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A Study on Space Utilization according to Changes in Non-face-to-Face Consumer Use: Focused on bank offices

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Abstract

Modern financial services go beyond the stage of internet banking, and new concepts of financial transactions such as Internet of Things, mobile banking, electronic payments, and fintech have emerged. As a result, banks are less influential in financial transactions, and changes are being demanded. In the present era, the basic business of banks has decreased, and it is transforming into a space where both consumer finance work and reside. The bank office stands for the brand image of the bank, and it is represented by trust with customers in the basic business of financial transactions, and the rise in real estate value is a natural social phenomenon due to the nature of the location and location of real estate owned by the bank. The business method and space of the bank office that meets the new paradigm of the modern society is an inefficient space only for the convenience and rest of consumers, but it must be used as a variety of spaces suitable for the region to increase the functional value of the bank office. Through this study, as a convenience space for consumers, various service facilities should be introduced to understand the characteristics of the region as a convenience space for consumers, and the bank office should be improved as a complex service space for local residents.

Keywords: Bank, bank office, consumer financial environment, complex space, finance, internet bank, financial service, non-face-to-face transaction, fingerprint authentication, iris authentication, vein authentication, voice authentication, artificial intelligence, big data, kakao bank, k bank, internet of things, Mobile banking, electronic payment, fintech, financial transaction, convenience space, block chain, digital currency

1.Introduction

In modern life, as financial needs and consumption patterns diversified according to the individual needs of consumers, a new lifestyle began to be pursued. In the case of financial transactions, face-to-face transactions

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decreased, and non-face-to-face transactions of new concept technologies increased. It is shrinking. Due to this, the space of the bank office is used inefficiently, and the work space is reduced and used as a customer counseling room or a VIP space frequently. The frequency and influence of bank offices are gradually decreasing, and a space to accommodate existing financial services and various functions using bank offices is needed. In addition, in terms of the asset value of a bank, bank offices are highly evaluated in terms of location, and bank offices in each region represent the corporate image of the bank. The local bank office is the image of the bank closest to the consumer, and is the best advertisement that can be approached friendly to the consumer. This study is a study on the use of space in bank offices in response to changes in the consumer financial environment. This study presents the research background and purpose, and the scope and method of the research. After examining the changes, it analyzes the changes in the consumer financial environment and the factors of change in today's financial transactions. In addition, in order to analyze the change and spatial characteristics of the bank business place, we understand the bank business place and look at the change of the bank business place according to the consumer financial environment by dividing it into environmental change and spatial change. The present situation of the bank business site is investigated, and a comprehensive analysis is conducted to propose a conclusion on the space utilization of the bank business site according to the change in the consumer financial environment.

2. Changes in the financial environment and changes in the consumer financial environment

2.1. Changes in the financial environment

Prior to the implementation of interest rate liberalization, the government raised low interest rate funds and regulated interest rates in order to distribute them to support projects for economic development, but artificial funds were allocated in excess demand for high growth investment in high-quality industries at low interest rates. Occurred[1]. However, interest rate liberalization began in December 1988, and in August 1991, the government and the Bank of Korea established and announced a plan to promote interest rate liberalization in the fourth stage to abolish the maximum rate regulation on loan interest rates and long-term interest rates for maturities of 2 years or longer. There were widespread measures to liberalize interest rates[2]. Since then, the downward stabilization of interest rates has continued in the financial market, the linkage between financial markets has increased, and the price function of interest rates has also improved. As a result, individuals' preference for high-yield savings products increased, increased funding capacity due to the increase in financial institution receipts, and increased dependence on borrowing from financial institutions. In addition, the necessity of introducing a new type of system in accordance with the interest rate environment has increased for domestic banks[3]. Korea's financial environment has changed rapidly since the 1980s with the progress of financial liberalization and liberalization, and in the wake of the foreign exchange crisis at the end of 1997, it had a great influence on the Korean economy and financial form. In particular, from the perspective of financial institutions, interest in the retail finance sector, which can generate stable profits, has increased, which is expected to be a very important variable when establishing long-term strategies for financial institutions in the future[4]. The financial industry formed a hierarchical industrial structure between large and small financial institutions as insolvent financial institutions were removed from the financial restructuring process after the foreign exchange crisis and superior financial institutions developed into large financial institutions [5]. In the process of restructuring the financial industry, insolvent financial institutions were withdrawn, while superior financial institutions were enlarged through mergers and acquisitions. The enlargement of financial institutions increases the profitability and efficiency of financial institutions and enhances competitiveness through economies of scale. In addition, it provides a cost reduction effect through the expansion of the market power by expanding the customer base and the overlapping store arrangement[6]. On the other hand, depending on the scale, there is a limit to cost reduction and profit enhancement, diversification of business to non-banking sectors, risk of fluctuations in securities prices, and withdrawal of small specialized banks can hinder the autonomous growth of the banking industry[7]. In the era of the 4th industrial revolution, the convergence of finance and information and communication technology opens the era of digital finance, and the Internet is freely available in the palm of your hand. Through this, the technology of mobile, smartphone, non-face-toface authentication, big data, artificial intelligence (AI), blockchain, and digital currency appeared. Among them, non-face-to-face authentication is becoming more important due to the activation of non-face-to-face transactions in financial transactions, and fintech technologies such as fingerprint authentication, iris authentication, vein authentication, and voice authentication are rapidly developing[8]. In addition, a new insurance system is being introduced due to changes in the insurance industry based on AI and big data using computers or artificial intelligence, and deposits and loan systems are being activated by the contributions of K Bank and Kakao Bank as Internet specialized banks. A funding system for blockchain-related startups, an investment management system for customer-tailored asset management services, and a trade finance system were established[9]. It should be promoted to expand the use of various customers by building services for safe and convenient financial transactions, and connection with affiliated companies is also necessary to maintain a wide range of financial transactions. Today, consumers are familiar with online financial consumption and financial transactions. Consumers want to receive various financial services easily, quickly and accurately in the financial business environment due to the change in the way of consumption. Recently, financial companies are paying attention to social marketing from a customer-oriented perspective. Social media marketing is being promoted to use this strategically to obtain the effect of attracting new customers and enhancing product sales, away from the company-oriented view. The trend is to use the company's website and its employees' social media, external brand communication, cafes, and power bloggers' product reviews, regardless of platform type[10].

2.2. Changes in the consumer financial environment

Consumer finance refers to the credit provided by financial institutions through self-financing that consumers need when purchasing consumer goods or services. Consumer finance placed an important weight in the banking business, and afterwards, the implementation of the financial policy and consumer finance adjustment policy was promoted and introduced into the consumer finance policy through the recession and spread widely to other fields[11]. It has changed the form of financial business with technologies such as artificial intelligence and big data that affect the financial industry at a rapid pace, and is expanding the business area of the financial market. The expansion of financial services to which information and communication technologies such as electronic finance, mobile banking, and internet banking are introduced has brought a major change in the financial environment of consumers. Payment, remittance, asset management, and digital currency are possible through mobile, and financial services such as public investment can be conveniently processed on a smartphone. This triggered a financial revolution[12].

3. Changes in the bank office

The main business of the bank is reception and credit, protection deposit, collection, guarantee, trust, trading and lending of securities, and currency exchange. Banking services are changing according to the trend of the times. Recently, as face-to-face transactions have decreased due to the activation of non-face-to-face transactions, the number of bank customers has decreased, and problems such as labor costs and rental fees have arisen. Accordingly, it is evolving into a complex space combined with the contents of the bank and providing new services beyond the role of existing banks to secure potential customers. In recent years, the service for customers has been expanded in the form of business of banks, and the ratio of the service area is wider than that of the business area.

(1) Complex financial store

Financial holding companies and affiliates have begun to introduce them competitively to maximize mutual synergy, and financial consumers can receive one-stop counseling and various services for financial products through complex stores. In addition, by introducing complex financial stores, it is possible to reduce costs due to indiscriminate store expansion.

(2) Convergence, complex smart branch

A bank store that combines digital and analog channels, which is information and communication technology, is placed at the desk of the deposit and withdrawal counter to receive the leading financial services from customers is called a smart branch. Through this, it is possible to apply for electronic finance such as Internet banking and smart banking, as well as work through face-to-face transactions at the bank office, and receive various one-storm services such as report loss of bankbooks, reissue, and security card issuance[13].

(3) Moving bank office

In 2010, as smart banking locations increased, the bank's financial system became more convenient. There have been many bank offices where customers visit without waiting for them to come, and a self-banking role that helps customers handle their own business outside of a fixed frame has also emerged. Along with this, a paperless bank using a tablet PC also appeared.

(4)In-store Branch (Shop in Shop)

Overseas, the concept of a bank office is changed from branch to store, selling various financial products to customers and providing financial services to customers rather than offices. It is intended to provide customized services to consumers through segmentation and specialization of bank offices. By opening an instore branch (shop-in-shop) with high customer power, customer accessibility increases, and the opportunity to visit stores increases, resulting in an effect that connects product sales.

(5) Culture Bank

In collaboration with cultural content companies, it is a cultural activity space where you can not only watch various performances in the bank, but also purchase related products.

(6) Community-based bank office

In order for consumers to freely use bank offices, it is necessary to provide services that provide a rich experience and open appearance that is easy to access. Recently, bank offices are creating a new space for local life as a bank that wants to stay, not just a financial business. Representatively, Umpqua Bank, located in Portland, Oregon, is leading the creation of new values and realizing sustainable growth as a creative brand through "maximization of pleasant experiences". Umpqua Bank operates as a cultural space by holding events such as movie screenings, yoga, and knitting classes at branches for local residents to vitalize the local economy[14]. In 2011 and 2012, Virgin Money of the US Virgin Group opened new banks in the US and UK one after another, showing differences from existing banking operations. New Bank is designed to serve as a shelter for local residents and to form a community, and people can watch banking, drink coffee, chat with neighbors, sit on a comfortable sofa and receive differentiated services such as resident staff and asset management[15]. The domestic bank offices are also transforming into a complex cultural space that is close to the lives of consumers, out of the clerical and hard atmosphere. Woori Bank is planning to serve as a base for the local community network as a "Sarangbang" for local residents and a "Language Institute" for foreign customers as well as a cultural center to break the existing framework and provide differentiated services.

KB Kookmin Bank and Shinhan Bank are using the space as a childcare center or in-house venture training center as an idle store as a local life link. In addition, unmanned parcel delivery boxes are installed in the business site to provide convenience to local residents. In this way, it should be considered that not only consumers but also local residents can freely use the banking office, and provide a variety of experiences and services by giving value to space.

4. Survey and analysis on consumer space use

4.1. Survey summary and analysis method

The purpose of this study is to study and propose alternatives to the changes in the space of the bank business space due to changes in the consumer finance environment. In order to achieve the purpose of the survey, the selection criteria for the survey target were mainly targeting residents of Seoul, Gyeonggi, and Incheon as of 2018, and the survey area was divided into residential, business, and educational areas. The survey targets 57 people in residential areas, 55 people in business areas, and 48 people in commercial areas, and a total of 200 people are selected and targeted for the survey. The statistical processing of the data collected for this study

was analyzed using the SPSS 198.0 program and the AMOS 18.0 program. First, a frequency analysis was conducted to find out the demographic characteristics of the study subjects. Next, Crombach's @ value was calculated to verify the reliability of the measurement variables, and exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed to verify the validity. Finally, a structural equation model analysis (SEM) was conducted.

	Table 1. Contents of questionnaire questionnaire.								
DIVISION	CONTENTS								
1	Analysis of survey subjects by region according to demographic characteristics								
	Selecting the bank's business location, gender, age group, job, etc.								
2	Usage status by region according to the transaction method of the bank office								
	Choice and purpose of the main bank business location, financial transaction method, and preference of financial transaction method								
2	Space recognition and improvement analysis through the use of bank offices								
3	Recognition of space improvement according to the space recognition and use of bank offices								
4	Requirement of complex facility space utilization when using a bank office								
	Culture and exhibition space, convenience space, office support space, social activity-related space								

4.2. Analysis of survey subjects by region that differs from demographic characteristics

As a result of examining the demographic characteristics of the survey subjects by region, by survey respondent area, 57 people in residential areas (28.5%), 55 people in business areas (27.5%), and 88 people in commercial areas (44.0%). When organizing the questionnaire, the analysis was conducted focusing on the selection of the bank transaction location, gender, age group, and occupation.

4.3. Use of complex facility space when using bank offices

In the questionnaire survey on the demand for the use of complex facility spaces in bank offices, according to the response rate of consumers, cultural and exhibition spaces, convenience spaces, office support spaces, social activity-related spaces, and rest spaces were classified. Culture and exhibition space is a space related to the use of arts and cultural facilities, and the living convenience space responds to the demands for use of spaces related to laundry, beauty salons, convenience stores, hospitals, pharmacies, and flower shops for the convenience of local consumers. The office support space is a space for banking, internet, office support, and social activity-related space is a space for community meetings and employment agencies as a community center, and a rest space is a space for children's playrooms, reading spaces, and cafes. As a result, it was organized in response to the demand for facility utilization. This was summarized and referenced for classification of the survey, and consumer responses are as follows.

Table 2. Bank office complex facility space utilization - residential area									
Frequency (rete)									
DIVISION	all	Culture and Exhibition	Living convenience	Office support	Social activities	recess	χ²(p)		

		57(1000)	14(246)	5(88)	4(70)	10(175)	24(421)	
Bank Transaction Location	Neighborhood	39(684)	10(256)	3(7.7)	2(51)	8205)	16(41.0)	
	Near the workplace	10(175)	3(300)	1(100)	2200)	0(00)	4(400)	$\chi^{2}=$ 6.314 p=
Select	Stand out when moving	8(140)	1(125)	1(125)	0(00)	2(250)	4500)	0.612
	man	19(333)	5(263)	2(105)	1(53)	2(105)	9(47.4)	$\chi^{2}=$ 1.248
Gender	Woman	38(667)	9(237)	3(79)	3(79)	821.1)	15(395)	p= 0.870
	20's	7(123)	2(286)	1(143)	0(00)	0(00)	4(57.1)	2_
A go group	30s	19(333)	5(263)	2(105)	1(53)	4(21.1)	7(368)	$\chi^{2}=$ 7.304
Age group	40s	16(281)	2(125)	2(125)	2(125)	4(250)	6(375)	p= 0.837
	Over 50	15(263)	5(333)	000)	1(67)	2(133)	7(467)	0.637
	self-employment	13(228)	5(385)	000)	1(7.7)	2(154)	5(385)	
Job	Public servant, employee, service job	10(175)	2200)	2200)	1(100)	1(100)	4(400)	χ²= 9.295
	Profession	11(193)	0(00)	1(9.1)	1(9.1)	2(182)	7(636)	p= 0.678
	Full-time housewife, others	23(404)	7(30.4)	2(87)	1(43)	5(21.7)	8(348)	0.078

Table 3. Bank office complex facility space utilization - business area

Frequency (rete)

DIVISION		all	Culture and Exhibition	Living convenience	Office support	Social activities	recess	χ²(p)
		55(1000)	9(164)	8(45)	12218)	10(182)	16291)	
-	Neighborhood	8(145)	2250)	1(125)	2250)	2250)	1(125)	
Bank Transaction Location Select	Near the workplace	45(818)	7(156)	7(156)	8(178)	8(178)	15(333)	χ^{2} = 9.222 p=
	Stand out when moving	236)	0(0)	(0)	2(00)	(0)	0(0)	0.324
	man	26(473)	2(7.7)	6231)	7(269)	6(231)	5(192)	$\chi^{2}=$
Gender	Woman	29(527)	7(241)	2(9)	5(172)	4(138)	11(379)	7.620 p= 0.107
	20's	5(91)	0(0)	1200)	1(20)	2(40)	1200)	2
Age group	30s	20364)	7(351)	2100)	3(150)	3(150)	5(250)	χ^{2} = 15.990
	40s	22(410)	2(91)	2(91)	5(227)	5(227)	8264)	p= 0.192
	Over 50	8(145)	0(0)	3(375)	3(375)	0(0)	2250)	0.192
Job	self-	8(145)	0(0)	2250)	1(125)	3(375)	2250)	$\chi^2 =$

employment						
Public servant, employee, service job	30545)	5(167)	620)	4(133)	5(167)	10(333)
Profession	16(291)	4250)	(00)	7(438)	1(63)	4250)
Full-time housewife, others	1(18)	Q(X)	Q(X)	0(0)	1(1000)	(0)

Table 4. Bank office complex facility space utilization - commercial area

Frequency (rete)

DIVISION		all	Culture and Exhibition	Living convenience	Office support	Social activities	recess	χ²(p)
		88(1000)	19216)	5(57)	16(182)	14(159)	34(386)	
5 1	Neighborhood	43(489)	8(186)	2(47)	6(40)	6(40)	21(488)	
Bank Transaction Location	Near the workplace	38(432)	821.1)	3(79)	9(237)	(158)	12316)	χ ²⁼ 7.100 p=
Select	Stand out when moving	7(80)	3(29)	(0)	1(143)	2286)	1(143)	0.526
	man	29(310)	9310)	4(138)	4(138)	5(172)	7(241)	$\chi^{2}=$ 9.655
Gender	Woman	5(670)	10(169)	1(17)	12(213)	9(153)	27(458)	9.033 p= 0.047*
	20's	19216)	5(263)	1(53)	421.1)	5(263)	4(21.1)	χ ² = 12.493 p= 0.407
A go group	30s	34386)	72216)	1(29)	9265)	3(88)	14(412)	
Age group	40s	21(239)	5(238)	1(48)	1(48)	5(238)	9(29)	
	Over 50	14(159)	5(238)	2(143)	2(143)	1(7.1)	7(500)	
	self- employment	9102)	3(33)	1(11.1)	2(222)	3333)	(00)	
Job	Public servant, employee, service job	25(284)	7280)	(0)	6240)	3(120)	9360)	χ ² = 12.328 p=
	Profession	26295)	5(192)	2(7.7)	3(115)	5(192)	11(423)	0.420
	Full-time housewife, others	28(31.8)	4(143)	2(71)	5(179)	3(107)	14500)	

The subjects of the questionnaire are residents of Seoul, Gyeonggi-do, and Incheon-city who view financial services. 225 copies were collected, and a total of 200 copies were analyzed and utilized to organize the population composition and sample survey. Regarding the demand for the use of complex facility spaces in bank offices, the residential area was the highest at 42.1%, followed by cultural and exhibition spaces, social activity-related spaces, convenience spaces, and office support spaces. Rest space was 29.1% and cultural

and exhibition space was 16.4%, and the order of survey subjects was the same as that of residential areas, and the same results were obtained for commercial areas.

5. Conclusion

Today's financial environment has faced a new paradigm due to the change in consumer financial transactions, but the reality is that bank offices are not effectively utilized due to a uniform space composition in the role of space. This study examines the changes in the financial environment, examines consumers' perception and improvement of the use of bank offices by region based on the current situation of bank offices, and recreates the functional role of the space to connect consumers and the new financial environment. The significance of this paper is to create a bank that plays a regional role. In the current era, financial networks are freed, and consumers' financial consumption patterns are appearing in various ways. In the banking business, the customer base remains inefficient due to changes in the consumer financial environment. In line with the new financial paradigm, changes in banking operations and business methods are changing into a space that meets consumer needs and local content in addition to financial services. The environmental changes of banking locations are changing in various ways, such as complex financial stores, convergence smart branches, moving business areas, shop-in-shops, culture banks, and regional business locations. In the future, the bank office should be transformed into a cultural, exhibition space, and convenience facility space related to social activities. I want to be grafted into the business. In accordance with the changes in the consumer financial environment, bank offices should be used as spaces suitable for the characteristics of consumers in each region, and a plan for improvement of bank offices should be reflected not only in the environmental and physical aspects, but also by reflecting the characteristics of the region as a regional-centered space. In addition, the bank office needs a space for convenience facilities where consumers' lives and work are shared.

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