providing financial and logistics service. Zallsteel.com was established in February 2018 by Zall Group together with Xiben New Line Stock Co., Ltd. and a professional management team dedicated on ferrous products. In addition to a B2B e-merchants platform, the company has the vision to build it into an</p>

	integrated platform with service on smart transaction, supply chain management, data analysis, warehouse, delivery and IoT.
Funding structure	Wuhan Zhongbang Bank and other commercial banks;
Source	https://www.zallsteel.com/

Table 17: Zallsteel.com – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		All the companies registered on the platform and has met up with the authentication and qualification; the transaction must be done on the platform;
	Customer Relationship		New customers need to consult leaving a message on the chat bot or calling the customer service hotline; once registered, they will have an appointed customer manager or operator for each service; the approval of line of credit is not one-off but is valid for a certain period (from 12 to 36 months for different service) and the service can be very flexible within the period;
	Channels		Online platform for all the operations; Customer managers for consultation; WeChat official account where daily report is published, summarizing the industry news;
Value Proposition		SCF Products	Accounts receivables financing: maximum amount of 50 million CNY; the processing time can be reduced to as quickly as 4 hours; Credit loans: with a renewable line of credit of at maximum 3 million CNY within 36 months; Invoice discounting: the customer can inquire directly on the platform the discounting rate of each bank and choose the one they prefer; the discounting rate is daily updated and the platform will illustrate the

			<p>variation within a period;</p> <p>Inventory financing: suppliers pay 15%-20% of the cargo value as deposit and get financing from the platform; the platform will assist the selling of the inventories and return the deposit as the goods are sold;</p>
		Benefits from the Platform	<p>Transparency and visibility of the whole process reduces risk;</p> <p>Customers can have a higher line of credit and lower financing cost, the payment is as prompt as in the same day (T+0);</p> <p>As long as the customer doesn't have default records in the system, the authentication is easy to pass;</p> <p>Customers can decide the term and amount as they need, through a completely online process;</p> <p>The financing service promotes the transaction on the platform (each SCF product has its targeting business on the platform);</p>
Value Creation	Key Partners		<p>Wuhan Zhongbang Bank (co-established by Zall Group and other five enterprises; Zall Group holds 30% share of the bank);</p> <p>Other commercial banks;</p> <p>Fintech companies and academic research teams;</p>
	Key Activities		<p>Research about the industry: Zallsteel keeps monitoring the domestic ferrous market and obtain the price indices with the inter-developed algorithm, which can reflect the market dynamics; apart from the market, the company always keeps an eye on the newest relevant information including new technology, national policy, enterprise news, etc.;</p> <p>Real-time data analysis focusing on the transportation of products, their volume and corresponding price;</p> <p>Maintenance of the platform;</p> <p>Upgrade of the SCF solutions provided: since it was launched in 2018, "GangGouEDai" (the accounts receivables financing) has been develop into version 3.0;</p>
	Key		SaaS solutions having Distribution Management System, Warehouse

	Resources		<p>Management System, Transportation Management System and Supply Chain Management integrated into the unique cloud platform;</p> <p>Synergies realized with other subsidiaries of the Zall Group, especially within the area of logistics (Zallsoon) and financial service (Zalljinfu);</p> <p>Offices spread over most regions in China;</p> <p>Fintech such as Blockchain and Artificial Intelligence are used;</p> <p>The company is very responsive to any market fluctuation;</p>
Value Capture	Revenue Stream		Service fee; Financial interest;
	Cost Structure		Cloud platform maintenance cost; Research and Development cost; Operation cost;

Table 18: Zallsteel.com – Business Model

2.10 DAOKOUDAI

Platform Name	DAOKOUDAI.com
Platform founder	Tsinghua Holdings Co., Ltd.
Headquarter	Beijing
Date of launch	November 2014
Introduction	<p>DAOKOUDAI is an Internet Fintech company founded by Tsinghua Holdings Co., Ltd based on the research outcomes of Tsinghua PBCSF Internet Finance Laboratory. It acts as an intermediary between the personal lenders and SMEs with liquidity pressure.</p> <p>The platform Daokoudai.com has collaborated with 108 core enterprises and served over 9000 companies (by the end of April, 2020). There have been more than 180,000 registered users and around 37,000 have lent out money on the platform at least once;</p>

Scale	By the end of April 2020, the platform has facilitated more than 28,000 financing projects and accumulated transaction amount more than 13.5 billion CNY;
Funding structure	Funding from personal lenders (P2B)
Source	www.daokoudai.com

Table 19: DAOKOUDAI – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment	Platform Access Criteria and Exclusivity	The platform is open only to enterprises founded or managed by the alumni of Tsinghua University (sometimes other famous universities) or leading companies and their upstream suppliers/downstream buyers; the companies must comply with the information disclosure requirements when registering;
	Customer Relationship		With individual lenders: daily updated publications of transaction data; QQ chat group for intra-user communication; With core enterprises: get in touch with the core enterprises starting from the alumni but also requires standardized assessment;
	Channels		P2B (Peer-to-Business) platform; Online chat, email and hotline for customer service; WeChat official accounts (one for project publications and one for customer notifications);
Value Proposition		SCF Products	Mainly accounts receivables financing; also prepayments or purchase order financing;
		Benefits from the Platform	Lenders and borrowers can activate accounts for funds deposit at Sichuan Xinwang Bank, which assures funds security (the platform won't get access to the cash cycle but only lenders, borrowers and the bank); More sufficient information disclosure compared to other platforms to

			<p>reduce the information asymmetry;</p> <p>The alumni social network of Tsinghua University or other famous universities build up a constraint for borrowers from moral level (lower default risk);</p>
<p>Value Creation</p>	<p>Key Partners</p>		<p>Sichuan Xinwang Bank for funds deposit;</p> <p>Tsinghua PBCSF Internet Finance Laboratory; CASME (China Association of Small and Medium Enterprises); LLINKS Law Offices; CIS (Shanghai Credit Information Services Co., Ltd); Legal Miner; Fadada.com;</p> <p>Core enterprises (108 by the end of April 2020);</p>
	<p>Key Activities</p>		<p>Education on the potential risks for lenders;</p> <p>Test for the lenders (the lender is conservative, moderate or proactive);</p> <p>On-site investigation of the core enterprises when negotiating to enter;</p> <p>Risk rating and risk pricing for each core enterprise after investigation (the rating will be reevaluated and adjusted in case of default); the risk pricing is based on the results of on-site investigation and due diligence and also takes into consideration the industry risk, operation risk, financial risk, moral hazard, credit history and entrepreneurship;</p> <p>Publication and notification of both new projects and repayments (daily update on the website, App and WeChat);</p> <p>Daily updated operation data publication;</p> <p>Each accounts receivable financing project is registered on the uniform registration platform for movables financing belonging to the credit reference center of the People's Bank of China;</p> <p>Post-loan management: a working team monitors on the multi-dimensional data of the core enterprises (including operation data, industry news, financial data, laws and public opinions) with reference to the credit report;</p> <p>Risk prediction: multi-dimensional analysis of the core enterprise;</p>

			In case of risk alarming, the process is divided into four phases: 1)meet the actual controller of the company for the repayment plan; 2)with a high probability of overdue, ask for the company's explanation, repayment commitment and plan; 3)if overdue happens, communicate with the lenders about the future plan; 4)solve the overdue problem with relevant laws and regulations;
	Key Resources		Alumni social network of Tsinghua University (the top-2 universities in China) as a way to develop new users and to reduce risk; Advanced security precautions in terms of information encryption, firewall and anti-invasion system, strict internal process control and backup and recovery system; Self-developed cloud platform and risk control system;
Value Capture	Revenue Stream		Service fee charged to lenders: 10% of agreed interest rate (currently for free); Commission of recharge and withdrawal: currently for free; Service fee charged to borrowers: Commission of withdrawal: 1.5 CNY for each ordinary operation and 0.03%*withdrawal amounts+1.5 CNY (no more than 200CNY) for each expedited service; Commission of registration of accounts receivables financing projects: 15CNY for short-term projects (less than six months) and 30 CNY for projects terms longer than six months; Service fee for financing: no fixed rate;
	Cost Structure		Compensation for overdue projects; Service fee paid to Xinwang Bank for access and funds deposit; Platform integration and maintenance cost; Currently lenders recharging and withdrawal service fee are paid by the platform;

Table 20: DAOKOUDAI – Business Model

2.11 XIANYIRONG

Platform Name	XIANYIRONG
Platform provider	Shanghai Rencai Network Technology Co, Ltd.
Headquarter	Shanghai
Date of launch	2016
Introduction	Shanghai Rencai Network Technology is a professional supply chain technology company. It has five service line including a B2B online ordering system, a B2B2C e-merchant platform, a pre warehouse management system (integration of warehouse and distribution of fresh goods), a supply chain finance service platform and a platform matching the supply or demand of different actors among the network. Xianyirong is the supply chain finance service platform among these aforementioned service lines.
Funding structure	Commercial banks
Source	http://www.freshqiao.com/product/xianyirong.html

Table 21: XIANYIRONG – Introduction

Macro Grouping	Building Blocks	Sub-Variab les	
Value Delivery	Customer Segment		Suppliers in the fast moving consumer goods industry such as snacks, fresh goods, cereals, condiments, beverages, commodities, etc. who are in shortage of working capital and have registered on the platform;
	Customer Relationship		New customers need to contact the customer service for details; the platform acts as an intermediary between the lenders and borrowers;
	Channels		The SaaS platform developed by the company;

			Online chat, hotline or WeChat official account for consultation;
Value Proposition		SCF Products	Accounts receivables financing (the financing amount can be at maximum 70% of the accounts receivables); inventory financing;
		Benefits from the Platform	A flexible financing term: the period can be from 15 days to 12 months, the suppliers can choose the solutions they prefer; Customers can apply for financing without pledge; The SCF solutions are designed based on real data, reduces the risk that the commercial banks are facing;
Value Creation	Key Partners		Commercial banks;
	Key Activities		On-site investigation and due diligence of the new suppliers; Big data analysis as a method of risk control; Financial audit of the suppliers; Examine the suppliers' rating on the credit reference center; Different verification rules and processes for different customers; Construction of the online as well as offline supply chain network;
	Key Resources		The SaaS platform designated for the SMEs along the supply chain; The company has built a comprehensive network covering the business, information, products and cash flow in the whole ecosystem; Other services provided by the company such as the widely spread cold chain logistics assure a large amount user base on the platform; National supportive policies in agricultural industry;
Value Capture	Revenue Stream		Service fee;
	Cost Structure		Platform maintenance cost; Operation cost;

Table 22: XIANYIRONG – Business Model

2.12 Bank of Jiangsu

Platform Name	BANK OF JIANGSU
Platform provider	Bank of Jiangsu
Headquarter	Nanjing
Date of launch	2007
Introduction	<p>The Bank of Jiangsu is a listed bank and one of the three “National supply chain innovation and application program” pilot banks. Located in the Yangtze river delta economic region, which is one of the most developed regions in China, the Bank of Jiangsu has the inborn advantage on the development and application of Fintech. It has set up an industry chain finance research institute in collaboration with Shanghai University of Finance and Economics, Institute of Computing Technology of Chinese Academy of Sciences and Jiangsu Zhongda Supply Chain Technology Inc. This is the first research institute in China that integrates the perspectives from industrial, financing and academia participants. The bank has also built up strategic relationship with China Unicom to establish the “5G Innovation Lab”.</p>
Target	Medium, small and micro enterprises; mainly focus on entities in the three major economic circles in China;
SCF model	N+1+N and N+N
Source	http://www.jsbchina.cn http://news.cnstock.com/news,bwkx-201811-4299665.htm https://www.sohu.com/a/315912240_123877?sec=wd

Table 23: Bank of Jiangsu – Introduction

Macro

Building

Sub-Variab

Grouping	Blocks	les	
Value Delivery	Customer Segment		<p>Core enterprises and their upstream/downstream companies;</p> <p>Medium, small and micro enterprises in high-tech, service or agricultural industry can apply for debts with few or even without guarantee; they only need to provide their business license, company regulations, financial statements, the personal materials of the corporate representative, materials of the use of funds and contracts related (if needed);</p>
	Customer Relationship		<p>Online banking for all customers;</p> <p>Some financing applications can be submitted through the official website and the customer manager will reply to the applicant within three working days;</p> <p>Customer manager in local branches for consulting and accepting applications;</p>
	Channels		<p>Online platform “Zhi Sheng transaction bank” as well as offline branches;</p> <p>App, WeChat, Online customer service on the web for customer service;</p>
Value Proposition		SCF Products	<p>Traditional SCF products: factoring, reverse factoring, bill pool, account receivable financing, chattel mortgage, domestic letter of credit, prepayments financing;</p> <p>Customized products for media, small and micro enterprises even small private business in high-tech, service and agricultural industry (e.g. “Intelligence star” is a product designed for individuals who has been recognized in the talent project of national or local government and their companies);</p> <p>Financing for companies having received the bid acceptance letter of governmental procurement;</p>
		Benefits from the Platform	<p>The application of Fintech reduces the operation risk and default risk for the bank; the flexible and customized products provide the small and micro enterprises with lower interest rate, higher line of credit, various</p>

			<p>guarantees, longer terms and priority in the approval process; some of them can apply for financing within their line of credit after evaluation (one-time evaluation valid for financing application through several years); shorter funds releasing time (in some cases T+0); companies will have a special account for the funds;</p> <p>Reduced information asymmetry through the online processing;</p>
Value Creation	Key Partners		<p>China Unicom; Shanghai University of Finance and Economics; Institute of Computing Technology of Chinese Academy of Sciences; Jiangsu Zhongda Supply Chain Technology Inc;</p> <p>Some government departments (e.g. Jiangsu provincial commission of agriculture, Taxation bureau);</p> <p>State Grid Corporation of China;</p> <p>Core enterprises;</p> <p>Commodity (bulk stock) transaction platforms;</p>
	Key Activities		<p>The bank constructs an online purchasing platform designated for supermarkets and their suppliers and supply chain management corporations;</p> <p>Collaborating with factoring companies in the regions where the bank hasn't set up branches;</p> <p>The SPV management model is used for authentication and payback;</p> <p>Risk management and control including anti-fraud, credit rating, risk pricing, blacklist & grey list, calculation of line of credit and risk warning supported by Fintech;</p> <p>Real-time monitoring of pre-determined indicators, the risk control department raise solutions in case of defaults;</p> <p>Online acceptance, auditing and approval for financing applications;</p> <p>Communication with the companies through the online banking;</p>
	Key Resource		<p>Application of Fintech (Block chain, IoT, Big data, Artificial intelligence, etc.);</p>

	s		<p>Interchange with external platform (for example the State Information Center);</p> <p>Collaboration with government departments (for example the taxation bureau);</p> <p>The bank has established a big data platform called “Rong Chuang Think tank” to store and process data, it can also be accessed by external stakeholders;</p>
Value Capture	Revenue Stream		Financial interest; Service fee
	Cost Structure		Research and development cost (1% of the annual operating income in 2017); Platform maintenance cost; Cost for the interchange with external database;

Table 24: Bank of Jiangsu – Business Model

3. Findings

3.1 Guaranteed SCF platform

Yunzhuwang, EPEC.com and CSCC are chosen as examples of this archetype. These platforms are usually constructed by the state-owned enterprises or leading enterprises in manufacturing industry to support their thousands of upstream micro, small and medium suppliers. In case that the platform is established by state-owned enterprises, they usually have the vision to not only service their own suppliers but to build it into an industrial one. The interchange between the platform and the core enterprises is of great importance. With the technology of Blockchain applied, the risk management model is developed.

Reverse Factoring is the most common SCF products on the platform as it can be flexible to meet the requirements of the SMEs. It is a popular solution in heavy industries as well as traditional manufacturing industries, where it may be not a hotspot as attractive as the emerging industries to the Internet Finance players. It also explains why it usually requires the state-owned capital to intervene.

3.2 Strategic SCF platform

Three core enterprises are studied as providers of a strategic SCF platform: Xiaomi, Luzhoulaojiao Group and Yonghui Superstores. The enterprises have a complex supply network spread all over the whole country and the SCF service is provided in order to support other actors within the network and to strengthen the relationship between them and the core enterprises. Accounts receivables financing is usually the option available for the suppliers while flexible solutions for distributors with respect to distinctive structure of the supply chain.

Different from the Guaranteed SCF platforms which are popular in traditional

industries, the Strategic SCF platforms are more common in light industries where more private enterprises are operating in. The focal companies are promoting the SCF solutions in order to develop an ecosystem where companies can be more united and to enhance the competitiveness of the whole supply chain against those of other companies. There are usually some supportive government policies for the focal companies of this type since they usually have the mission and vision to assure the co-development with other companies inside the supply network. In the cases chosen, Luzhou Laojiao, as the core enterprise in the local leading industry, collaborating with the government to construct the comprehensive industry park, Yonghui Superstores benefiting the agricultural SME suppliers and Xiaomi as a player in smart industry, all enjoy somehow the convenience policies.

3.3 E-merchants SCF platform

The author takes three platforms as representatives of three distinctive types of E-merchants platform. Suning.com is a comprehensive B2C E-merchant platform, Tuniu.com a B2C one dedicated in a specific industry and relevant businesses and Zallsteel.com a B2B one.

Although there are some differences in the operational strategies of the platforms, we can still find some common characteristics about the business model each company developed. The SCF services are provided mainly for the merchants entering the platform. In the case of Suning.com there is a slightly distinction that the Suning Group is not a completely digitalized enterprise but keeps promoting the strategy of Omni-channel, so that the suppliers of its offline stores are also the target customers of the SCF services. All of the companies have the same objective to attract more merchants get onboard the e-platform and the SCF solutions are seen as a support to make the platform more attractive. The primary qualification are usually conducted based on the historical transaction data recorded on the platform that are considerably reliable since the platform can get access to the original data and

sometimes even the information and logistics flow along the whole process. Once qualified, the authentication of the financing application each time is normally prompt and automated, unless in the case of default or risk warning. The platform has its internally developed algorithm to inspect the transaction on it and to evaluate the suppliers and merchants. For the B2C platforms, most cases it is their first step towards the financial services to develop SCF service. By establishing dedicated financing subsidiaries, they do have the ambition to promote consumer financing to their individual customers.

3.4 All inclusive SCF platform

This is the most complex one among the four archetypes raised. It may be the way of transformation with new strategies for the traditional commercial banks or financial institutions (as the case of Bank of Jiangsu) or for the supply chain management solution providers (as the case of Xianyirong). And it is also an area where there are fierce competitions among Fintech start-ups. Compared with the aforementioned three archetypes, the funding structure is more flexible: it can be similar to traditional source such as commercial banks and financial institutions; or it can also be as innovative as from individual investors. While in the previous cases, the provision of SCF solutions is more supportive than profitable, in this model, the provision of SCF solutions is the primary revenue stream of the company, from financial interest or service fee. Fintech is widely used by these companies, including Big Data analysis, Blockchain, IoT, Artificial Intelligence, etc. The SaaS (Software-as-a-Service) is becoming a megatrend.

Since this type of platforms is not the actor directly participating in the primary value-added activities, they rely more on the partners to get access to enough data and information to learn about the true conditions of the actors along the supply chain in order to reduce risks. As far as the banks and financial institutions are concerned, in the past years the cases of fake invoices fraudulence happened occasionally. As a

result, they are proactively seeking new financial solutions with higher level of digitalization and security. The risk management of All Inclusive SCF platforms is the key activities each platform devotes lots of resources to conduct. Most of the risk management models are developed based on Fintech while there are also innovations from some players. For example with the case Daokoudai we studied, they raised the alumni community as a way to reduce potential risks.

4. Conclusion

4.1 Conclusion

The Supply Chain Finance service has been booming in Chinese market. The micro, small and medium enterprises used to suffer from the high interest rate, low line of credit and complicated process when applied for financing from commercial banks. It indicates the potential to promote SCF in China. The supportive policies issued by the central and local government and the research on Fintech stimulate the rapid growth of SCF business in China. It has become a megatrend for core enterprises and other actors in their supply chain, together with any stakeholders such as financial institutions, Fintech companies, etc. to participate in Supply Chain Finance service.

Four archetypical Business Models were raised including Guaranteed SCF platform, Strategic SCF platform, E-merchants SCF platform and All inclusive SCF platform. The characteristics of each archetype are examined in the report. The application of Fintech is widely used in most of the solutions, but with different level. Big Data analysis with the transaction data recorded is conducted to assess the risks. The technology of Blockchain is becoming more and more popular to assure the authentication of the transactions. While the technologies such as Artificial Intelligence are still in the starting phase. All the core enterprises are devoting lots of resources on the Research and Development of Fintech.

To summarize the differences among each archetype, the most obvious one is the industries they serve or operate in. The Guaranteed SCF platform, usually developed by state-owned or leading enterprises, serves mainly the heavy industry or traditional manufacturing industry, while the Strategic SCF platform for light industry. E-merchants platform is a newly emerging industry, which can be divided into B2B and B2C with different SCF solutions available. All inclusive SCF platforms can be seen as the newest one, mainly from traditional supply chain management service

providers or commercial banks and other financial institutions. Also, each archetype of platforms has distinctive objectives. The Guaranteed SCF platform has the ambition to support the micro, small and medium enterprises in the whole industry by relieving their liquidity pressure when needed. The Strategic SCF platform, however, by supporting the development of its customers, aims to enhance the competitiveness of the focal supply chain against others. The E-merchants SCF platform promotes the financial service to attract more merchants entering the platform and the All inclusive SCF platform regards the provision of SCF services as the main revenue stream.

4.2 Limitations of the work and suggestions for future research

This report is written based on the empirical case studies from secondary sources. Limited by the emergency of corona virus, it is hardly possible to make an interview with the company studied. As hardly as the author has tried to search from accessible sources, there are still some missing details of some modules in the business model canvas, especially regarding the value capture. For future research, if there could be opportunities to make an in-depth interview with the companies, it will be of great value to supplement more details.

Also, as a result of the difficulty of interview, when choosing the cases to study, the author chose mainly state-owned enterprises or leading enterprises in the industry, because there is more information available as well as completed research work taking those companies as example. In fact, in China there are also plenty of Fintech start-ups; some of them performed well and achieved high amount of investments. They should be a valuable subject to research; however, the author visited the websites of several companies and found very few information available. Most of the start-ups require direct contact with them. It would be meaningful to take this type of companies into the cases analyzed to be more representative.

The emergency brought about during the virus time is taken by many platforms as an opportunity and even a turning point to upgrade their business model, to be more responsive and supportive during hard time for the SMEs. Future research on this topic needs to be noticed.

When the author read the case studies done by former researchers, she found that a few companies studied before have now been shut down or even investigated by the police, commonly in the case of P2P platforms. Most platforms are still in the beginning or growing phase and not all of them can become a success. There may be huge variation against the company's strategy. Even the cases analyzed in this report are facing the problem. In the case of DAOKOUDAI, the platform was firstly been focused for its unique risk management system and zero overdue rate; however, as more projects are launched on the platform, the overdue and default rate are synchronously growing. As a result, the confidence of investors on the platform is declining. It raises new challenges and urges the platform to innovate on its business model to keep its competitiveness. In general, it is worthwhile to keep an eye on the future development of the cases studied.

As the government policies have high level of impact on the operation and strategy of Chinese companies, it is necessary to focus on the newest policies. These years the government is vigorously promoting the agricultural supply chain finance to support the small and micro agricultural enterprises as well as individuals. Unfortunately it is still in the very primary phase and the author failed to find a representative case. But it would be in the priority with supportive policies and regulations in the future without doubt.

References

- Ding, Y.C. & Chen, R.H. (2019). 供应链金融下商业保理资产证券化模式探析——以小米供应链应付账款 ABS 为例. *Journal of Zhengzhou University of Aeronautics*, 2019, Vol.37, No.4, 61-70.
- Fu, Y.H. (2019). *The study of CSCC. The innovation of the Internet Supply Chain Finance*. (in Chinese) Zhejiang University
- Hu, J (2011). *Research on financing products of supply chains in the liquor industry – analysis of the supply chain of luzhou laojiao*. (in Chinese) Southwestern University of Finance and Economics.
- Gu, J., Cheng, X., & Deng, X. (2017). Research on the Supply Chain Financing Innovative Model of Small and Medium Enterprises. (in Chinese) *Soft Science*, February 2017, Vol. 31, No.2, 83-86.
- Jiang, Y.J (2013). *The credit risk of supply chain finance research of Luzhou Yongtuo Liqour Industry Park*. (in Chinese) Ocean University of China.
- JingData (2019). 2019 中国供应链金融行业发展报告.
- Li, H & Quan, H (2016). 互联网旅游金融及其未来趋势研究. *Social Sciences in Ningxia*, 2016, No. 6, 110-115.
- Li, J. (2018). *以连锁超市为核心企业的供应链融资方法研究——以永辉超市供应链为例*. Qingdao University.
- Liu, J (2017). *Research on financial risk management of tourism supply chain*. (in Chinese) Southeast University.
- Liu, X.H., Zhou, L.G. & Wu, Y.C.J (2015). Supply Chain Finance in China: Business innovation and theory development. *Sustainability*, 2015, 7, 14689-14709.
- Politecnico di Milano – Digital Innovation Osservatory (2019). *Welcome to the supply chain finance collaborative arena*.
- Qian, Z.C. (2018). *Supply Chain Finance case study – Taking Yonghui Supermarket as an example*. (in Chinese) Chinese Academy of Fiscal Sciences.
- Song H. (2019). The development trend of China's Supply Chain Finance. (in Chinese) *China Business And Market*, March 2019, Vol.33, No.3.

- Tian, Y (2014). *江苏银行仓单质押风险管理研究——基于内部控制的视角*. Nanjing Normal University.
- Trusted Blockchain Initiatives (2018). *区块链与供应链金融白皮书（1.0版）*.
- Wang, Y. & Mao, M (2019). Research on financial financing model of China's E-commerce platform supply chain – Taking ant Jinfu, Jingdong and Suning as examples. (in Chinese) *Logistics engineering and management*, 2019, Vol. 41, No.3, 75-78.
- Wu, C.D., Wu, L., Zhu, H., Pan, X.T & Liu, Y.R (2018). “核心企业主导模式下供应链金融平台分析——以中石化易派客平台为例”, retrieved on 2018/11/29 at: [<http://www.xdsyzzs.com/jinrongshixian/4803.html>]
- Xu, X.H., Chen, X.F., Jia, F., Brown, S., Gong, Y. & Xu, Y.F. (2018). Supply chain finance: A systematic literature review and bibliometric analysis. *International Journal of Production Economics*, 204 (2018), 160-173.
- Yi, Q. (2018). Food industry supply chain financing research – taking Xianyi Holding Group as an example. (in Chinese) *Logistics Sci-Tech*, 2018, No.9, 130-131.
- Zhong, C.X. (2017). *The risk management of Internet Supply Chain Finance – Cases analysis of Jingdong and Daokoudai*. (in Chinese) Beijing Jiaotong University.