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[Review] A Study on the Change of the Payments System : Focusing on the Strategies of Distribution Companies and Fin-tech Companies

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Abstract

Purpose: The purpose of the study is to examine how payment systems for traditional distribution channels pursue changes and how they collaborate in-depth with fintech companies. This study examines the changing payment system through the strategic partnership between distribution companies and fintech companies. **Research Design, Data and Methodology:** The study conducted research using a variety of secondary materials and existing literature and also utilized the interview method. More specific and in-depth research is conducted through various literature studies and secondary data. **Findings and Results:** The findings of the study are as follows. First, distributors have occasionally directly adopted simple payment systems due to changes in payment systems as a result of online advances. Second, distributors were found to collaborate with fintech companies when not directly using simple payment. **Conclusions:** Such maneuvers by distributors are aimed at first, providing convenience and simplicity for consumers. Second, developing the ability to apply big data for accumulating consumer information and third, producing a customer lock-in effect by reducing the fees charged for existing payment services. The present study will provide many domestic and international distributors with a new perspective and practical implications in terms of the distribution and finance industries.

Keywords : Payments System, Fin-tech, New Trade, Distribution Companies, Fin-tech Companies

JEL Classification Code : M1, M10, M15, M16, M19

1. Introduction

1.1. The Change of New Distribution

While keywords such as AI, big data, blockchain technology, cryptocurrency, and the Internet of Things (IoT) have come to the fore as topics of conversation, the distribution industry has experienced significant changes thanks to a variety of cutting-edge technology (Ahn, 2020; Kim & Lee, 2018; Zheng et al., 2018). In particular, outdated finance and distribution systems have undergone

huge changes in the past decade by utilizing 4th Industrial Revolution technologies. A major example is none other than the company Alibaba. Alibaba started off as an e-commerce company in 1999 but soon grew into a leader in the online distribution market after overcoming China's outdated finance system by developing Alipay in 2004 (Kim, 2020). Subsequently, the company supported mobile payment systems using the dissemination of smartphones, and on this basis, grew into a huge global company, selling personalized financial products by accumulating and utilizing on- and offline big data (Schmuck & Benke, 2020).

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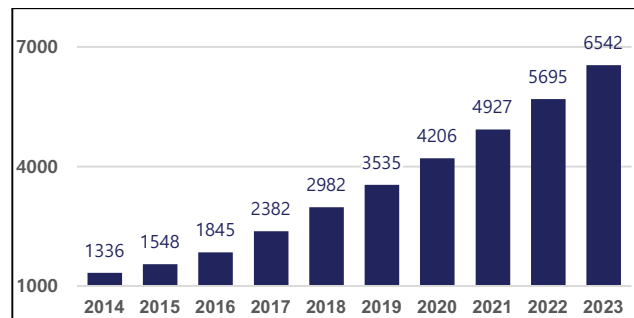
As demonstrated, distribution is transforming from the traditional form of distribution in the past into the distribution systems of ‘new retail’ where customers can make purchases through easy payment beyond on- and offline boundaries whether they’re at home or abroad. The dissemination of the internet and smartphones has enabled the growth of global e-commerce, and now the time has come for the distribution industry to transform into ‘new retail’. The Korean e-commerce market has undergone rapid changes since the 1990s (Tsagkias et al., 2021). Starting off a discussion on the developments of e-commerce since the 1990s, they dealt with issues such as plans to revitalize e-commerce, payment systems, consumer protections, as well as issues like legislation and standardization. In the mid-1990s, the Korean e-commerce market began developing as online markets such as Gmarket, 11Street, and Interpark, and with the introduction of the iPhone in 2010 as well as the dissemination of smartphones, social commerce apps like Coupang, TMON, and WeMakePrice began appearing. By 2014, the market size of social commerce exceeded 50 billion KRW, and by 2020, companies started introducing early morning delivery services like Emart’s Sseuk Delivery as well as those by newly rising companies like Market Kurly and Oasis. In particular, COVID-19 further accelerated the advancement and expansion of e-commerce (Abdelrhim & Elsayed, 2020), with competition intensifying and the methods and forms of e-commerce becoming more elaborate (Babenko et al., 2019). In an environment of new retail, how did a company like Alibaba take the initiative to lead the 4th Industrial Revolution while innovating? The present study examines domestic and international distribution companies and the growth process and strategy for the finance company Toss from a perspective of finance and distribution. The study then considers implications for Korean companies. In particular, the case of Toss—a mobile fintech company—reveals implications for seeking an innovative plan capable of overcoming obstacles as opposed to having businesses restricted due to an outdated system. In this way, the study tries to seek a way to advance business using creative methods through a strategic partnership between Korean distribution companies and the finance industry. In the era of the 4th Industrial Revolution, the transition of the distribution industry to ‘new retail’ has been somewhat delayed, but nevertheless it is an absolutely necessary element. If Korean companies with their excellent human resources and technological advantages can actively utilize these technologies and develop business models, they will be capable of growing into global companies by creating profits not just in the domestic market but also in overseas markets.

In Korea, credit cards are active, so no company has dominated both online and offline distribution markets

centered on fintech like Alibaba in China. However, with the development of fintech, payment and settlement services have developed, and competition for simple payment is gradually intensifying. In addition to Kakao Pay and Naver Pay, various types of simple payment systems such as Coupang Pay, L Pay, and Smile Pay have been released and are fiercely competing. In February 2015, it started offering Toss, a simple remittance service. Viva Republica became a unicorn company with a corporate value of more than 1 trillion won in 2018, more than three years after its foundation.

2. Change and Expansion of the Distribution Industry

2.1. The Market Size of Global E-Commerce



Source: Statista (2021)

Figure 1: Net Revenue in Billion U.S dollars

According to a study by Statista, annual turnover started off as 1336 billion in 2014, with predictions going as high as 206542 billion. Such data now serves as an essential chance for internet vendors to grow through the use of an interface on the World Wide Web. Such statistical forecast figures show how fast the B2C e-commerce market has advanced as well as its future growth potential. Additionally, the e-commerce market functions as data that shows how trade has changed and how it will change in the future terms of international trade.

2.2. Strategic Alliance with Financial Institutions

“New Retail” could be explained as a concept that provides services encompassing the online market, the offline market, as well as distribution systems (Silva, Hassani & Madsen, 2020; Treadgold & Reynolds, 2020).

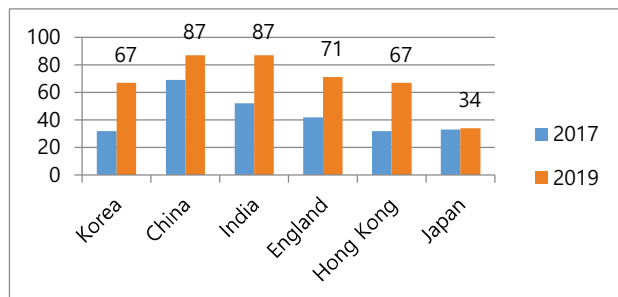
Such a concept of new retail can be found in the strategic alliance between distribution and finance, with Alibaba serving as a good example. Thanks to its success in the fintech field, Alibaba recorded a market capitalization of 569 billion USD (approximately 682.8 trillion KRW) in

2019 despite China's economic downturn and thus grew to be a huge global company ranked 6th in the world in terms of market capitalization following Apple, Microsoft, Google, Amazon, and Facebook. With the emergence of the fintech concept, many distribution-related companies started changing their third-party payment methods.

3. The Fintech Industry and Simple Payment Services

According to Mok (2015), the beginning of fintech was in the form of electronic finance that increased the level of convenience for users by having ICT-based technology assist finance when users use a variety of financial products and services in everyday life (Neirotti & Pesce, 2019). Major examples include online banking as well as the home trading system (HTS) of securities firms. This type of electronic finance took the form of IT companies providing relevant ancillary services under the lead of finance companies whereas fintech can be differentiated in that it encompasses cases that involve IT companies actively making entry into the established domains of the finance industry. If electronic finance falls under 'sustaining innovation', which supports the development of the existing finance industry, fintech falls under 'disruptive innovation' wherein changes are made to the value chain of the finance industry (Kivimaa et al., 2021; Jang & Jeon, 2016; Poon et al., 2020).

Existing electronic finance was led by finance companies and banks based on desktop PCs (Frost et al., 2019), whereas fintech electronic finance started off with startups like Toss playing a central role based on mobile devices, with developments now taking the shape of IT companies delving into financial services (Chung & Kim, 2020). In particular, the largest field in fintech is simple payment systems. In the distribution industry, the field of payment also involves collaborating with the finance industry (Mosteanu & Faccia, 2021; Ali et al., 2020; Khan et al., 2022; Anifa et al., 2022).



Source: Ernst and Young (2019)

Figure 2: Fintech Adoption Index

According to the Ernst and Young' report (2019) about global Fintech Adoption Index, the Financial Services Commission reported that Korea's fintech introduction index doubled to 67% in 2019 (32%) according to a report released every other year. This survey was conducted on only six countries in 2015, and Korea has participated in the survey since 2017. The figure is the same as Singapore and Hong Kong, and is similar to the UK (71%), which is considered an advanced fintech country. Emerging countries such as China (87%) and India (87%) have a high fintech introduction index, while countries with traditional financial maturity such as the United States (46%) and Japan (34%) have a low fintech introduction index. The consumer awareness of fintech was high in most fields such as remittance and payment (96%), insurance (86%), investment (78%), and loans (76%). As shown in the graph, fintech introduction is increasing in each country.

3.1. Simple Payment Service Launchings in the Distribution Industry

Simple payment services in the distribution industry are now essential. In May 2020, the Bank of Korea's payment and settlement report stated simple payments drastically increased from 2.1 million cases (64.5 billion KRW) in 2016 to 14.5 million cases (449.2 billion KRW) in 2020. The launching of major simple payment services in the distribution industry is rapidly underway. Hyundai Department Store Group launched 'H.Point Pay', its simple payment system, in April 2020, while Shinsegae Group launched 'SSG Pay', the first simple payment system in the distribution industry, in July 2015. Lotte Shopping launched 'L.Pay'; E-Land Group launched 'E Pay'; and Coupang launched 'Rocket Pay'.

About five months after Toss' official launch, Viva Republica went from simple remittance service to launch a simple payment service called TossPAY.

In the FinTech industry, simple payment service is a service that allows payments to be made easily using wireless terminals such as smartphones or tablet PCs (Woo & Cho, 2017).

SmartPay is often referred to as SmartPay because it is a smartphone that is mainly used (Sparer et al., 2019).

PayPal and Apple Pay are widely used in the U.S., while Alipay and WeChat Pay are widely used in China. In addition to Toss Pay, services such as Samsung Pay, LG Pay, Naver Pay, Kakao Pay, Payco, and SSG Pay are commercialized in Korea. The industries and characteristics of domestic key players are as follows. In particular, there are Lpay, LG Pay, and Shinsegae's SSG Pay as simple payments in the distribution industry.

Table 1: Payments Service of Major Companies

Payments Service	Company	Industry	on	off	Launching Time
Kakao Pay	Kakao	IT	O	O	2014.09
Never Pay	Never	IT	O	X	2015.06
Samsung Pay	Samsung	Manufacturing	O	O	2015.08
Toss Pay	Toss Payments	IT	O	X	2015.08
Payco	NHN Entertainment	Game	O	—	2015.08
LG Pay	LG	Manufacturing	O	—	2017.06
SK Pay	SK Palnet	Tech	O	—	2015.04

Source: Each Company's Homepage (2022)

Samsung Pay was launched in 2015 and led the offline simple payment market. It expanded its dominance in the online market by mounting it on mobile phones. There is an interworking service with T-money and it is affiliated with some credit card companies. Naver Pay is leading the online simple payment market by providing one-stop shopping through Naver search based on portal services. It is considering strengthening the linkage of financial services in connection with Mirae Asset Daewoo. Kakao Pay introduced a simple payment service for the first time in Korea. There is a payment and remittance function in connection with Kakao Talk messenger, and users have been expanded through a gift function. It also promoted a service linkage plan with Kakao Bank and linkage with Alipay, China. Payco is used mainly for user-centered services. It conveniently provides financial services such as account inquiry, card inquiry, and credit management to users at the same time. In the past, LG Pay tried to promote simple payment services for LG smartphone users, but it has become difficult to expand the number of users as LG has closed its mobile phone business. SK Pay was 11 Pay in the past, and offline payments are only available at some affiliated stores. SSG Pay is based on distribution businesses operated by department stores and marts. It is expanding the number of users to E-Mart or Shinsegae Department Store users with reserves and simple pay functions. L Pay is also expanding its users based on the distribution industry that operates Lotte Department Store and Lotte Mart, and is engaged in linked marketing with its credit card.

3.2. Simple Payment Service Launchings in the Distribution Industry

The reason why the distribution industry is introducing its own simple payment service is that the market size is growing rapidly. Both the amount of simple payments used and the number of uses recorded the highest ever since related statistics were prepared in 2016. Lotte Elpay, which was released in 2005, surpassed 10 million, GS Pay, which

Table 2: Payments Service of Distribution Companies

Payments Service	Company	Industry	on	Off	Launching Time
SSG Pay	Shinsegae	Distribution	O	O	2015.07
L. Pay	Lotte Shopping	Distribution	O	—	2016.07
Cou-pay	Coupang	Distribution	O	—	2016.03
E-Pay	E-land Group	Distribution	O	—	2021.06
H-Pay	Hyundai Department Group	Distribution	O	—	2020.04
Daangn Pay	Daangn Market	Distribution	O	—	2021.11
Smile Pay	E-bay Korea	Distribution	O	—	2016.07

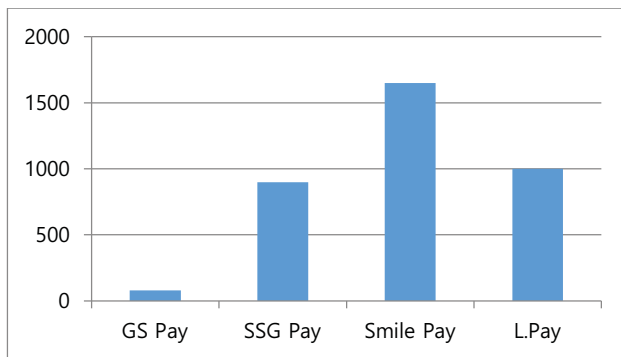
Source: Each Company's Homepage (2022)

was released in 2021, and SSG Pay, which was released in 2015, exceeded 9 million. In 2014, Gmarket's Smile Pay recorded the largest growth, exceeding 16.5 million. The rapid growth of simple pay in the distribution industry is due to the fact that simple pay services are not only convenient for customers but also a way to grow for companies. If you register your own pay from the customer's point of view, you can simply make one-stop payments with fingerprints, face recognition, and patterns without having to go through several stages of authentication. From the perspective of companies, services scattered here and there can be gathered in one place to expand integrated services of affiliates to induce consumers to repurchase. In particular, from the perspective of retailers, the possibility of re-purchase of customers who have registered their own pay increases, which can have a lock-in effect and can secure loyal customers by introducing customers through their own simple pay.

Shinsegae Group launched SSG Pay in 2015 for the first time in the department store industry, which can be used by affiliates such as Shinsegae Department Store, E-Mart, and Traders. Previously, the E-Mart app had functions such as accumulating points and providing discount coupons, but it was impossible to purchase and pay for products. However, if E-Mart Pay is introduced, payments will be made at online apps and offline stores. According to the Korean Intellectual Property Office, E-Mart applied for the trademark right of 'E-Mart Pay' last month. An E-Mart official said, "Since there has been no payment function in the E-Mart app, we are applying for a trademark and planning for the future," adding, "We are still planning the scope and service stages, including integrated payments from group companies." Shinsegae Group, which owns E-Mart, has acquired eBay Korea and is also preparing membership services that integrate affiliates such as SSG Dotcom and Starbucks. In the future, the convenience of consumers will be greatly increased when Pay, which enables integrated payment, is released.

According to Chosun News (2021), Hyundai Department Store Group also launched H.Point Pay (H Point Pay), an integrated simple payment service. H point pay' simple payment service was introduced in H Mall and Hyundai Department Store.

It will be applied to eleven online malls of Hyundai Department Store Group and plans to expand it to more than 1,700 offline stores in the group, including department stores, duty-free shops, Livart and Hansom. GS Retail has also launched 'GS Pay' services that can be used online, such as GS Shop and GS Fresh Mall, as well as offline stores such as GS25 and GS The Fresh. Market Kurly, which is preparing to be listed, is also preparing its own pay business by acquiring an electronic payment agency (PG) company last year. Lotte Shopping has released L.PAY, which can be used in department stores, marts, and Toys Russ. E-Land, which has food and fashion affiliates, also plans to release "E Member," an integrated membership app for E-Land affiliates, starting this month, and introduce "E Pay," which allows self-payment in the second half of this year.



Source: Each company's IR report(2022)

Figure 3: Number of Payments Service Users

According to the graph above, the number of users of Lotte's simple payment service 'L Pay' and Smile Pay in G Market has already exceeded 10 million. As such, it can be seen that the number of users of its own simple pay is increasing in the distribution industry.

3.3. The Reason behind the Launching of Simple Payment Services by Distribution Companies

There are largely three reasons behind the launching of simple payment systems in the distribution industry. First, the use of simple pay serves as an extremely simple and convenient means of payment for the MZ generation who make payments using mobile devices beyond purchases online. For the MZ generation, simple payment systems are already an extremely familiar means of payment. Furthermore, when paying online or by using a mobile

device, the purchase information of the consumer is automatically stored. This is turned into and accumulated as big data and serves as the foundation behind marketing methods and business strategies. Furthermore, point rewards and prepaid systems for frequently used simple payment services can keep consumers on the company's platform. This leads to a lock-in effect, which involves consumers returning to use the simple payment system of a platform in order to enjoy the various benefits of that platform. L.Pay, the simple payment system of Lotte Members, can be used in on- and offline stores affiliated to various Lotte Affiliates. Once a customer's credit card is automatically registered to L.Pay, it can be used in all L.Pay affiliated stores, offering not just a convenient service but also points that can be used like cash when L.Points are saved depending on the payment amount. In the case of Coupang, the company undertook a marketing campaign that allows customers to save 5% of their payment amount if they use Coupay after signing up for Rocket Wow. Furthermore, their prepaid card can be used like cash by reloading money into it in advance like the Starbucks card. This is a strategic means of further enhancing the lock-in effect. The independent simple payment services of distributors can reduce the fees charged for existing payment services. According to a manager at SSG, earnings from SSG payment fees are listed as miscellaneous sales on 2021 the company's financial statements. The results of such an analysis show that the launching of simple payment services by distributors is a strategic response for not just providing consumers with convenience but also securing big data, achieving a lock-in effect, and reducing fees.

4. Strategic Partnerships with Fin-tech Companies

The simple payment systems of distributors are limited in that they can only be used on their own platforms. For this reason, many distributors overcome this limitation by entering into partnerships with fintech companies that build simple payment systems, a payment gateway. An example of overcoming such a limitation through a strategic partnership is Toss, a major fintech company.

Toss does not offer offline payment services, but only online payment services.

Toss makes the payment through membership verification using the app notification, and even if the user does not have money, it is charged directly through the connected account.

When making a payment, enter Toss's password or complete the payment through fingerprint or face ID authentication process.

Viva Republica describes Toss's use of payment services in seven categories. In the case of Toss, a fintech company, it has a very advantage in remittance services, but is inferior in payment services. In particular, it has formed partnerships with Market Kurly in the distribution industry and Gmarket, Auction, G9, 11th Street, GS Shop, Interpark, and others. These companies are especially online e-commerce platforms, so Toss is a very optimized environment to expand users. In addition to this partnership, Toss has made other efforts to increase users. Toss' payment service does not pay offline payment services, and Toss Money Card has been released since March 2019 for offline payment. Toss money card is in the form of a prepaid card, and the product can be issued without annual fee to users who have at least one account among Toss subscribers aged 17 or older. About a year after the launch of Toss Money Card, a form of prepaid card, "Toss Credit Card" in the form of a credit card will also be issued through a partnership with Hana Card. However, it was difficult to overcome the inferiority of payment services and began to form strategic alliances with other companies. For example, cooperation with distributors can be examined through the case of a strategic partnership of Toss of fintech companies. Toss' strategic partnership is very broad. Among them, e-commerce distributors such as G-Market, Auction, 11th Street, and Interpark, and distributors such as Musinsa Market Kurly and Lotte Duty Free can be noted. This partnership with distributors is because the interests of distribution companies and Toss match.

4.1. Strategic Alliance with Fin-tech Companies and Distribution Companies

The case of strategic partnership between distribution companies and IT companies was examined through the case of partnership of Toss, a fintech leader.

Table 3: List of Members of Toss Payment Service

Category	The List of Affiliated Companies
Online Commerce Platform	G-market, Auction, G9, 11st, GS shop, Interpark, Qoo10, 1300K
Food	Baemin, Market Kurly
Close to Life Service	Twitch, Resin Comics, Africa TV, Spoon Radio
Fashion	Musinsa, style share, Wconcept, WIZWid, Fashion Plus.
Game	Steam, Nexon, NC Soft, Riot Games Korea, Pearl Abyss, Epic Games
Travel	Lotte Duty Free, Myreal Trip, T-way Airlines, Jeju Air
Brand online Mall	Kyobo Bookstore, AP Mall, Mobile T-Money, J.ESTINA.

Source: Toss Homepage (2021)

4.2. Strategic Partnerships with Fin-tech Companies

Toss's simple payment service sector actually has a low market share.

About 87% of the mobile payment market share is led by some companies such as Naver Pay, Samsung Pay, Payco, Kakao Pay, and SK Pay (formerly 11 Pay).

The reason for the low share is that Toss' main area is "simple remittance" service, and there are many competitors in the "simple payment" sector such as Toss Pay, and there is no strong incentive to attract financial consumers. In the case of Toss pay, unlike other competitors, the weakness is that it does not provide offline payment services.

Users can make offline payments by using Toss Money Card and Toss Credit Card, but in the case of payments using such cards, they do not match the trend of "simple payment" in the fintech industry. In order for Toss to develop in the payment settlement sector, it will be necessary to add offline payment services and introduce differentiated payment benefits from competitors.

5. The Future of Distribution and Fin-tech Finance Companies

Based on the analysis so far, the use of simple payment systems by distributors is now essential. The distribution industry has already transitioned to new retail from distribution methods of the past. For distributors and traders, contracts will transition to smart contracts, and payment for distributors will further move toward simple payment systems. Distributor Companies and IT fintech companies can complement each other. And their Alliance and collaboration seems essential.

Many distributors have already directly adopted simple payment systems due to online advances. Companies that haven't directly adopted simple payment systems sometimes enter into strategic partnerships with fintech IT companies like Toss and try a variety of methods to reduce fees that were charged for existing payment services.

Such a response by distributors can provide a convenient and simple means of payment and reduce fees for the MZ generation who prefer mobile payment not just for online purchases (Bhardwaj et al., 2019).

Moreover, turning consumer payment information from online and mobile payments into data is an extremely important element when corporations establish marketing strategies and sales strategies (Das & Das, 2020). Lastly, point rewards and various benefits encourage consumers to keep using the same simple payment system after using it once, creating a lock-in effect. Distribution and finance have become industries that must advance together in collaboration rather than as separate industries.

Viva Republica, which operates Toss, was able to grow into a leading company in the domestic fintech industry by making use of the company's own core competency of 'easy money transfer' in step with the flow of development of the fintech industry post the 2010s. Subsequently, it added additional financial services such as payment, card management, account management, insurance management, and credit management and thus made the transition to a comprehensive financial platform. During this process, an organizational structure and corporate culture that were different from those of established companies made it possible to raise the capacity of the company's human capital, thereby functioning as the driving force behind the company's growth. Through a series of processes, Viva Republica was able to grow into the leading fintech company in Korea, but the overall innovation of the finance sector and advances by its competitors imply that the company must further innovate. For this reason, many fintech corporations including Toss must expand their scope through strategic partnerships with various distributors. The present study is expected to provide many domestic and international distributors with implications for the future of distribution and finance.

References

- Abdelrhim, M., & Elsayed, A. (2020). The Effect of COVID-19 Spread on the e-commerce market: The case of the 5 largest e-commerce companies in the world. *Journal of Economic and Administrative Science*, 36(20), 105-122.
- Ahn, S. J. (2020). Three characteristics of technology competition by IoT-driven digitization. *Technological Forecasting and Social Change*, 157(1), 1-15.
- Ali, O., Ally, M., & Dwivedi, Y. (2020). The state of play of blockchain technology in the financial services sector: A systematic literature review. *International Journal of Information Management*, 54(3), 102199.
- Anifa, M., Ramakrishnan, S., Joghee, S., Kabiraj, S., & Bishnoi, M. M. (2022). Fintech Innovations in the Financial Service Industry. *Journal of Risk and Financial Management*, 15(7), 287, 1-19.
- Babenko, V., Kulczyk, Z., Perevosova, I., Syniavska, O., & Davydova, O. (2019). Factors of the development of international e-commerce under the conditions of globalization. *InSHS Web of Conferences*, 65.
- Bhardwaj, G. N., Sinha, G., & Pal, S. (2019). FinTech and the younger generation. IUP. *Journal of Information Technology*, 15(1), 16-33.
- Chung, S. J., & Kim, S. I. (2020). A study on the user experience of mobile Fintech service in Z generation-Focused on KakaoPay and Toss. *Journal of Digital Convergence*, 18(1), 315-320.
- Das, A., & Das, D. (2020). Perception, adoption, and pattern of usage of FinTech services by bank customers: Evidences from Hojai District of Assam. *Emerging Economy Studies*, 6(1), 7-22.
- Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy*, 34(100), 761-799.
- Jang, W. S., & Jeon, H. Y. (2016). The Rise of FinTech and Changes in the Financial Industry. *VIP Report*, 648(1), 1-13.
- Khan, M. S., Rabbani, M. R., Hawaldar, I. T., & Bashar, A. (2022). Determinants of behavioral intentions to use Islamic financial technology: An empirical assessment. *Risks*, 10(6), 1-114.
- Kim, C. E., & Lee, J. H. (2018). Trends of big data and artificial intelligence in the fashion industry. *Journal of the Korean Society of Clothing and Textiles*, 42(1), 148-158.
- Kim, J. S. (2020). Alibaba, Leading the Fourth Industrial Revolution: FinTech and New Retail Perspectives. *Korea Business Review*, 24(2), 73-99.
- Kivimaa, P., Laakso, S., Lonkila, A., & Kaljonen, M. (2021). Moving beyond disruptive innovation: A review of disruption in sustainability transitions. *Environmental Innovation and Societal Transitions*, 38(1), 110-126.
- Lee, S. J. (2019). An Analysis of Factors Influencing Switching Intention toward Online Platform-based Easy Payment Service with Moderating Effects of Policy Expectations: Focusing on Kakao Pay. *International Journal of Contents*, 19(5), 426-442.
- Mok, S. H. (2015). *Fintech Story Conquering One Step Ahead*, Hans Media, Korea
- Mosteanu, N. R., & Faccia, A. (2021). Fintech frontiers in quantum computing, fractals, and blockchain distributed ledger: Paradigm shifts and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 19.
- Neirotti, P., & Pesce, D. (2019). ICT-based innovation and its competitive outcome: The role of information intensity. *European Journal of Innovation Management*, 22(2), 383-404.
- Poon, J., Chow, Y. W., Ewers, M., & Ramli, R. (2020). The role of skills in Islamic financial innovation: Evidence from Bahrain and Malaysia. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 1-21.
- Silva, E. S., Hassani, H., & Madsen, D. Ø. (2020). Big Data in fashion: Transforming the retail sector. *Journal of Business Strategy*, 41(4), 21-27.
- Schmuck, R., & Benke, M. (2020). An overview of innovation strategies and the case of Alibaba. *Procedia Manufacturing*, 51(1), 1259-1266.
- Sparer, D., Deeken, H., Künsting, B., & Sprenger, P. (2019). Smart Contracts und Smart Payment im Farming 4.0. *Digitale Dienstleistungs innovationen: Smart Services agil und kundenorientiert entwickeln*, 22(1), 445-471.
- Treadgold, A., & Reynolds, J. (2020). *Navigating the new retail landscape: A guide for business leaders*. Oxford University Press.
- Tsagkias, M., King, T. H., Kallumadi, S., Murdock, V., & de Rijke, M. (2021). Challenges and research opportunities in ecommerce search and recommendations. *InACM Sigir Forum*, 54(1), 1-23.
- Woo, G. I. & Cho, J. H. (2017). Fintech-based Simple Payment Service, Factors Study on the Intention of S Continuous Use. *Information Systems Research*, 26(3), 25-46

Zheng, Z., Xie, S., Dai, H. N., Chen, X., & Wang, H. (2018).
Blockchain Challenges and Opportunities: A Survey.

International Journal of Web and Grid Services, 14(4), 352-375.