

INDIAN INSTITUTE OF TECHNOLOGY JODHPUR

MSL-7320 INTRODUCTION TO DATA VISUALIZATION

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## Group Project: Getting the Next Swipe

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*Submitted by:*

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# Executive Summary

Based on the 2019 Customer Satisfaction Index of Singapore (CSISG) dataset, this report provides a thorough analysis of OCBC Bank's competitive position in the Singaporean credit card market. OCBC Bank's low customer satisfaction rating is confirmed by the analysis, which is bolstered by the data visualizations that are enclosed. More importantly, it reveals a sizable **"Loyalty Gap"** in which consumers use the card for convenience but do not actively promote the brand.

Our findings indicate that this gap is driven by underperformance in core areas that matter most to customers, particularly **Card Benefits** and **Rates/Fees**. The following report deconstructs these challenges through detailed data visualization and concludes with a set of prioritized, data-driven recommendations. The strategic imperative is to refocus resources on improving the core product offering, bridge the loyalty gap through targeted initiatives, and adopt a more nuanced, demographic-driven approach to regain a competitive edge.

## How to Run

In the main.R file, change the path that is written after the read excel, according to your own folder.

## 1. Introduction and Market Context

The Singaporean credit card market is intensely competitive, with approximately 9 million cards in circulation for a population of 5.7 million. In this saturated environment, customer acquisition is costly and retention is paramount. OCBC Bank currently faces a significant challenge, ranking among the lowest of major issuers in customer satisfaction. This analysis was commissioned to move beyond surface-level metrics and provide OCBC management with a clear, data-driven path to identify specific weaknesses and prioritize actions that will genuinely drive customer loyalty and market share growth.

## 2. Competitive Landscape Analysis

A thorough review of the market reveals a clear hierarchy where OCBC Bank is struggling to keep pace with market leaders.

- **Market Share Standing:** The **Market Share Pie Chart** establishes that OCBC holds a respectable third position among the top competitors, trailing market leaders DBS and UOB. However, the **Satisfaction vs. Market Share** bubble chart reveals a precarious position: while maintaining market share, OCBC's average satisfaction score is significantly lower than its primary rivals.
- **The Satisfaction Deficit:** The **Average Customer Satisfaction Bar Chart** quantifies this gap, placing OCBC (7.58) in the bottom tier, well behind leaders like DBS (7.72) and Citibank (7.69). While top competitors exhibit tall, narrow distributions indicating consistently high satisfaction, OCBC's plot is wider and flatter. This signifies a high degree of variance in customer experience—for every satisfied customer, many are neutral or dissatisfied.

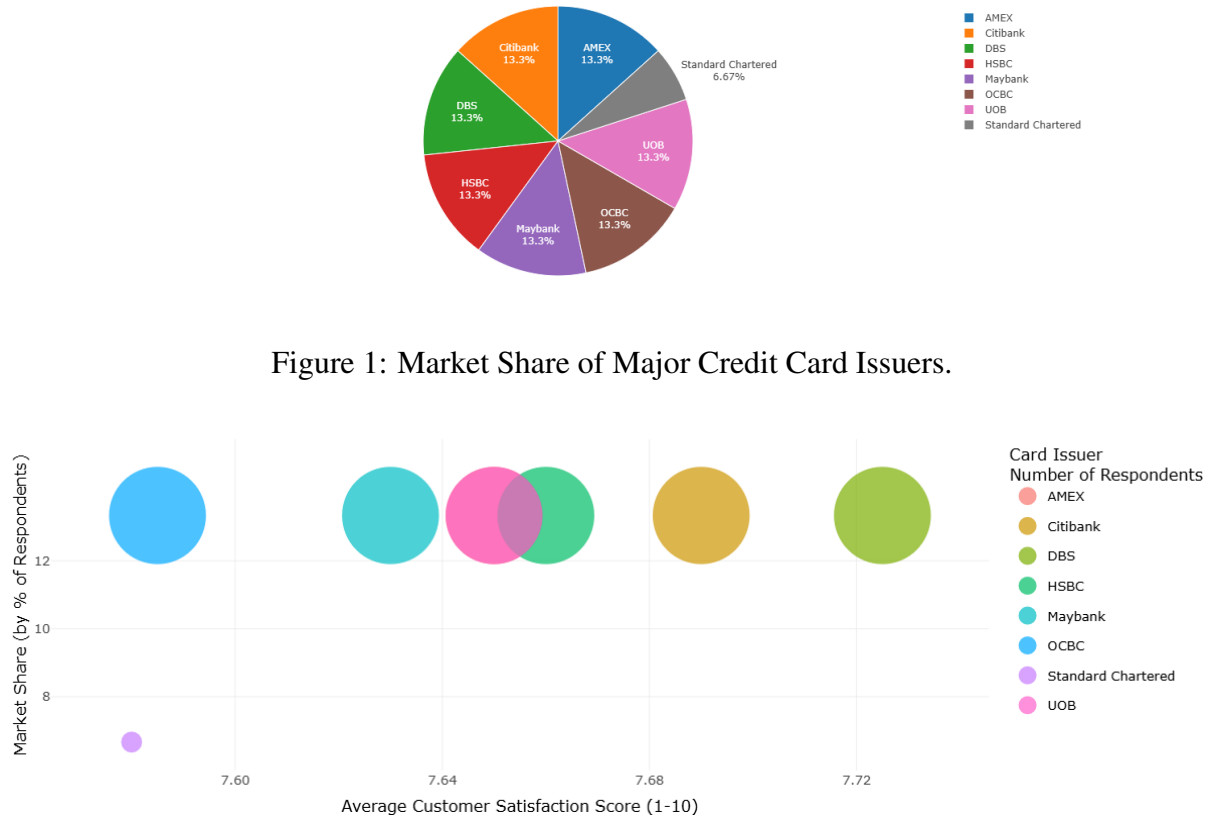


Figure 1: Market Share of Major Credit Card Issuers.

Figure 2: Satisfaction vs. Market Share Analysis.

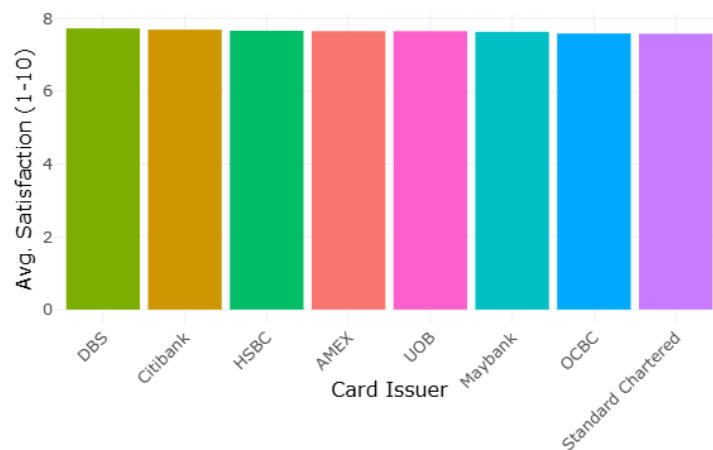


Figure 3: Average Customer Satisfaction by Issuer.

- Holistic Performance Comparison:** The **Attribute Performance Radar Chart** provides a multi-dimensional view of performance. Across key metrics including overall satisfaction, product quality, and service quality, OCBC consistently charts within the inner ring, while competitors like Citibank and Standard Chartered form the leading outer edge. This confirms that OCBC's underperformance is not isolated to a single attribute but is systemic across the customer experience.

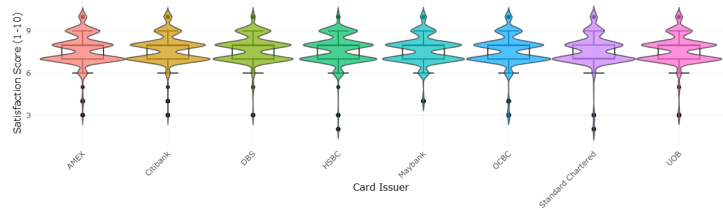


Figure 4: Distribution of Customer Satisfaction Scores.



Figure 5: Multi-Attribute Performance Comparison.

### 3. Uncovering the Root Cause: The OCBC Loyalty Gap

Simply measuring satisfaction is insufficient; loyalty is the true engine of sustainable growth. Our analysis reveals a critical weakness in OCBC's customer base.

- Defining the Gap:** The **Satisfaction vs. Likelihood to Recommend** scatter plot shows a strong positive correlation for all banks. However, OCBC's cluster of customers sits lower on the "recommend" axis compared to competitors at similar satisfaction levels. This is further proven by the **Customer Loyalty Distribution** chart, which shows OCBC has a proportionally larger segment of "Not Loyal" customers than market leaders. This indicates a passive customer base that may continue to use the card but will not act as brand advocates and is at high risk of churning.



Figure 6: Satisfaction vs. Willingness to Recommend.

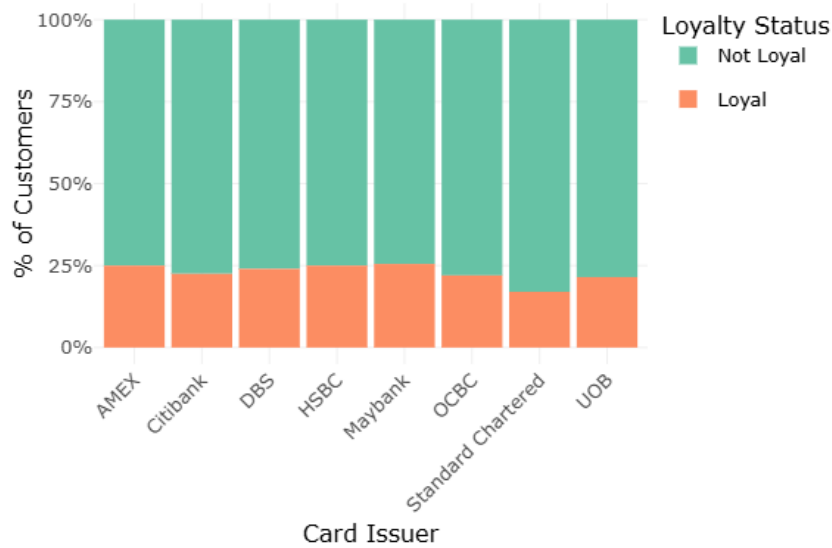


Figure 7: Customer Loyalty Distribution by Issuer.

- Pinpointing the Drivers of Loyalty:** Taking the analysis a step further, the **Loyalty Driver Analysis** quadrant chart identifies which attributes not only are important to customers but also have the highest statistical impact on driving loyalty. For the analyzed customer segment, **"Card Benefits"** sits firmly in the "Key Drivers" quadrant (High Importance, High Impact). This is the single most critical feature to get right.

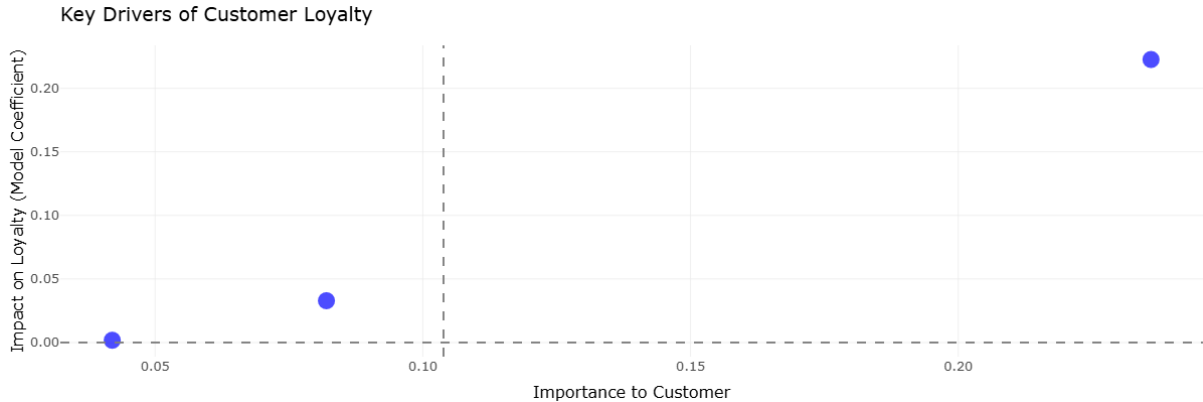


Figure 8: Key Drivers of Customer Loyalty.

## 4. Strategic Priorities for Improvement

To effectively allocate resources, it is essential to focus on areas that will yield the highest return. The **OCBC Improvement Priorities (Pareto Analysis)** chart is designed for this exact purpose, comparing OCBC's performance gap against competitor averages on the attributes customers deem most important.

The analysis reveals two clear, high-priority areas for immediate action:

- Card Benefits:** This attribute has the largest performance gap, meaning OCBC is underperforming the most here. Crucially, it is also rated as highly important by customers and is a key driver of loyalty.

2. **Rates/Fees:** This attribute shows the second-largest performance gap and is also of high importance to customers.

Focusing on these two areas first represents the most efficient path to closing the competitive gap and improving customer sentiment.

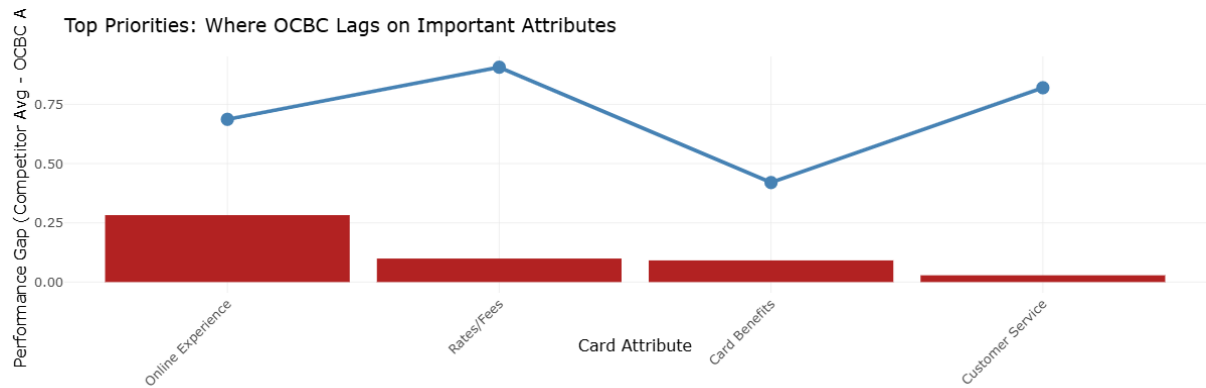


Figure 9: OCBC Improvement Priorities: Performance Gap vs. Importance.

## 5. Demographic Insights for Targeted Strategies

A one-size-fits-all strategy is insufficient in this market. Our demographic analysis reveals opportunities for more targeted engagement:

- **Income Profiles:** The **Customer Income Profile** chart shows that different banks appeal to different income brackets. OCBC can use this insight to tailor the value propositions of its card benefits to better align with the spending power and priorities of its core income segments.
- **Age and Service Quality:** The **Service Quality by Age Group** line chart indicates that service perception varies across age groups. There is an opportunity for OCBC to investigate and address potential service gaps for specific demographics, such as the tech-savvy 25-34 age bracket, where online experience is paramount.

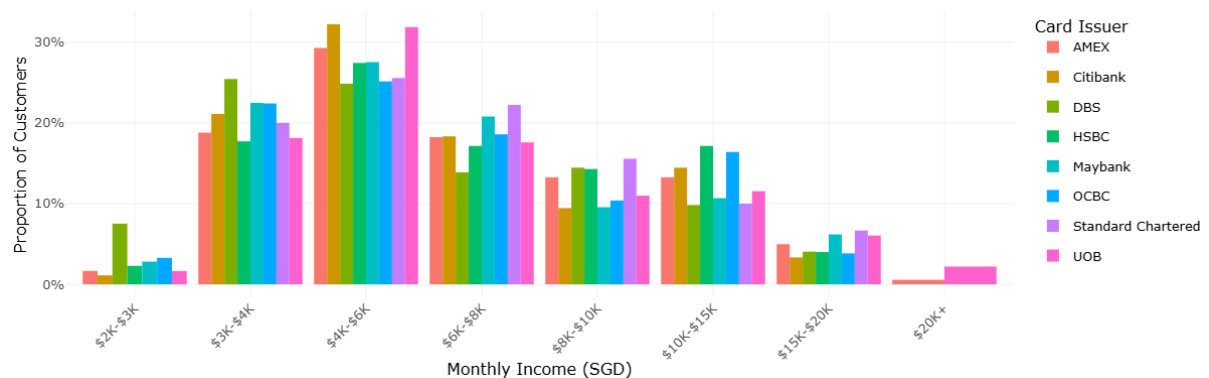


Figure 10: Customer Income Profile by Issuer.

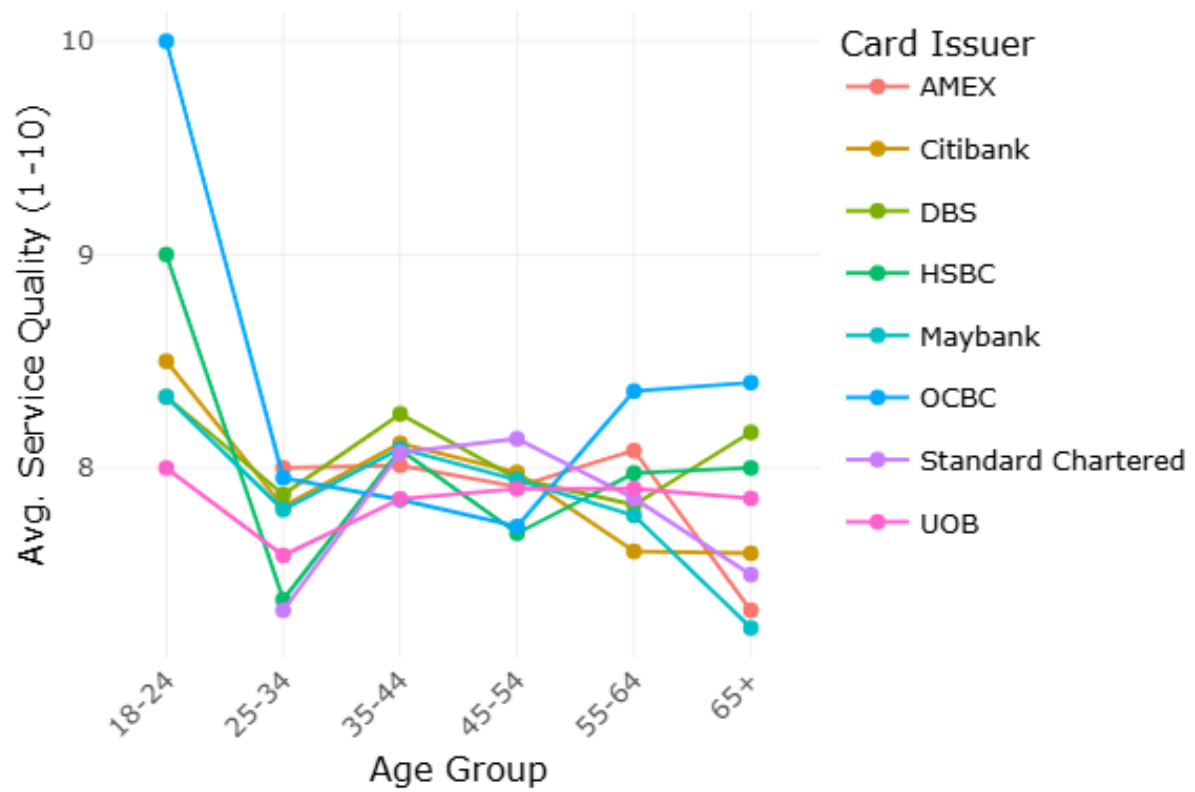


Figure 11: Average Service Quality Score by Age Group.

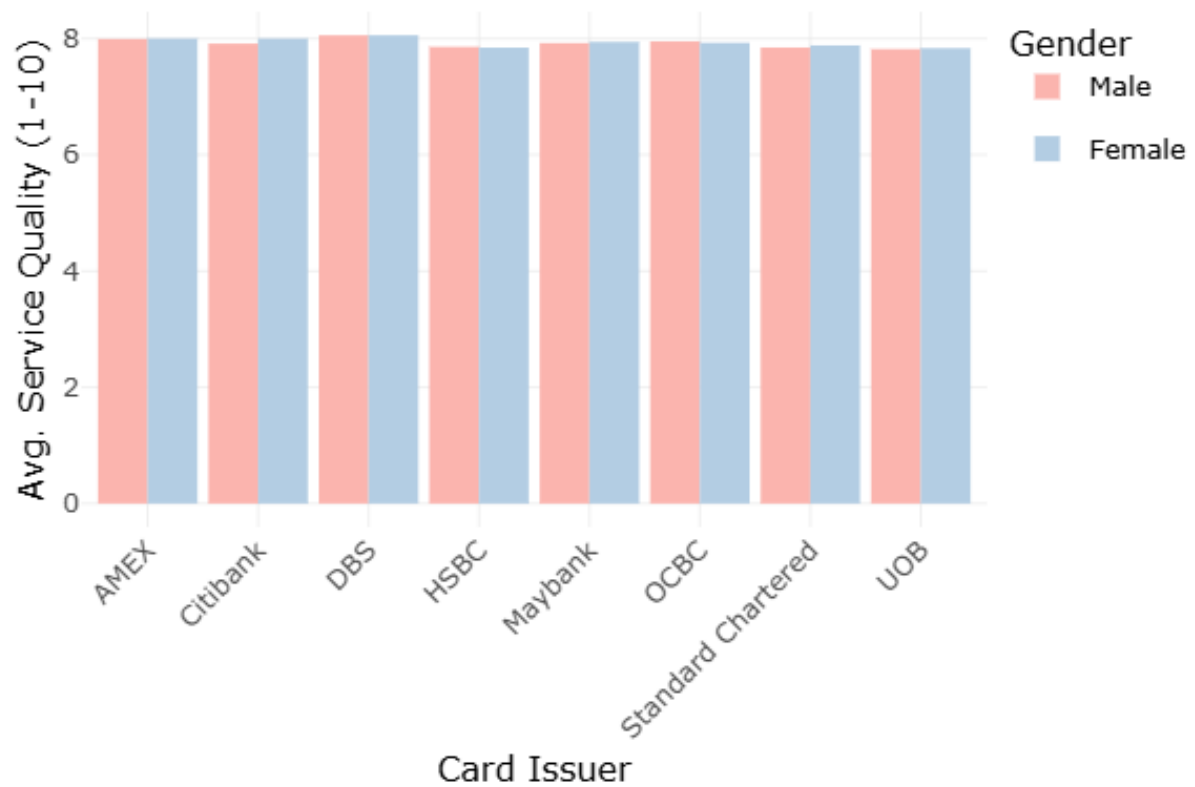


Figure 12: Average Service Quality Score by Gender.

## 6. Strategic Recommendations

Based on the comprehensive data analysis, we propose the following strategic recommendations:

### 1. Recommendation 1: Immediately Overhaul the Core "Card Benefits" Offering.

- **Action:** Conduct a head-to-head value proposition analysis of OCBC's cashback, rewards, and points systems against those of Citibank and Standard Chartered. Resources must be reallocated to enhance the tangible value of these core benefits.
- **Justification:** This is the #1 priority identified in the Pareto analysis and is the most significant driver of customer loyalty. Closing this gap is non-negotiable.

### 2. Recommendation 2: Launch a "Bridge the Gap" Loyalty Initiative.

- **Action:** Implement a high-value, frictionless referral program to incentivize word-of-mouth marketing. Introduce exclusive benefits or experiences for long-term, loyal customers to make them feel valued beyond simple transactions.
- **Justification:** This directly addresses the loyalty gap identified between card reuse and the willingness to recommend. The goal is to convert passive users into active brand advocates.

### 3. Recommendation 3: Implement a Targeted, Demographic-Driven Marketing and Product Strategy.

- **Action:** Segment the customer base and tailor card benefit promotions to different income and age groups. For example, partner with merchants popular among the 25-44 age demographic to offer exclusive discounts.
- **Justification:** The demographic data shows that customer needs are not uniform. A targeted strategy will improve the relevance and perceived value of OCBC's offerings, increasing engagement and satisfaction.

## 7. Conclusion

OCBC Bank faces a significant but surmountable challenge in the Singaporean credit card market. While its market share remains stable, it is suffering from a fundamental weakness in its core product offering, leading to low satisfaction and a dangerous loyalty gap. By shifting focus from broad-based initiatives to a data-driven strategy centered on enhancing card benefits, actively fostering loyalty, and tailoring value propositions to key demographics, OCBC can close the gap with its competitors and build a more resilient, profitable customer base for the future.