ENHANCEMENT MODEL FOR HOSPITAL QUALITY SERVICE WITH CONSIDERATION OF INTEGRATING PATIENTS HEALTH INSURANCE TO UTILIZE FINTECH

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ABSTRACT
Enhanced the service model is one solution in the quality of service, especially in hospitals. One form of service that is proposed in this case is by utilizing financial technology to answer these solutions. Medical records can be measured and recorded properly by integrating data in metrics. The needs of patients using Health Insurance are easier to handle patients. The model that we apply uses a logistic regression model approach to handling patients using Fintech data Metrics. BPI and general insurance patient data ranges from the last 3 years and have medical records that often use insurance 85% to 98%. Integration for patients and data integration obstacles so far can be answered. Development of quality integration management through a cross-service platform approach to obtain data, of course, will involve various regulators and stakeholders.

INTRODUCTION
To improve service quality and attractiveness to stakeholders along with patient involvement and consumer loyalty while lowering health care costs, the company aims to define consumers who have health insurance from both the government and the private sector, here we offer and develop a mobile platform-based application program interface, and by answering the needs of the hospital as a solution. The Payment Digital Technology has become a significant for huge data information examination, past its conventional use in infection therapy [1]. For instance, it tends to be utilized to drive dynamic in general wellbeing programs [2], distinguish hazard factors for irresistible infections [3], empower progression of care between clinical foundations [4], improve medical services quality, encourage clinical examination [5], upgrade epidemiological observation and revealing, uphold clinical choices [6], etc. This features the developing acknowledgment of the gigantic estimation information and the expanding desires for its utilization. Tolerant clinical records are grouped in a solitary Provider association or wellbeing framework, with the unpredictability of guaranteeing Health protection against access conventions making it hard for patients and families to get and move records over various Providers. Likewise, each electronic wellbeing record framework stores information in an unexpected way, so it isn't clear who is recording what, where, and when. This results in data collected from participants in care settings including not only patients for whom data is available, but also caregivers, pharmacists, nurses, nursing homes, rehabilitation facilities, and social networks dedicated to their care. Old software systems with in-house interoperability confidential data were limited to different clinical, research, managerial, and budgetary frameworks. Clinical and social information coming about because of home and work environments are missing, and significant wellbeing patterns that patients seldom take.

METHODOLOGY
In this study, information sharing and transparency give significant outcomes to persistent patient consideration and driving development out in the open and private wellbeing establishments. Although stakeholders realizing the potential benefits of Fintech data integration developing slowly. Absence of advancement perplexes a lot and our exploration plans to clarify issue. Through meetings, we discover the stream Situation of information division in the nature of administration to protection clients.

2.1 Quality of Service Key stakeholders include:
- Patients get medical care given by Fintech specialist organizations. They pay protection charges, co-installments, and deductibles, just as through and through costs for wellbeing administrations. Alongside the Provider, patients contribute information to electronic wellbeing records, albeit quiet information and conduct data about clinical record signs, essentialness, diet, physical action, and cigarette utilize and more can be introduced on the portable application stage.
- DPJP (Provider doctors, nurses, and clinic staff) They document money related cases with Payers, getting repaid charges for billable administrations performed. This is known as the charge model for administrations. Suppliers are major clinical patrons and clients of electronic clinical records. Private professionals work for themselves or as a feature of a gathering of Providers. These Provider Groups are frequently rather
than emergency clinics, medical services frameworks, and merchants to offer particular types of assistance (clinical imaging, careful focuses, exceptional consideration).

c) A payer is an insurance entity that replaces the Provider for covered health services. In Indonesia, around 77% of payers are privately owned businesses, including business insurance agencies and self-guaranteed organizations, while around 23% are government establishments and projects, such as BPJS / IKS. About 23% of health insurance funds flow from a company, and 77% from the Ministry of Health program of the Republic of Indonesia.

d) Private Insurers go to great lengths to keep the ratio of medical losses (the rupiah percentage of premiums paid by patients that Payers, thus, spend on medical services - the definition itself reveals to you something about Payers' mentality toward leaving behind charges rupiah for persistent consideration.) Low to build gainfulness, decrease expenses, and increment market intensity. The primary target of the administration is to give admittance to the consideration required for residents who might be impeded from a salary, age, or inability viewpoint while controlling expenses. The low clinical misfortune proportion is to a great extent because of a more advantageous patient populace and sufficient admittance to preventive consideration.

e) E-Metrics Health Record Medical System is a secure clinical data storage and pathway management / clinical flow system that combines health care information from emotionally supportive networks, for example, lab, radiology, clinical imaging and drug store, and supports electronic access and correspondence between Providers to encourage giving consideration. The MHRM (Metrics Health Record Medical) system also supports data used for direct clinical consideration use, for example, charging, quality administration, result announcing, asset arranging, and general wellbeing illness observation and detailing.

f) Drug and Biotechnology Companies create drugs, computerized items, and administrations that are utilized to see the improvement of patient history beginning from determination, fix, relief, treatment, and anticipation of ailment.

g) Pharmacy integration is responsible for the supply of drugs, and fulfillment of medicines and medication prescribed by digital service providers. This entity now also serves as a medical satellite clinic for further treatment needs. Fintech applications are also being carried out during the outpatient period in general.

IMPLEMENTATION MODEL
The goal of the Fintech-based Health insurance model is for data metrics that is universally accessed by patients, flows freely, and is safe, moving between Patients, Providers, and electronic health records. Under the model, the smart contract permits this data in the cloud and allows direct, encrypted patient access on behalf of the patient to anyone, anytime, anywhere whether in care settings such as the emergency room or at home. The unique global identifier will be permanently linked to the patient's standalone health record containing diagnosis, medication, laboratory data as well as critical patient-generated data on nutrition, exercise, vital signs and demographic information that will continue to evolve.

3.1. The Achieved Model
Models are typically fit by the greatest probability, utilizing the restrictive probability of G given X. Since P (G|X) totally indicates the restrictive dissemination, the multinomial dispersion is proper. The log-probability for N perceptions is:

$$\delta(\beta) = \sum_{i=1}^{n} \log P_{y_i}(x_i;\beta),$$

Where

$$P_{y_i}(x_i;\beta) = p_{y_i}(G = k | X = x_i;\beta)$$

We talk about in detail the second-class case, since the computations revamp altogether. It is profitable to code’s the second-class g through a 0/1 reaction y_i where y_i = 1 when g_i = 1, and y_i = 0 when g_i = 2. Let p_l(x; 0) = p(x; 0), also, p_2(x; 0) = 1 − p(x; 0). The log-probability can be composed.

$$\delta(\beta) = \sum_{i=1}^{n} \left( y_i \log p (x_i;\beta) ight) + (1 − y_i) \log (1 − p (x_i;\beta))$$

$$= \sum_{i=1}^{n} \left( \beta x_i y_i − \log (1 + e^{\beta x_i}) \right),$$

Here, \( \beta = \{\beta_{10}, \beta_{11}\} \), we expect that the vector of information sources \( x_i \) incorporates the steady term 1 to oblige the block.
To amplify the log-probability, we set its subordinates to zero. These scores conditions are:

$$\frac{\partial^2 \delta}{\partial \beta \partial \beta'} = \sum_{i=1}^{n} x_i \log p(x_i; \beta) (1 - p(x_i; \beta)),$$

It is advantageous to compose the score and Hessian in grid documentation. Let $y$ signifies the vector of $Y_i$ esteems, $X$ the $N \times (p + 1)$ grid of $x_i$ esteems, $p$ the vector of fitted probabilities with it component $p(x_i; \beta)$ and $W$ a $N \times N$ corner to corner framework of loads with it askew component $p(x_i; \beta)$old$((1 - p(x_i; \beta)$old$)).$

$$z = X^T X + W^{-1} (y - p).$$

It appears to be that $\beta = 0$ is a decent beginning an incentive for the iterative method, in spite of the fact that union is never ensured. Regularly the calculation does join, since the log-probability is curved, however, overshooting can happen. In the uncommon cases that the log-probability diminishes, step size dividing will ensure union.

RESULTS AND DISCUSSION

This Fintech application serves to increase patient awareness about primary health good and bad trends. Data transfer, managed by smart contracts and patient independent health records, allows physicians, clinical staff, family, friends, and caregivers to access patient information in a safe, controlled, and secure manner on an auditable basis, the patient informs the patient's overall health and builds a patient-centered community for ongoing support.

<table>
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<tr>
<th>REG</th>
<th>Patient Name</th>
<th>Identity</th>
<th>Type Payment</th>
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<th>Type Room</th>
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<td>Henny Syahrini, Dr. SpPD</td>
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</table>

Table 1. Distribution of Customer Health Insurance Customer Metrics Data

Table 1, We obtained data from the last 3 years, patient referral activities based on data from Health insurance users consisting of BPJS patients and general patients. We obtained this data to conduct trials in our application with the aim of facilitating an efficient service model to achieve quality management activities for waiters in hospitals. Not only that, medical records are also one of the considerations in making decisions by looking at patient history as shown in Figure 2 below:

Figure 2. Patient Metrics Behavior Medical Records

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Table 2. Integrating Patient Data Utilized FinTech Service

<table>
<thead>
<tr>
<th>Patient Data</th>
<th>Platform as A Service</th>
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<tbody>
<tr>
<td>Data Hosting</td>
<td>Blockchain Enable</td>
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<tr>
<td>InsuranceHealth</td>
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<td>Legacy recam medical</td>
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</tbody>
</table>

CONCLUSION
The research results have the value of service quality by utilizing financial technology and the trend of Star-up through the stages towards sharing data metrics and disclosure of facilities in the health care sector. In this study, based on the above discussion about segmentation, the process of Health Integration for patients and barriers to data integration so far can be answered, the development of quality integration management through a platform approach across various services to obtain data, this will certainly involve various regulators and stakeholders. Not only that, innovative institutional arrangements will be needed to improve the quality of services that need to be improved for the support of all parties as long as the service is excellent. As a problem-solving model in promoting insurance services.

REFERENCES


