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CASE STUDY: FRAUD & CLAIMS IN AUTO INSURANCE

A. Problem Statement

In Auto Insurance Claims, the normal assessment time ranges from 3 to 15 days with more than 90% of manual processes. The fraud & error chances are also high due to agent compromise or based on grey areas where claims assessment is done with gut-feeling without any learning from the past or without even having any insights. This causes 1 out of 10 frauds in India and loses about US \$6.25B each year. This is expected to increase due to increase as more Indians are buying new vehicles over period of time.

B. Solution

1. Artivatic has simplified entire policy approval as well as claims assessment process to increase customer trust as well as reducing the fraud, turn-around time with less errors.
2. KYC Digitization in real time with in-house built OCR Capabilities to simplify the KYC Verification & assessment.
3. Digilocker (IndiaStack) based verified KYC digitalization for real time KYC/RC/DL Assessment for providing /issuing policy
4. Technology enabled real time auto/vehicle claims assessment to identify parts, damage detection and intensity of the damage.
5. Classifying the damages for repair, replacement, painting with high, low and medium severity
6. Calculating the price based on vendor, location, state and damaged parts in real time to get assessment.
7. Fraud detection to prevent mis-use of images, make-n-model match & verification
8. Historical data-based pattern matching for fraud potential intelligence to reduce risk

9. Past decision assessment to verify the real time claims assessment to reduce fraud & errors
10. Self-training image annotation engine to train new vehicles, images, damages for improving accuracy & accurate claims assessment
11. Automated invoice reading and mapping with claims using OCR

C. **Technology Used**

1. **Scala** for backend processing i.e File upload, API calls with client.
2. C++, Java & ML for fraud, pattern identification & decision processing
3. Capsule Network/Yolo/other deep-learning models

D. **Results**

1. Digitization of documents helped further 40% in faster processing
2. 4X On-Boarding time reduced with digital process
3. Risk reduction for KYC & documents by 30%
4. Scaling process went higher by 65% (considering the time reduction and processing of policies with current need of resources and infrastructure)
5. Claims assessment of vehicles turn-around time reduced to 15 mins from 3-15 days with 80% accuracy [Further will be enhanced with more training & learning of data]
6. Fraud detection of images reduced by 40%
7. Pricing claims assessment risk reduced by 20%
8. Manual intervention reduced by 75% (It is still in evaluation cause of training process takes 1 quarter minimum to give more than 90% automated results)
9. Claims assessment process cost reduction went up to 40%
10. Development & infrastructure cost reduced by 85% for these implementation

Note: The above data is based on POC done with multiple clients.

E. **Time Duration**

1. POC Time = 4 weeks to 6 weeks
2. Implementation = 2 Week
3. Production Phase: 13 weeks to 16 weeks
4. Deployment: 48-64 Hrs