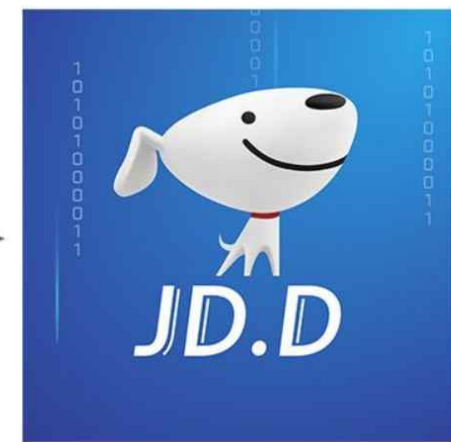
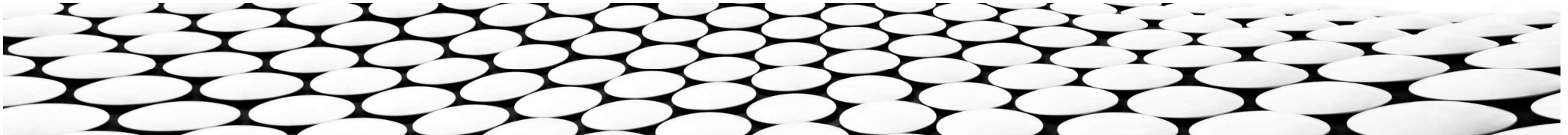


EXPLORING THE SCF ROLE ON E-COMMERCE PLATFORM FROM THE VIEW OF COMPETITIVE ADVANTAGES

LELE ZHOU, JIA RONG CHEN AND HYANG SOOK LEE



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1. INTRODUCTION

Background

- The **development of Internet technology** and **the influence of the 4th global industrial revolution** promote the growth of E-commerce.
- **China's E-commerce development scale is continuously leading the world** (Cramer-Flood 2020b).
- However, the development of **China's E-commerce is also facing some challenges**.
- Most of the participants are **small and medium-sized enterprises (SMEs) in China's E-commerce**. To adapt to the Digital Age, these SMEs have to invest more and make changes, which result in the **financial difficulties** (MOFCOM 2020).
- Therefore, **For changing the situation of capital lacking, many E-commerce platforms start to carry out SCF (Supply Chain Finance)**.

1. INTRODUCTION

Research Aims

- The SCF has been implemented by various forms in E-commerce, **such as a financial product, service, mechanism, solution, or even a core economic model.**
- However, **the role definition of SCF played in E-commerce** looks pretty **indistinct** in previous research and study. Some scholars believed that SCF is the financial solution for E-retailers, while others argued it is a new E-business model.
- To better explore and detect the **specific SCF role and position in E-industry**, this paper takes the research from a competitive advantage vision, and selects typical JD SCF practice as the case and put forward two detailed research questions as :
 - **Question 1: Why SCF adoption is needed on the E-commerce of JD.COM? (the drivers)**
 - **Question 2: What is the role of SCF in E-commerce of JD.COM?**

2. LITERATURE REVIEW

Competitive Advantages

Porter (1980)

"Competitive advantages are at the **heart** of a firm's performance in competitive markets", and it relates to **low costs, differentiation advantage, and a successful focus strategy**.

Kay (1995)

"Competitive performance is from the **added value**".

Brandenburger and Stuart (1996)

"Gaining the competitive advantage is to have an additional **positive value that must be 'different' from competitors**".

Barney et al. (Barney 2001; Barney and Clark 2007)

"Competitive advantage is a firm obtains **above-normal performance when it generates greater-than-expected value from the resources it employs**".

Besanko et al. (2000)

"Organisations with a competitive advantage might benefit from **earning a higher rate of economic profit than average within the same market**".

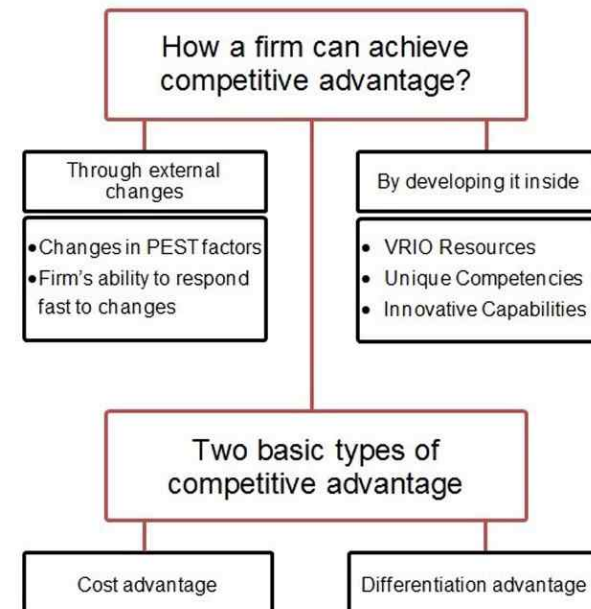
2. LITERATURE REVIEW

How to gain competitive advantages?

Porter's (1980) generic strategies model offered three ways of "overall cost leadership", "differentiation", and "focus".

Treacy and Wiersema (1993) believed "operational excellence", "customer intimacy", and "product leadership" are three competitive advantages acquisition requirements (value disciplines).

Jurevicius (2013) regarded that **through external and internal changes** can achieve competitive advantages.



Competitive Advantages Model.
Source: Jurevicius, 2013. Competitive Advantages. Available at: <https://strategicmanagementinsight.com/topics/competitive-advantage.html>

2. LITERATURE REVIEW

E-commerce

E-commerce is powered and derived by the Internet since 1970. This E-transaction process typically **involves the exchange of value** (Zwass 2019). The primary type for E-commerce includes B2B, B2C, C2C, C2B, and G2B.

Because of the huge impact of the Covid-19 epidemic, global retail E-commerce sales decrease to a 16.5% growth rate in 2020, but **Asia-Pacific and North America** still stay in the leading position in E-sales retail in 2020.

In particular, **China's 62.6% share of E-commerce** reflects most digital trading and sales in Asia-Pacific, proving China's pioneering edge in the world's E-commerce (Cramer-Flood 2020b)

Forbes report (Koetsier 2020) also revealed that 4 Chinese companies owned more than 40% of Global E-commerce in 2019.). ->(**Taobao.com, 15%; TMall.com, 14%; Amazon, 13%; JD.COM, 9%; Pinduoduo (PDD), 4%; eBay, 3%.**)

Top 10 Companies in China, Ranked by Retail Ecommerce Sales Share, 2020

% of total retail ecommerce sales

1. Alibaba	56.0%
2. JD.com	17.1%
10.5%	3. Pinduoduo
1.7%	4. Suning
1.0%	5. vip.com
0.6%	6. Yihaodian
0.4%	7. Gome
0.2%	8. Dangdang
0.1%	9. Mogujie
0.0%	10. Jumei

Retail Ecommerce Sales Worldwide, by regions, 2020

Source: cited from China Ecommerce 2020, Emarketer.com

2. LITERATURE REVIEW

Supply Chain Finance (SCF)

SCF is a new concept in financial areas since the 1970s.

After the financial crisis broke out in 2008, the SCF-related research enters the rapid development stage.

Gelsomino et al. (2016),

SCF has two dimensions of "supply-chain-oriented" and "finance-oriented".

Omran et al. 2017; Chen et al. 2019; Lin and Lin 2018; Andrew and Bloomentha 2020

SCF is a financial solution provided by financial organisations for capital optimisation in the supply chain with benefits in simultaneously reducing financing costs and improving the business efficiency of buyers and sellers linked in a sales transaction .

Hong (2015), Wei (2018) and Lin (2020),

from the perspective of the ecosystem recognised that SCF is developed for solving SMEs' financial problems and promoting modern logistics development.

Shen et al. (2019), Wan and Qie (2020)

brought the concept of "platform" into SCF, arguing that SCF is the platform that can collect and integrate data, information, finance, logistics and business flows, leading to precise poverty alleviation.

Chen et al. (2019)

conducted SCF research in online retailer E-commerce environment, emphasizing that SCF is one finance tool mainly through capital allocation and cost reduction to improve the whole supply chain's competitiveness.

2. LITERATURE REVIEW

SCF- Classification

Jia et al. (2020)

Divide SCF business model into 4 types of "manufacturer-centred", "bank-centred", "3PL-business", and "supply-chain-actor-centred".

Chen et al. (2019)

4 types of core organisations that adopt SCF mainly relates to 1) 3PLs, 2) B2C/C2C and B2B E-commerce platforms, 3) manufacturers with strong bargaining power and favourable credit, and 4) professional software providers.

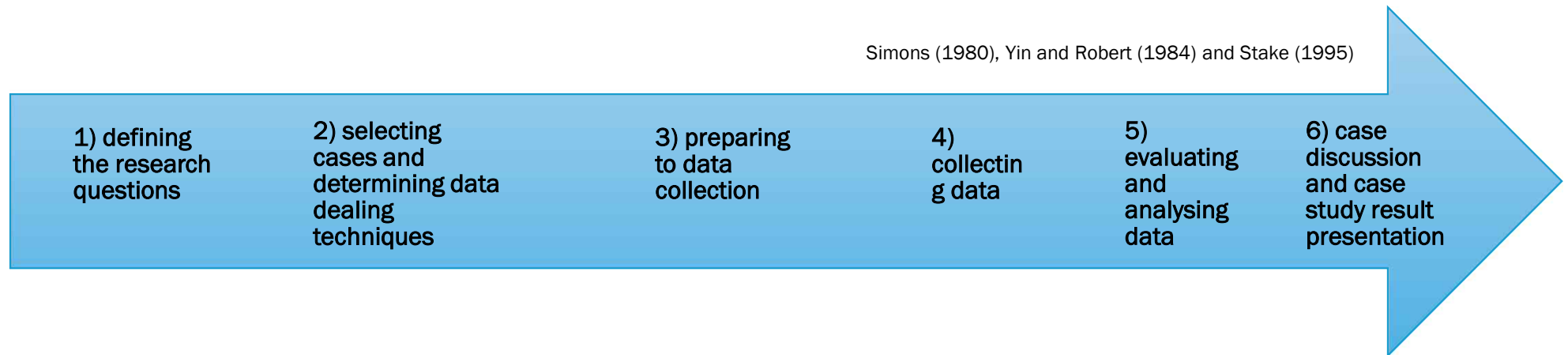
Authors (combined with the classification review of previous scholars)

5 types of "SCF led by Bank", "SCF led by E-commerce (B2C/B2B/B2C)", "SCF led by Logistics Enterprises (3PLs)", "SCF led by Traditional Industry Giants (Focal Manufacturers)", "SCF led by Software Provider".

3. METHODOLOGY

The primary research method in this paper is a single and in-depth case study.

Simons (1980), Yin and Robert (1984) and Stake (1995)



- 2 research questions have been put forward

- JD.COM is one of the largest E-commerce platforms in China's domestic market (always in 2nd position)
- The JD SCF is in a pioneer position mainly focused on the B2B2C field.
- few studies about SCF practice in the B2B2C E-commerce field.

- PEST model
- VRIO model
- The detailed financial business models

- Mainly through existing official data

- by a comprehensive within-case study

- Presenting answers for the 2 research questions

3. METHODOLOGY: CASE STUDY- THEORETICAL MODEL

PEST

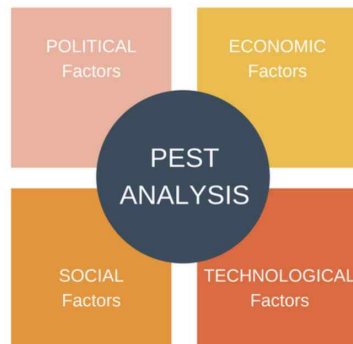
- PEST -external change on Political, Economic, Social, Technological

VRIO

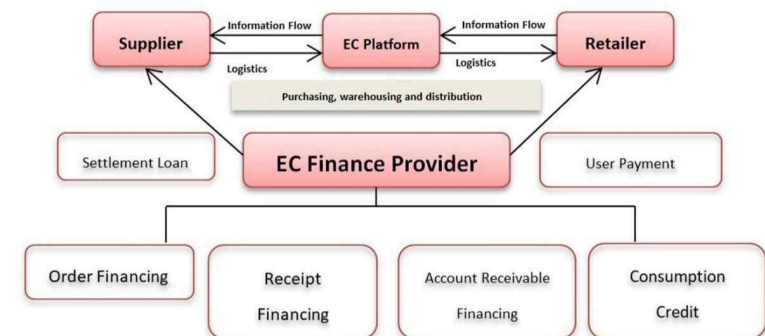
- VRIO -value, rarity, imitability and organisation (Barney and Clark 2007; Hesterly and Barney 2008).

E-commerce SCF Business Model

- 2 dimensions of "settlement loan" and "user payment",
- 4 types of "order financing", "receipt financing", "account receivable financing", and "consumption credit".



	Valuable?	Rare?	Costly to Imitate?	Exploited by Organisation?	Competitive Implications
VRIO Framework	No	No	No	No or Yes?	Competitive Disadvantage
	Yes	No	No		Competitive Parity
	Yes	Yes	No		Temporary Competitive Advantage
	Yes	Yes	Yes		Sustained Competitive Advantage



4. CASE STUDY ON JD SCF PRACTICE

-CASE DESCRIPTION

JD.COM

- *JD.COM was founded in 2004, covering the sectors of E-commerce, logistics, Internet finance, cloud computing, and intelligent technology; 2nd position.*

JD Finance

- *JD Finance mainly refers to the sub-business unit of the JD.COM group from 2012 to 2017;*

JD Digits (JDD)

- *JD Digits (JDD) primarily means the independent organisation after the business restructuring and upgrading of JD Finance in 2017.*

4. CASE STUDY ON JD SCF PRACTICE -CASE DESCRIPTION

Business Cycle of JD Finance & JD Digits (JDD)

The Initial Stage (2012.10-2013.12): Establishing

- *In October 2012, JD Finance began to operate backing by JD.COM group.*

The Growth Stage (2014.01-2016.02): Enriching

- *Enriching product categories from a single product line to multiple product.*

The Upgrade Stage (2017.03-2018.11): Pioneering

- *At this stage, JD Finance has been involved in the process of transformation and upgrading.*

The Sustainable development period (2018.11-Present): Continuous Innovation

- *After November 2018 JD Finance has been evolved into a submodule under JDD and the business lines are expanded into 3 of 1) ToF, 2) ToB, and 3) ToG.*

4. CASE STUDY ON JD SCF PRACTICE -EXTERNAL DRIVERS

P (Political)

Since 1998, 16 incentive policies and regulations related to SCF development have been raised to the national strategy height for **creating a stable political environment** for SCF development in China.

E (Economic)

As the backbone of China's economic development, SMEs contribute significantly to China's economy and GDP and show a rapid growth trend. But characterised by high financing costs and inferior financing positions, **SMEs face financing difficulties.**

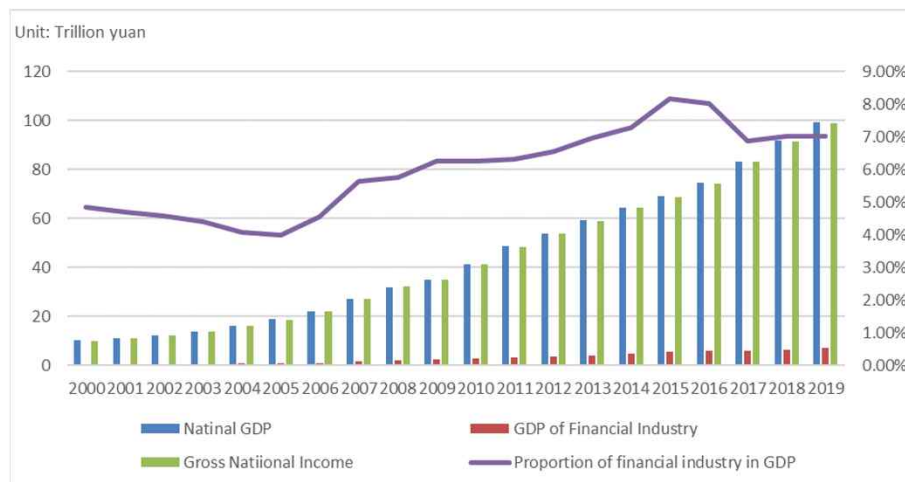
S (Social)

People's lives and society have been changed significantly due to the widespread of the Internet and E-commerce; the social credit system and mechanism are constantly improving to ensure the economy's healthy operation, resulting in SCF development.

T (Technological)

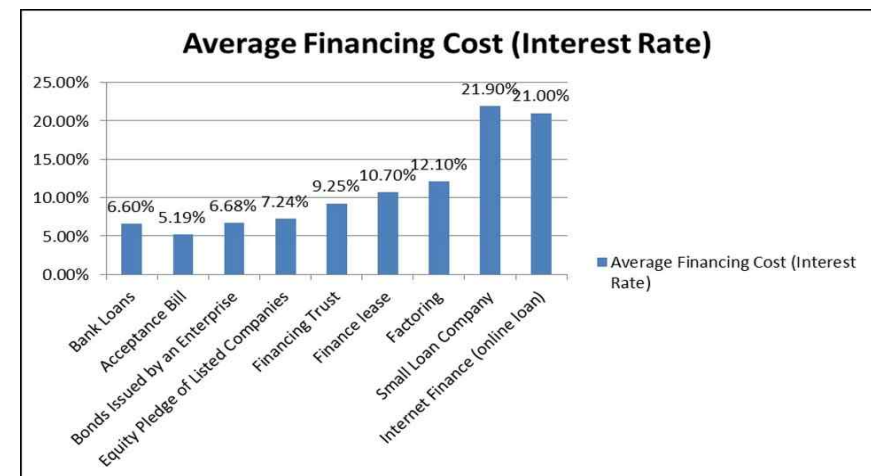
New technology's innovation, including big data, AI, 5G, cloud computing, blockchain, and IoT, strengthens the foundation for Internet Finance.

4. CASE STUDY ON JD SCF PRACTICE -EXTERNAL DRIVERS



National Income, National GDP & Financial Industry GDP Growth Trend

Source: China National Statistical Yearbook (2020)



Average Financing Cost (Interest Rate) by Different Financing Channels

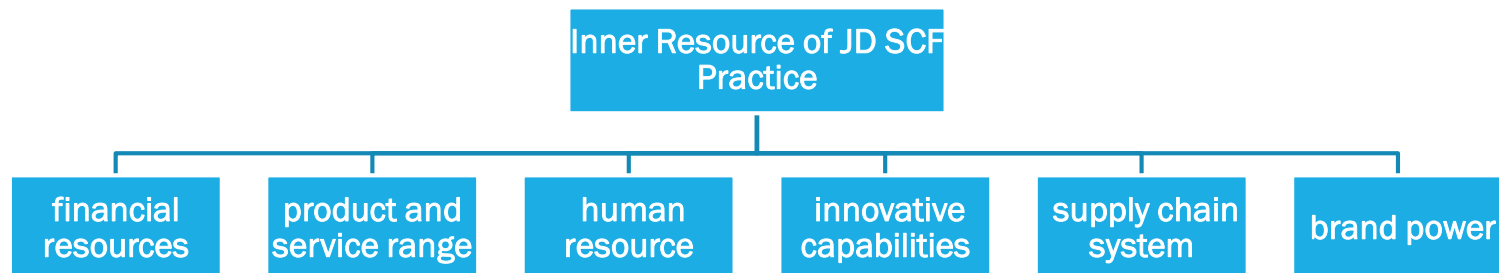
Source: Indirect cited from social Financing Cost Index (2018)

released by Tsinghua University in Tongdun Tech.'s Report in 2019.

4. CASE STUDY ON JD SCF PRACTICE -INTERNAL DRIVERS

VRIO-value, rarity, imitability and organisation

- The VRIO framework is for examining sustained competitive advantage (Johnson et al. 2011; Jurevicius 2013; Knott 2015).
- The core of VRIO is laid on **how to define a firms' inner resources**.
- Following Barney's (1991) theory, *"all assets, capabilities, attributes, information, knowledge, etc., controlled by a firm, enable the firm to conceive of and implement strategies, that improve its efficiency and effectiveness"* can be regarded as the firm's resources.
- Therefore, this research summarise **"financial resources"**, **"product and service range"**, **"human resource"**, **"innovative capabilities"**, **"supply chain system"** and **"brand power"** as the inner resources for E-commerce SCF practice.



4. CASE STUDY ON JD SCF PRACTICE -INTERNAL DRIVERS

VRIO Framework

Financial Resource (FR)

3 categories as the finance source for doing SCF business: 1) self-own funds 2) Cooperation funds 3) External financing .
→ V, O

Product & Service Range

9 business sectors of SCF, consumer finance, wealth management, crowdfunding, securities, insurance, payment, financial technology, and rural finance .
→ V, O

Human Resource (HR)

Most workers do R & D, Many high-end talents engaged in high-level leadership positions from other institutions have joined JD Finance, the high rate of job-hopping and liquidity.
→ V, O

Innovative Capabilities (IC)

"Innovative Capabilities" of JD SCF practice are extracted from JD.COM's existing resources with the spirit and efforts of continuous R & D to seek new technology.
→ V, R, I, O

Supply Chain System (SCS)

All the JD SCF products and services are based on the JD supply chain system, providing financing services on/off platform and can accurately access data and information.
→ V, R, I, O

Brand Power (BP)

The brand effect of JD is the soul for JD SCF practice, JD brand (including JD trademark, patent, copyright, and domain name) has the inner concept-"science and technology for beauty, for value". → V, R, I, O

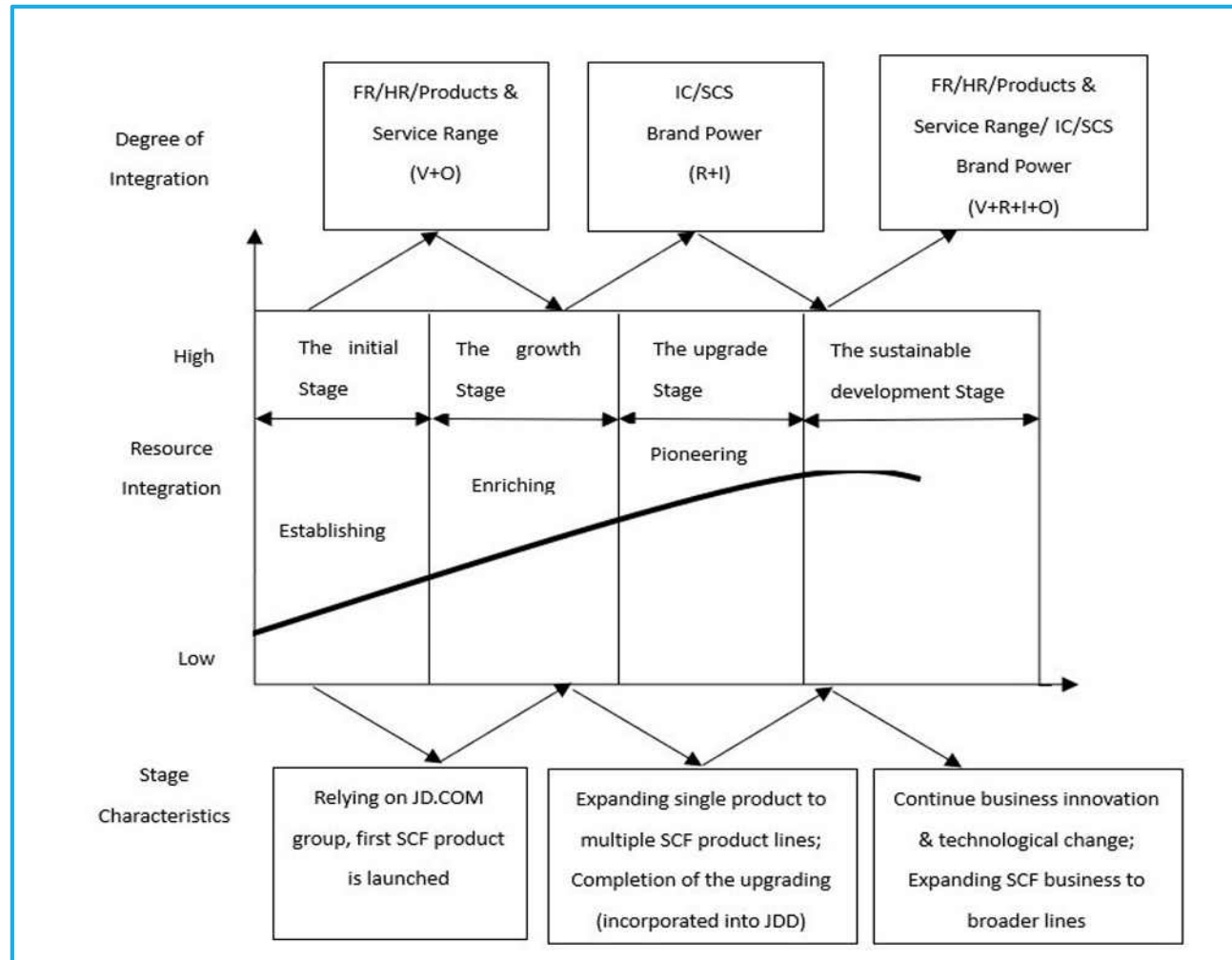
4. CASE STUDY ON JD SCF PRACTICE

-INTERNAL DRIVERS

	Valuable?	Rare?	Costly to Imitate?	Exploited by Organization?	Competitive Implications
VRIO Framework	No	No	No	No or Yes?	Competitive Disadvantage
	Yes	No	No		Competitive Parity
	Yes	Yes	No		Temporary Competitive Advantage
	Yes	Yes	Yes		Sustained Competitive Advantage
Financial Resource (FR)	Yes	No	No	Yes	Competitive Parity
Product & Service Range	Yes	No	No	Yes	Competitive Parity
Human Resource (HR)	Yes	No	No	Yes	Competitive Parity
Innovative Capabilities (IC)	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
Supply Chain System (SCS)	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
Brand Power (BP)	Yes	Yes	Yes	Yes	Sustained Competitive Advantage

4. CASE STUDY ON JD SCF PRACTICE

-INTERNAL DRIVERS + BUSINESS LIFE CYCLE

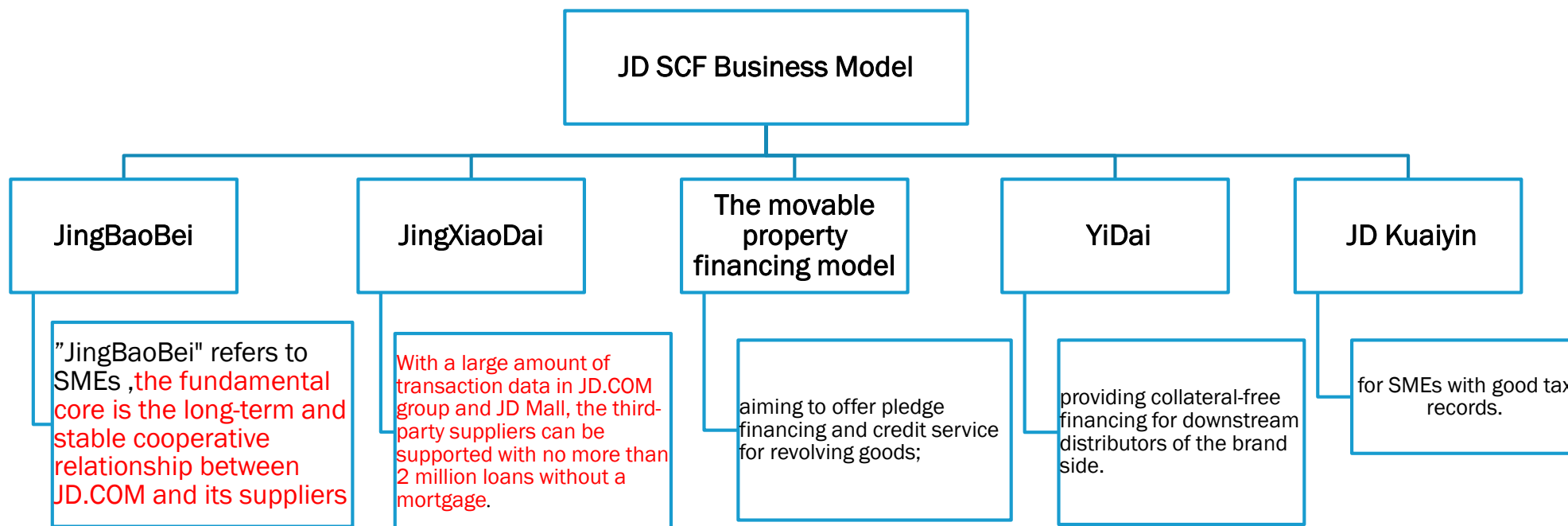


4. CASE STUDY ON JD SCF PRACTICE

-BUSINESS MODEL ANALYSIS FOR JD SCF PRACTICE

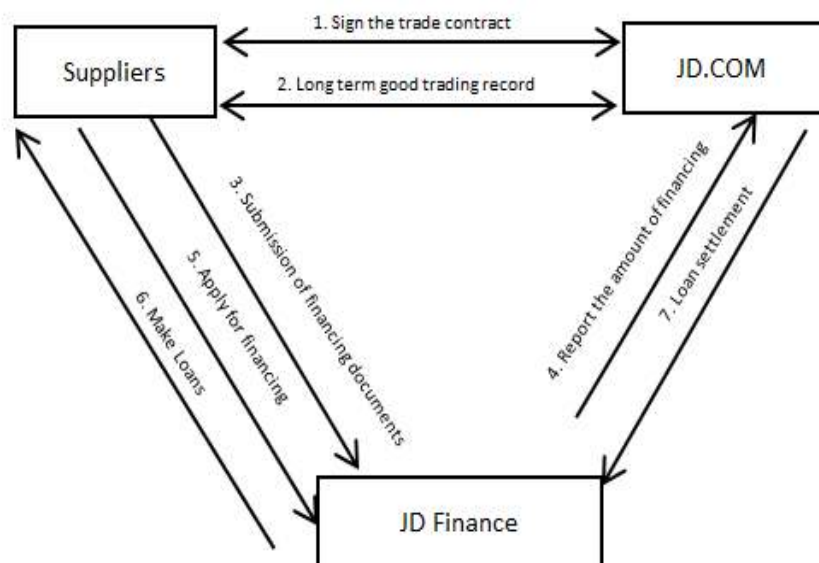
Business Model Analysis

- The main business scope of JD SCF is to offer loans and financing products for upstream suppliers and credit with instalment services for downstream consumers.

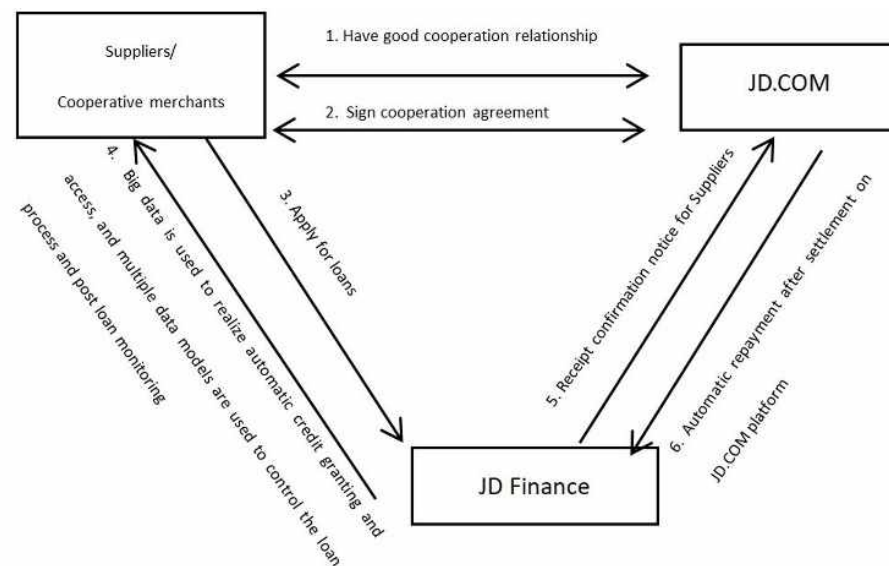


4. CASE STUDY ON JD SCF PRACTICE

-BUSINESS MODEL ANALYSIS FOR JD SCF PRACTICE



"JingBaoBei" mode of JD Finance



"JingXiaoDai" mode of JD Finance

4. CASE STUDY ON JD SCF PRACTICE

-BUSINESS MODEL ANALYSIS FOR JD SCF PRACTICE

Business Model Analysis

- *After the transformation and upgrading into JDD in 2018, the development strategy of JD SCF practice has changed.*
- *The upgraded JDD prefers to combine as a "Finance + Technology + Digitisation" company.*
- *JDD incorporated JD finance into its command as a sub-business module and continuously adhered to the financial business through providing various SCF-related services or products.*
- *The transformed JDD backs technology and digitalisation power to create a new grantee mechanism of digital economic growth.*
- *The original core business "B2B & B2C" has also changed to "T2C & T2B & T2G".*

4. CASE STUDY ON JD SCF PRACTICE -CASE DISCUSSION

*Question 1: Why SCF adoption is needed on E-commerce of JD.COM?
(The drivers)*

External Drivers: based
on PEST analysis

The PEST analysis shows that the external drivers relate to the stable and rapid-developed political, economic, social and technological environment. It involves the increased financing needs, the social changes brought by the Internet, the improvement of the social credit system, and the continuous new technology innovation.

Internal Drivers: based
on VRIO analysis

6 inner resources of "financial resources", "product and service range", "human resource", "innovative capabilities", "supply chain system", and "brand power" are examined through VRIO model.

The VRIO model points out that "innovative capabilities", "supply chain system", and "brand power" are the inner drivers for maintaining JD SCF practice's sustained competitive advantages.

4. CASE STUDY ON JD SCF PRACTICE -CASE DISCUSSION

Question 2: What is the role of SCF in E-commerce of JD.COM?

Before 2017: SCF as a Core Financial Business Unit

Before the restructuring of JD Finance in 2017, **SCF was developed as the core business unit of JD.COM**. The fundamental SCF business offered by JD involving loans, financing services and instalment services. All these SCF practice **play as the specialised financial optimisation tool** to solve SMEs' capital shortage problems in the supply chain and form the main component as the core business unit.

After 2017: SCF as a Financial Optimisation Mechanism

After the restructuring in 2017, JD Finance, as a sub-business modular, was merged into JDD. **The upgraded JDD as an SCF guarantee mechanism based on an independent organisation provides comprehensive digital solutions**. With the introduction of new technology, the combined power of **"Finance + Technology + Digitisation" has been formed**. Multiple programmes like ToF, ToB, and ToG are evolved to further promote JD SCF practice's sustainable development.

5. CONCLUSION

Research Summary

- *The development of the Internet and information technology has boosted **SCF as a new financial approach**.*
- *In E-commerce, the **SCF led by E-commerce has also emerged**.*
- *However, there exists the situation of **non-clearly delimiting** the role of SCF played on E-commerce.*
- ***For deeply examining the SCF role with its drivers and functions** on sustainable development on an E-commerce platform, this paper takes Chinese JD with its SCF practice as the case to research from the view of competitive advantage.*
- ***The PEST analysis used for detecting external drivers, and the VRIO model pointed out for internal drivers** ("innovative capabilities", "supply chain system", and "brand power").*
- *For the definition of the SCF role, this paper regards SCF playing **a dual role** on JD E-commerce as both "core financial business unit" and "financial optimisation mechanism", along with the progression of development.*

5. CONCLUSION

Research Limitation

- *This paper extensively uses indirect data for a single case analysis and is limited to a particular E-commerce industry in China.*
- *It does not involve too much comparative analysis with other similar topics.*
- *As a new way of financing innovation, SCF should not be restricted by regional dimensions.*

Thank you~!