A Study on the Co-Creation of Value in Service Ecosystem: An appraisal of the platform of My Health Bank of National Health Insurance

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Objective: Taiwan Government's organizations have endeavored to promote the applications of big data and open data. The "My Health Bank" is one of the measures promoted by the National Health Administration, Ministry of Health and Welfare. This study proposes the perspective of the "value co-creation" with the attempt to extend the concept of service ecosystem and apply it on the platform of My Health Bank to examine whether people (patients, families, and caregivers) can promote their health literacy? *Method:* This cross-sectional study, with people that have registered at "My Health Bank" as subjects. Complying with the inclusion criteria, 401 questionnaires were delivered, with 391 valid ones, excluding those incompletely and inaccurately filled. *Result:* That the affecting factors of the co-creation of values: age, education level, annual income, and platform operation show to be significant ($p < 0.05$); and gender, occupation, and resource exchange do not reach the significant level ($p > 0.1$). *Conclusion*: We found My Health Bank changed the inertia of "value creation" in the traditional medical value, it allows the traditional medical and healthcare industry to expose to the impacts of the mega trend of the internet, the transformation of the platform in a necessary trend.

Keywords: Value Co-Creation; National Health Insurance; My Health Bank; Service Ecosystem

1. Introduction

In recent years, Taiwan Government's organizations have endeavored to promote the applications of big data and open data. The "My Health Bank" is one of the measures promoted by the National Health Insurance Administration, Ministry of Health and Welfare. The basic idea of My Health Bank is to return the health information of people to the people. It allows them to grasp their health conditions, complying with the global trend of healthcare. It also gives opportunities to interested parties in medical health services to establish new medical policies and innovative models so that value can be exchanged continuously, and the service system can be developed sustainably. The National Health Insurance Administration intends to provide references to people systematically with the huge data accumulated in the "National Health Insurance Data Bank" to establish a common healthcare knowledge platform for the medical service providers and patients so doctors and patients can refer to it during medical consultation. It will avoid unnecessary check-up, repeat prescriptions, and interaction, allowing doctors to understand the patients' medical history in the shortest possible

time. Likewise, it will promote interactions between doctors and patients and reduce repeated prescriptions, resulting in the upgrading of medical service quality. Moreover, people can also grasp their own medical records and situations of medical services [1,2].

From the perspective of service-oriented logic, the National Health Insurance Administration, medical service providers, and people can be regarded as actors for value co-creation [3,4], i.e., the roles of resource integrators. Providing the system platform of My Health Bank (abbreviated as the platform in the following), the National Health Insurance Administration can be regarded as the value advocate. The service ecosystem recalls the social context emphasized in the service-oriented logic (such as the importance of the system on value co-creation [5], with accentuated emphasis on institutions) – the domain of sharing or "the rules of the games" [6]. In the exchange of value co-creation and service, it plays an important role [7]. Moreover, in the ecosystem, there must be services, tools, and skills to allow members evolve and reap benefits together on the platform to derive effective development and avoid shrinkage and disappearance. In the complicated network platform environment at present, after Vargo and Lusch [8] proposed the concept, it will become the major roles for the study of the value co-creation. It will form a trend not only in academia but in different sectors, inviting studies and discussions [4,9,10,11].

The study of value co-creation has been applied widely on the context of general industries [12,13]. However, from the perspectives of platform, related literature is flimsy and inadequate. How to manage the relationship of diverse interested parties to allow each of them maintain relations of independent interested party to contribute to the collective co-creation of values [14,15,16,17]? Therefore, this essay attempts to find out whether the platform can be operated effectively or not from the perspective of the value co-creation in the service ecosystem? Can value co-creation be derived on the platform? Regarding the academic contributions of this research, it is possible to propose a theoretical framework with the study of value co-creation in the service ecosystem. Moreover, it can enrich the service ecosystem and provide the literature of original studies regarding Taiwan's My Health Bank platform. As to its contribution in practices, the results of this research can provide the value advocate – the government references in policy making and promotion of the My Health Bank platform with more macroscopic considerations. It intends to offer contributions to the service ecosystem and the practice of value co-creation.

2. Literature

2.1. My Health Bank platform of National Health Insurance

To reduce inequality between the medical service providers and patients in the aspect of medical information and allow people achieve personal health management substantially, the National Health Insurance Administration began to promote the "My Health Bank" system platform with the concept of electronic medicine through message transmission via the network in September 2014. It made medical information more transparent and convenient to people. Starting from July 2016, the platform was fully upgraded to version 2.0 to promote the service efficacy. The contents of the upgraded version includes: visual representation of data, provision of disease management service (such as the integration of checkup data, provision of liver cancer prediction, evaluation of end stage kidney disease, and the application of health data) to provide more health education guides, promote people's health knowledge, and promote the accessibility and availability of the platform to upgrade the convenient functions of usage) [18]. By the end of 2018, in Taiwan, there were 1.03 million people

registered on this platform [19]. The basic idea of this platform is to connect, interact, and exchange. In other words, it matches the needs of dual parties and multi-parties to achieve the "interaction" and "exchange" resources mechanism and domain. It can either be an actual platform or a virtual one [20,21,22,23].

The platform's nature is to connect the needs of interested parties. Through interaction, each other's needs and inlaid resources are connected to integrate new resources for solving the common problems [24]. Interacting on the platform, it allows interested parties to conduct resource interaction and integration [20,22]. Regarding the traditional "platform", it was the issue of "interface" that helped developed individual values. The design of the interface facilitated the accumulation of individual values. However, the management of co-creating "platform" is a mechanism that promotes interaction and assists interested parties, resources, and experiences interact. The conducts and actions that contribute to the solution of systematic problems facilitate the creation of multiply effects of individual values with interactive management [24,25].

2.2. Service ecosystem

In recent years, with the rise of the concept of service ecosystem, the subject of the studies of value advocate shifted from the narrow scope of active relationships of both parties (consumers and producers) to all the interested parties, i.e., all actors related to the system [26]. The service ecosystem is an extension of service-oriented logic. In the milieu of multiple network platforms, it has become the major objective of the studies of the value co-creation. After Vargo and Lusch's proposal of this concept, scholars begin to conduct studies in related theories [12,13].

Founded on the service system, the service ecosystem emphasizes the feature concept of self-sufficiency and self-accommodation [5]. With the concept of service ecosystem, it highlights the fact that in the parties of economic exchange (such as individual customers, family, and enterprise) are service providers and receivers at the same time, without any absolute producer and consumer. The consumers in the past are now a nodal point in the service ecosystem. The creation of values is constituted in the interactions between actor-to-actor [29].

Value suggests establishing connections among service systems. When a certain service system generates services with its own resources, and suggests value propositions, other service systems will recognize and accept the value propositions because of the needs of the resources. They will then connect with the service system that suggests the value proposition. With service exchange, service systems can obtain resources of other service systems to augments their own conditions through exchange [30]. Likewise, each service system will become a service provider and receiver at the same time. A service system can survive with resources from other service systems. Such interdependent relations promote exchange of services and integration of resources. Meanwhile, the exchange among service systems depends on the voluntary mutual beneficial relations [31].

From the viewpoint of service ecosystem, Akaka and others examine international marketing from four perspectives: service exchange, resource integration, value co-creation, and situational value. They emphasize simple and micro-view action and interaction embedded in a more complicated micro-view and mid-view system and structural level. When making interactive interfaces to drive a multi-level system, including macro-view, mid-view, and micro-view resource integration and service exchange, in a dynamic and complicated environment, it influences value co-creation through multi-level interaction and system [32]. Akaka and Vargo [33] emphasize repeated that as the dynamic operative resources of a service ecology, skills can promote interactions to achieve

value co-creation in a multiple-level (micro-view, mid-view, and macro-view) manner in a service ecosystem. It inspires them to study the relations of mutual influence regarding the practice of skill, system, and interaction. They regard use value and situational value as service experience and propose the service conditions constituted by the three levels of service contact, service domain, and service ecosystem. From the service contact between an enterprise and customers, a dual way interaction, they expand the scope to the consideration of the service scenarios in the social environment [34]. In other words, the major purpose of conducting activities of resource sharing by actors in a service ecosystem is "optimization." It implies the enhancement of adaptability when facing external environmental change of a service ecosystem to promote its survival rate [30, 31].

2.3. Value co-creation

In the past few decades, the roles played by consumers in the business environment have changed, shifting gradually from passive users of products and services. Many new business models emerged, such as the "platform revolution," "sharing economy," and more. They challenge the traditional management logic and strategic thinking. The traditional theories of competitive advantages, such as linear industry supply chain, vertical integration, and internal core capabilities of enterprises are replaced by supply ecosystem, vertical separation and horizontal integration, externalization of competitive advantages, and other practices gradually [35]. Simply speaking, the boundary of enterprise is becoming more and more vague to adapt to all sorts of innovations in cross-organizational management models. Gulati, Puranam & Tushman [36] called it as meta-organization, emphasizing that an organization is no longer bound by authoritarian relationship. Instead, they pursue after a common goal with an almost equal relationship.

The value co-creation involves mass collaboration of important interested parties. The efforts and actions contributed by an individual interested party show to have a highly interdependent relationship. The studies of the value co-creation is widely applied in common business contexts [12, 13]. However, departing from the perspective of platform, the literature is flimsy and inadequate. How to manage the relationship of diverse interested parties to allow each of the independent interested party to contribute to the collective efforts in the co-creation of values? [14,15,17,21]

2.4. Service ecosystem and co-creation of values

The management of the traditional "platform" is the issue of "interface" management. They collaborate to develop individual values and design interfaces to facilitate the aggregation of individual values. However, the management of a co-created "platform" is a management mechanism that promotes interaction. Assisting the problem interaction, resource interaction, and experience interaction of individual interested parties, it is a means and action that help solve systematic problems with interactions. In other words, interactive management facilitates individual values to create multiply benefits. Since 2014, the National Health Insurance Administration has endeavored in opened health data for effective use of third parties. Why has My Health Bank not been widely accepted and used by people? It is worthy of further studies.

The perspective of service ecosystem recalls the importance of social context (such as system) to the value co-creation emphasized in service-oriented logic [5]. In the discipline of medical healthcare studies, it has drawn much attention and discussed in recent years [4, 37-41]. From the discussion above, it is known that the National Health Insurance Administration, which provides the system platform of My Health Bank, should be regarded as the value advocate. How can we motivate actors to have more incentives to help develop the platform to enhance its operation efficacy? It is the concept

of ecosystem. Regarding the core theory of the ecosystem, how to construct an operative platform and derive value co-creation? It has its importance and meanings, worthy of further studies. The studies of the value co-creation have been applied in the context [12,13] of general industries widely. However, departing from the perspective of platform, the literature is flimsy and inadequate. How to manage the relationship of diverse interested parties to allow each of the independent interested party to contribute to the collective efforts in the co-creation of values? [14-17] Therefore, this study proposes the perspective of the "value co-creation" with the attempt to extend the concept of service ecosystem and apply it on the platform of My Health Bank to examine whether people (patients, families, and caregivers) can promote their health literacy from the medical healthcare providers? From the operation of the platform, resource exchange and integration, and co-operation with doctors, can it co-create the medical effects of medical treatment? With this important issue, perhaps, we can patch up the insufficiency of the literature regarding the study and analysis of the service-oriented logic and value strategy theory.

3. Methods

3.1. Design, sample and setting

This study employs cross-sectional research as method, with people that have registered at "My Health Bank" as subjects. The testing samples are approved by the Institutional Review Board (IRB; 1061107). With interviewees' assistance and the hospital's consent, patients from the outpatient department are selected. Before sending out the questionnaires, testees were asked if they had registered at "My Health Bank" to confirm if they were the subjects of this project. The questionnaires were filled out anonymously. Complying with the inclusion criteria, 401 questionnaires were delivered, with 391 valid ones, excluding those incompletely and inaccurately filled. Regarding the representative of the samples, reference is made with the Sample Size Calculator of Dillman (2000). The registration of My Health Bank is regarded as the population. Calculated with 95% of the estimated 1.03 million as the confidence level, the minimum sample size is 384. The number of our sample was 391; thus, our sample size was appropriate.

In addition to the supposition of this research, in the past studies of the platform pointed out that it is related to gender, age, marital status, profession, education, monthly income, and occupation [43-44]. Therefore, the variables above are regarded as controllable variables. The first part of the structure questionnaire includes basic personal attributes: age, marital status, monthly income, education, commercial insurance conditions, occupation, and others. In the second part, it includes the operation of the My Health Bank platform, resource exchange and integration, and medical and the investigation of the satisfaction of the doctor-patient value co-creation. There are 26 questions, using Likert's 5 points scale (1 implies highly dissatisfied and 5 implies highly satisfied). The higher the scores, the higher the self-conscious satisfaction. If contrary, the scores will be lower.

3.2. Statistical analysis

The research data were filed and analyzed with the software package SPSS for Windows 18.0. The significant level is 0.05. First, this research used descriptive statistics, with reference to the frequency and percentage of the variable attribute to verify the gender difference (Regarding Chi-square test, to avoid the over-small number samples in the cell that affected the applicability of Chi-square test, the analysis of data category was conducted item by item. If the expected cell frequency in the analysis of variables was less than 5, more careful Fischer's exact test was used in the testing).

In addition, regression analysis was used to analyze the co-relation of the operation of My Health Bank platform, resource exchange and integration, value co-creation, and other variables were used. It was estimated that "regression coefficient" helped understand the correlations among each variable and test their significance.

4. Results

4.1. Sample Characteristics

There were 391 valid samples in this study. The background data is that 60.3% of them are female and 87%≦54 years old. 54% of the testees are single. The annual income of 40.4% of them is between NTD30,000 and 49,999. In the aspect of education level, more than 60% of them are university graduate or above. 58.8% of the testees purchase commercial insurance in addition to the National Health Insurance. As to occupations, most of them are others (20.2%), private organizations (19.4), and service industry (19.2). Analyzing the data with Chi-square test, the results are as follow: Age($p<0.001$), Marital status($p<0.001$), Annual income($p<0.001$), Educational level($p<0.05$), Occupation($p<0.001$), Business life insurance ($p=0.132$), and no significant difference ($p > 0.05$) (see Table 1).

Table 1. Descriptive statistics of personal characteristics (N=391)

Variable	Female	%	Male	%	All	%	χ^2	p
Age (years)							23.758(2)	.001
≦54	221	56.5	119	30.4	340	87.0		
55~64	11	2.8	29	7.4	40	10.2		
≧65	4	1.0	7	1.8	11	2.8		
Marital status							11.920(1)	.001
Single	144	36.8	67	17.1	211	54.0		
Married	92	23.5	88	22.5	180	46.0		
Annual income (NTD)							18.307(3)	.001
No income	35	9.0	13	3.3	48	12.3		
≦ 29,999	82	21.0	49	12.5	131	33.5		
30,000~49,999	100	25.6	58	14.8	158	40.4		
≧ 50,000	19	4.9	35	9.0	54	13.8		
Educational level							9.493(4)	.050
Junior high school	11	2.8	9	2.3	20	5.1		
Senior high school	18	4.6	24	6.1	42	10.7		
Junior college	38	9.7	29	7.4	67	17.1		
University	145	37.1	74	18.9	219	56.0		
Graduate School	24	6.1	19	4.9	43	11.0		

Business life insurance							1.497(1)	.132
Yes	133	34.0	97	24.8	230	58.8		
No	103	26.3	58	14.8	161	41.2		
Occupation							21.381(5)	.001
Medical industry	48	12.3	15	3.8	63	16.1		
Private organizations	32	8.2	44	11.3	76	19.4		
Military and public servants	21	5.4	16	4.1	37	9.5		
Financial industry	33	8.4	28	7.2	61	15.6		
Service industry	47	12.0	28	7.2	75	19.2		
Others	55	14.1	24	6.1	79	20.2		

4.2. Analysis of reliability and validity

This study uses the perspective of service ecosystem proposed by Akaka et al., (2013) as research framework, the study involved two steps. The first, sought to establish content validity of the newly derived instrument. The pilot study involved the drafting of preliminary items, expert validity and reliability analysis. Regarding the research questionnaire, it is made with reference to related literature and specialists opinions. Content testing was conducted with the help of 5 medicine specialists and medical management scholars. Testing on the importance of content progression, appropriateness, and clarity was conducted. Questions scored less than 4 points were eliminated with reference to specialist validity testing. After the revision, there are 12 questions on the operation of My Health Bank platform, 6 questions of resource exchange and integration, and 8 questions on doctor-patient value co-creation. After that, 30 subjects that complied with the research criteria were chosen. Pretest was taken in accordance with the questionnaire's contents and verbal representation. Regarding the reliability, the Cronbach's α value of internal consistency was .93. Formal testing was conducted, with the Cronbach's α value of internal consistency of .91. Therefore, there is certain validity in the variables and construct measurement. The Cronbach's α value on the empirical data of platform operation is 0.942. The Cronbach's α value of resource exchange was 0.968. The Cronbach's α value of value co-creation was 0.988. The Cronbach's α value of reliability was 0.947. Therefore, the empirical data of this research possess certain degree of reliability.

The internal consistency of the measurement model was assessed by computing composite reliability, and average variance extracted (AVE) indicated the percentage of variance of the dimension explained by an individual item. Composite reliability and AVE values of >0.6 and >0.5 respectively and the factor loadings of all the items that reached statistically significant levels indicate sufficient internal consistency and convergent validity of the measurement model. The factor loadings of all the items reached statistically significant levels ($p < .01$). AVE values of all dimensions were higher than 0.60. This indicated that the variable possessed sufficient internal consistency and convergent validity (see Table 2).

Table 2. Validity and average variable extracted

Construct	Mean	Standard deviation	Cronbach's α	Complex validity	Average variable

					extracted
Platform operation	3.412	.818	.942	0.923	0.802
Resource exchange and integration	3.109	.962	.968	0.800	0.960
Values co-creation	3.572	1.029	.988	0.967	0.785

4.3. Regression analysis of co-creation of value

This study further analyzes the influence of platform operation and resource exchange on the value co-creation. Analyzing the control variable and independent variable, the problem of co-linearity may appear. This study has already tested the related variables with variance inflation faction (VIF value <10) and condition index (CI value<10) to avoid the problem of collinearity. The results of the regression difference test of the value co-creation is that the F statistic is 30.197($p < 0.001$). From Table 3, the regression model indicates that the affecting factors of the value co-creation: age, education level, monthly income, and platform operation show to be significant ($p < 0.05$); and gender, occupation, and resource exchange do not reach the significant level ($p > 0.1$).

Table 3. Multiple regression estimates for Values co-creation.

Variable	**Values co-creation**		
	Beta	**t**	***p***
Gender (RG: Females)			
Males	.026	.718	.473
Age (RG: ≦54)			
55-64	-.070	-1.630	.104
≧65	-.110	-.308	.002
Marital status (RG: Single)	-.014	-.347	.728
Educational level (RG: Junior college)			
Junior high school	.018	.456	.649
Senior high school	.039	.958	.339
University	-.137	-2.800	.005
Graduate School	-.160	-3.536	.001
Annual income (RG: NTD 30,000~49,999)			
No income	-..014	-.293	.770
≦NTD 29,999	.072	1.687	.092
≧NTD 50,000	-.014	-.293	.010
Occupation (RG: Others)			

Medical industry	.041	.833	.405
Private organizations	-.062	-1.302	.829
Military and public servants	.011	.216	.194
Financial industry	.033	.670	.504
Service industry	.012	.241	.810
Business life insurance (RG: No)	.048	1.135	.257
Independent variable			
Platform operation	.660	13.007	.001
Resource exchange and integration	-.052	.278	.278
R^2		.622	
Adj. R^2		.602	
F values		30.197	
P values		<.001	

Note: *** p < 0.01, ** p < 0.05, * p < 0.1.

5. Discussion

This research intends to find out the impact of the operation of My Health Bank platform and resource exchange and integration on the value co-creation. The situation of the study is the people registered for the using of "My Health Bank" in Taiwan. The values of platform ecosystem change in accordance with the development of the medical industry. It correlates and develops with the functions of platform ecosystem and medical values. Therefore, the indispensable driving force of the value co-creation is the enhancement of platform operation and resource exchange and integration. The difference and correlation of the findings will be discussed as follow.

The study discovered that in the aspect of age, at the age of ≧60 Years, it shows to have negative correlation and significant difference than ≦5 Years. The result is similar to the study of Gallagher [45] and NHIB [46]. The result indicates that age is an important factor exerting influence on the use of website platform. Young people are more interested in using it, with preference on particular platforms. According to the statistics of National Health Administration, from September 2014 to mid-August 2017, My Health Bank is downloaded and used by young and mid-aged people at the age of 30 and 50. Taiwan is becoming an aging society, with more and more emphasis on the quality of medical healthcare. Generally, society does not have crisis conscious towards the issue of an aging society. Around the world, the technology and skills are advancing and innovating. How to construct a set of My Health Bank that suits users of all ages so that more senior citizens are willing to participate and cooperate with the healthcare team to facilitate the operation of the platform?

In addition, in the aspect of education level – University, Graduate School and Junior College, this study shows to have negative correlation and significant difference. Regarding annual income, ≧

NTD50,000 shows to have negative correlation more than NTD30,000~49,999. As to the occupation, there is no significant difference. It shows to be contrary to the findings of Gallagher [45]. The research results indicate that gender, income, and education level show to have low impacts on the using of website platform by individuals. However, it is similar to the findings of the investigation of Zheng [47]. In Zheng's investigation, in the aspect of education level, the non-web use rate decreases as the education level increase. About 95% of uneducated and 70% of elementary school graduates have never used the internet. Regarding occupation, almost all students, soldiers, police, civil servants, financial and insurance personnel use the internet. The higher the monthly income, the lower non-website use rate. Moreover, the design of the platform requires the understanding of the conducts of health promotion and necessary pursuit of medical and healthcare knowledge [48]. The research of Stevens and others [49] suggest that in the design of healthcare platform websites, it requires theoretical references and considerations of users' experience of everyday life. Otherwise, it will make users feel lose and renders the platform vague.

Moreover, this study discovered that there is positive correlation regarding the impact of the platform operation on value co-creation. In the health ecosystem, patients can use it to obtain knowledge about their diseases and motivate them to participate in healthcare actively [4]. This study believes that if people can use the information provided by "My Health Bank" properly, it helps them to grasp their own health and medical conditions immediately. The information can be taken as references when seeking medical treatment, avoiding unnecessary check-up, repeated prescriptions, and interactions. Promoting the doctor-patients' value co-creation, the operation of the platform allows doctor-patients to co-evolve on and benefited from the platform. The results comply with the study of Vargo & Lusch [4,9,10,11].

This study discovered that in the aspect of the impact of resource exchange and integration on the value co-creation, it does not reach the significant level. It is different from the findings of Akaka and others [32] in their study of international marketing. Perhaps, it is because of the operation of the platform model of My Health Bank, it has not been integrated with resources from various sources to develop a platform with the model of resource exchange and integration. In addition, the National Health Insurance Administration of Taiwan still do not have any more positive management mechanism of the platform use. Therefore, it decreases the actors' motivation of interaction and the issues of integrating each other together.

6. Conclusion

In the past few years, the concept of platform and the innovation of its application emerged rapidly, like bamboo shoot after rain. The management of the co-creation of "platform" is the mechanism that promotes interaction. It helps the problem interaction, resource interaction, and experience interaction among interested parties. It is the measure and action that solve systematic problem from interaction. It is an interactive management that helps individual value to create multiple benefits.

My Health Bank changed the inertia of "value creation" in the traditional medical value. It allows the traditional medical and healthcare industry to expose to the impacts of the mega trend of the internet. The transformation of the platform in a necessary trend. The National Health Insurance Administration returns people's health information to the people, allowing them to get hold of their own health conditions. It complies with the trends of health passport. It also provides a new model

that provides different medical policies to participants of medical services and doctors, allowing values to be exchange continuously and service system develop sustainably. Therefore, this study suggests the National Health Insurance Administration to consider the aspect of resource exchange when promoting My Health Bank, adopting a more effective model in the interaction and integration.

This study regards platform operation and resource exchange as a perspective of the value co-creation. It can patch up the gap in the literature of service ecosystem and the original studies of the value co-creation. Substantially put, this study proposed a more complete testing method and important research findings. Likewise, this research has contributed to the literature of service ecosystem and the value co-creation and made further studies with a more complete theoretical approach.

7.Limitations

This study endeavors to be exhaustive in the collection and analysis of data. However, there are still limitations, such as the operative variable "resource exchange and integration" proposed in this study. Although the contents are valid, they may change with the shift in time and the shift in the system and code. In later studies, they should be handled properly. In the future, the studies concerning the co-creation of value may consult the findings of this research as foundations to propose corresponding theoretical framework. In addition, the variables that are not verified (such as gender and occupation) should be processed with site interview, secondary resource search, and other quantitative studies. Finally, the subjects of this study are people; therefore, it is suggested that other interested parties may be regarded as subjects for investigation and analysis in future studies.

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Appendix A. Questionnaires

Questionnaires of Platform operation and Resource exchange and integration (18 questions)
1.My health bank platform login and operation method
2.My health bank Platform Provides Query Methods
3.My health bank platform provides relevant information such as inspection (check) results
4.My health bank Platform Provides Your Own Health Information
5.My health bank Platform Increases Your Health Intelligence
6.Health education guide added to My health bank platform
7.My health bank platform adds data visualization
8.The information provided by the My health bank platform can be applied to your own health management

9.My health bank Platform Provides Information About Your Medical Records
10.My health bank Platform Revised to Increase Health Information Sources
11.My health bank platform is vividly designed
12. Equipment required for my health bank platform (such as card reader, etc.)
13.I will continue to be concerned about the disease management services provided by the My health bank
14.I will continue to care about outpatient and inpatient medical information provided by the My health bank
15.I will continue to be concerned about the results of the inspection (check) provided by the My health bank
16.I will continue to be concerned about the disease screening information provided by the My health bank
17.I will continue to be concerned about the medicine information provided by the My health bank
18.I will continue to pay attention to the basic health information area provided by the My health bank
Questionnaires of Values co-creation (8 questions)
1.Medical information provided by the My health bank to reduce repeated medication use
2.Medical information provided by the My health bank reduces the chance of medication errors
3.Medical information provided by the My health bank, explaining the time for the doctor
4.Medical information provided by My health banks, for improving medical quality
5.Medical information provided by the My health bank, for the results of disease treatment
6.Medical information provided by the My health bank
7.Medical information provided by My health banks for understanding medical issues
8.Medical information provided by My health banks for overall medical care results

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