BOOSTING INNOVATION IN E-COMMERCE

PROFILE

Alibaba Group is a multinational technology company with businesses ranging from e-commerce and cloud computing to digital media and entertainment. As one of the biggest e-commerce platforms in China, its mission is to make it easy for companies to do business anywhere by transforming the way they market, sell, and operate.

CHALLENGES

Merchants tied down by limited resources and lack of know-how to improve business operations.

User market research is time-consuming and labour intensive for merchants to conduct on their own.

Manual processes hampers merchants' ability to provide timely customer service.

SOLUTIONS

Alibaba developed a data management platform to help merchants implement more targeted and effective marketing campaigns.

Data Management Platform

- Relies on the Business Improvement Exception to pull together and analyse consumer data in the form of anonymised tags or labels for the merchants' use.

- Allow merchants to use the data to identify groups of consumers for targeted marketing or promotional campaigns.

- Helps merchants to save on time and resources that can be placed into other operational aspects.

To help merchants reduce their customer service efforts and administrative costs, an AI chatbot was developed to respond automatically to customer queries using standard responses generated by the system.

The AI Chatbot

- Driven by semantic recognition/matching and algorithm training to provide quick and automatic responses to customer queries.

- Relies on the Business Improvement Exception to collect and make use of communication data from chat messages between merchants and their customers to train the algorithm and improve the chatbot's functionalities.

- All communication data are desensitised and anonymised before being processed for algorithm training and model optimisation to ensure the raw chat data is protected.

High volume of transactions on the platform increase potential issues with fraudulent registrations and transactions.

To counter potential risks of fraud, Alibaba deployed a centralised risk control tool that leveraged on Artificial Intelligence (AI) to detect fraudulent or abusive behaviour.
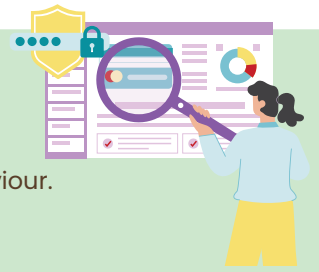
The Risk Control Tool

- Automatically collects user details such as IP addresses, user IDs, bank account details and historical transaction data and analyse them using an algorithm.

- Helps Alibaba generate an internal blacklist of fraudulent users or devices to strengthen data security.

- Users shown to be linked to any fraudulent or improper activity will be denied access to services on Alibaba's platforms.

- Users are provided channels to make counter statements in situations where they are adversely affected by the tool.

BENEFITS

Improved operational efficiency, **reduced costs** and **faster sales.**

Increase in positive feedback from customers.

Heightened traffic flow and revenue.

Stronger risk management with **strengthened data security.**

> The adoption of the PDPA exceptions has enabled us to empower businesses in the way they innovate, market their products and communicate with their customers. This has resulted in significant improvements in online sales and customer satisfaction.
>
> **Mr Royce Wee, Director, Head of Global Public Policy, Alibaba Group**

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Application of the PDPA's Exceptions to Consent has paved the way for Alibaba Group to develop technology solutions that help resource-strapped merchants in market research, customer service, and risk control.

Market research and customer service are two major challenges facing sellers in the e-commerce arena, especially those transacting on international platforms that provide goods and services for buyers around the world.

Many sellers also have to contend with the risks associated with doing business online.

As one of the biggest e-commerce platforms in China, the Alibaba Group wanted to find a way to address these challenges, in line with its mission to make it easy for companies to do business anywhere by transforming the way they market, sell and operate.

Challenges

Traditionally, market research and customer service have been handled manually, and the processes involved are time-consuming and labour intensive.

Merchants usually obtain general market insights by conducting their own buyer analysis or market research, or by purchasing them from market analysis vendors.

The former approach involves a lot of internal resources and long lead times, impacting the timeliness and effectiveness of the research.

The latter solution may not be effective if the research is not tailored to the specific business needs of the company, and commissioning customised market reports could be very costly, especially for SMEs.

As for customer service, operating on an international platform means that transactions can take place anytime and anywhere. Customer queries or requests can come in round the clock, from any part of the world.

Handling these manually, with limited access to information about the customer or the transaction, impacts the timeliness and hence the usefulness of the response.

The other ongoing challenge is risk management. Companies often find themselves having to deal with fraudulent registrations or transactions, for example, users signing up for multiple accounts on one device to misappropriate discount coupons.

The Solution

For Alibaba, the key to addressing these problems lay in adopting the new **Business Improvement Exception** and **Legitimate Interests Exception** under the updated Personal Data Protection Act (PDPA), which came into effect in February 2021.

The two sets of exceptions spell out circumstances under which organisations are allowed to collect and use personal data without having to go through the process of obtaining consent from individuals.

Helping SMEs with market research

Leveraging the opportunities presented by the Business Improvement Exception, Alibaba developed a Data Management Platform that presents buyers with a personalised display of goods and services in their in-app promotional notifications, tailored to their preferences.

The platform pulls together consumers' data and analyses it to generate anonymised tags or labels based on buyer characteristics such as their profile data, online

behaviour in terms of browsing, clicking and adding items to cart, as well as their purchasing activities and shipping address.

The anonymised tags describe consumer attributes such as their age range, country of residence, interests, and preferences (e.g. sports, beauty), consumption preferences (e.g. discount sensitivity), and membership or loyalty attributes (e.g. store/brand).

With these insights, businesses will be better able to identify groups of consumers that they

could approach for targeted marketing and promotional campaigns. The Data Management Platform is thus a boost for businesses on the Alibaba e-commerce platform, especially those with limited resources or experience in consumer analysis and running marketing or promotional campaigns.

Taking customer service up a notch

To address customer service challenges in the e-commerce world, Alibaba also relied on the Business Improvement Exception in developing an automated customer service tool for sellers – a chat bot powered by artificial intelligence (AI).

The AI model uses communication data from chat messages between sellers and buyers for semantics identification and algorithm training.

For example, questions and answers during customer service interactions between sellers and buyers are used to optimise the semantic recognition algorithm, which can be used to analyse and prepare standard responses to questions and inquiries raised by buyers.

As the chat bot is trained on more and more data, it will be able to provide more accurate and relevant answers to questions and inquiries

from buyers automatically, based on the responses generated by the system.

This semantic recognition and auto-response capability help sellers to elevate customer service with faster responses. At the same time, sellers' administrative costs are reduced as there is less reliance on manpower and manual processes.

Managing risks in e-commerce

The Legitimate Interests Exception can be relied on when the use of an individual's personal data is in the legitimate interests of the organisation and outweighs any adverse effect on the individual.

Under this set of exceptions, the collection, analysis, and insights into behavioural and transactional data paved the way for Alibaba to develop a centralised risk control tool to facilitate risk identification,

risk review, risk controls and handling, and risk decision-making.

The tool is powered by an algorithm that is able to detect and address existing and potential risks including fraudulent or abusive registrations and transactions by users. For example, if a user is linked to fraudulent, abusive or any other improper activities, the user may be denied access to services on the Alibaba platform.

To carry out the process of risk control holistically, accurately and effectively, the system has to be able to process all relevant personal data that is under the possession or control of Alibaba, wherever the data is available, regardless of location.

By training the risk control algorithm on this data, Alibaba is not only able to detect risks but is also able to produce an internal blacklist of fraudulent or abusive users and devices across all its business units.

Benefits

The new exceptions to consent under the PDPA have enabled Alibaba to build the necessary technology solutions to support its merchants, brands and other businesses in market research and customer service.

User insights are key to business growth and can bring about new and sustained benefits to organisations if applied effectively and responsibly.

New technology solutions developed as a result of these insights can help achieve higher operational efficacy, thereby cutting down costs and improving customer experience. Alibaba observed the following:

Improved operational efficiency

Application of the exceptions to consent enables Alibaba to make

effective use of personal data to automate processes in customer service and fraud detection.

More user insights also allowed merchants to conduct more targeted marketing and promotion campaigns. Overall, this has helped merchants to improve their productivity, reduce costs, and close sales more efficiently.

Positive customer feedback

Relevant and timely response to customer queries helps to enhance the buyer's experience, reducing the average time to resolve queries, and improving customer service reviews and survey results.

Increased traffic flow and revenue

Improved customer experience and increased consumer trust has contributed to an increase in the volume of online transactions, as part of a more sustainable growth in sales.

Stronger risk management

The ability to detect fraudulent or abusive transactions early has helped to protect the security and integrity of transactions on Alibaba's e-commerce platform.

The volume and percentage of fraudulent or abusive cases reported have been reduced since the implementation of the risk control tool.

Organisations can use the Business Improvement and Legitimate Interests exceptions to tailor their developments in various ways suitable for them to mitigate immediate or potential business challenges, as well as to innovate to create new opportunities to meet the needs of their customers.

Looking to make better use of your data with the PDPA's exceptions?

Find out more at www.pdpc.gov.sg/enhanced-PDPA-for-businesses.

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