Early Warning Sign (SL and USL products) : achievement 🡪 ENPL from 3% in 2022 to less than 1% in 2023

Despite the implementation of fraud prevention that took place early in 2022, we are aware that a well-built system cannot be sustainable without improvement, particularly during this climate where fraudulent activities are rapidly changing over time. The purpose of creating an early warning system is to serve as part of the feedback-loop process to strengthen our core competency in preventing any suspicious application that comes right through the door. We use delinquency as a proxy of fraudulent behavior

The implementation of these new fraud prevention systems started towards the end of Year 2021 and has been on-going throughout Year 2022. The purpose (or motivation) of such new fraud prevention systems come from two types of fraud cases that quickly emerged in the past few years. First one is the income document fraud (for unsecured lending) mainly caused by the fact that our bank had penetrated more widely into the "small-pocket" customers markets in 2021; resulting in the large number of such income document fraud cases for unsecured lending where the number had increased by 10-fold (causing a credit loss in the magnitude of billions of BAHT in 2021.). Second one is credit/debit card transactional fraud which showed a 2-fold increase in mid-2021 and remained at high level throughout 2021. This increase had not only resulted in a credit loss; but also started to erode our customers' confidence and trust in our banking system. Note again that the new fraud prevention systems mentioned herein have been successfully implemented and launched successfully in 2022 with great success and real business impacts; whose impact has been measured as successful use cases for using big data analytics, ML, and AI to help transforming business and will be elaborated in the next questions.

How We Innovate Our Fraud Prevention System to Combat These Challenges:

Key enablers in our innovation lie in the full utilization of our "big data" both in terms of its variety (financial/non-financial/behavioral/alternative) as well as the level of granularity (aggregated/curated & transactional levels).

One other enabler is the transformation of our fraud prevention strategy whereby we put in place - for the first time - a "hybrid" approach. This allows human (namely, our audit teams) to understand and work in tandem with our AI-equipped system to detect fraud income documents in a very effective and efficient manner. This approach had increased our accuracy in capturing and preventing fraud in the loan approval process.

Key Results:

Our fraud prevention system reduces Fraud #1 (income document fraud) 4 times (cutting down the credit cost at KBank significantly in 2022 compared to 2021).

Our system then reduces number of Fraud #2 (credit & debit transactional fraud) cases 3 times and manages to keep the number at this low level through out 2022.

Competitor Benchmarking:

Innovation #1 (Fraud Prevention Systems): When comparing our fraud prevention data against the publicly available data, we are ranked as top leader in the Thai market. And, as far as we are aware of, none of the competitors in the Thai market have similar levels of fraud prevention's capabilities/performances as what we currently have. Key differentiation we think comes from the full utilization of our "big data" both in terms of its variety (financial/non-financial/behavioral/alternative) as well as the level of granularity (aggregated/curated & transactional levels). In addition, we have transformed our fraud prevention strategy by putting in place - for the first time - a "hybrid" approach; whereby human (i.e., audit teams) are now working together with our AI-equipped system to detect fraud income documents in a very effective and efficient manner.

Here is what we think we should be qualified:

1. TRANSFORMATION of our FRAUD Prevention System using Big Data Analytics, AI and ML with actually great results/benefits for business already realized in a very short time manner (note that these "results" are not just POCs; but they are real BAU results!).

2. "TEST & LEARN" Way-of-Work prompting us to put more focus on creating "proper" experiments, tracking results, and learning from them in a feedback-loop fashion. This lends itself to a more agile mindset and allows us to make continuous improvements on these projects we do.

3. Proper application of Machine-Learning/AI/Data Analytics technology TOGETHER with utilization of human workforce. We do understand that ML/AI technology has its limitations; and therefore we are very careful in applying such technology ONLY when we think it can do a good job. When its limit is reached; we make sure to still rely on human judgement/intervention to assure proper risk mitigation is still properly maintained.

4. BREADTH and DEPTH of Big Data we have used. We have a large team of data scientists developing/engineering new features as new data sources become available. Many of the features the team have engineered are quite revolutionary. For example, we are now able to use our data to identify whether or not people in the "network" closely connected to our customers are exhibiting low-risk or high-risk behavior. Such a "network" or "association" has showed to have a strong correlation with the credit behavior in certain segments of our customers (especially for small-pocket customers).