



Rateplan Registration and In-House Agent Prouctivity Report at Maxis Broadband Sdn Bhd

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ABSTRACT

This technical report presents an analytical study conducted at Maxis Broadband Sdn. Bhd., focusing on two key operational components within the Credit and Collection department: Rateplan Registration initiatives and In-House Agent productivity. The Rateplan Registration analysis aims to support recovery strategies for written-off customer accounts by identifying optimal subscriber base plans and effective sales channels that facilitate customer re-engagement. Using operational datasets spanning July to October 2023, data analysis techniques such as filtering, aggregation, and pivot-based summarisation were applied to evaluate customer registration patterns and channel performance. In parallel, the In-House Agent Productivity analysis evaluates the efficiency and effectiveness of recovery agents by examining action counts, recovery amounts, and payment distribution patterns. Data preprocessing and mapping techniques, including VLOOKUP, ranking mechanisms, and interval-based grouping, were employed to investigate variations in agent performance. The analysis reveals that agent productivity is influenced not only by the volume of actions performed but also by strategic handling of recoverable account segments, particularly smaller outstanding amounts. Overall, the findings provide actionable insights into improving recovery outcomes, optimising sales channel strategies, and enhancing workforce productivity. This report demonstrates the practical application of data analytics tools in supporting operational decision-making within a large-scale telecommunications organisation.

Keywords: Agent productivity, Maxis, Rateplan registration.

INTRODUCTION

Maxis, a leading converged solutions provider in Malaysia, offers a range of high-quality digital services encompassing voice, data, and solutions. The company is dedicated to integrating the best of technology to aid individuals, businesses, and the nation in staying ahead in a constantly evolving world. As digitalisation reshapes the way we interact and access services such as commerce, banking, and

entertainment, Maxis continues to innovate its products and services, drawing from its leading mobile offerings.

The company's brand purpose is "Always Be Ahead", which encapsulates its commitment to staying at the forefront of technological advancements and providing superior services to its customers. This purpose guides all aspects of the company's operations, from product development to customer service. The company's vision is to become Malaysia's leading converged solutions provider, providing an unmatched personalized experience to its customers. It aims to put people ahead of technology, ensuring that its offerings are easy to use, discover, and tailored to people's needs.

Maxis, a leading converged solutions provider in Malaysia, is headquartered at Menara Maxis in Kuala Lumpur City Centre (KLCC). In addition to its main headquarters, Maxis operates three concept stores known as 3 Maxis Concept Stores located in The Gardens Mall Midvalley, Sunway Pyramid, and Suria KLCC. These stores serve as innovative spaces where Maxis showcases its latest products and services, and engages with customers in a unique retail environment. The Credit and Collection (C&C) department, led by Amy Wong Chui Wen, is an integral component of Maxis' Sales and Service Division, overseeing the daily operations of credit and collection functions from their office in Sunway Pinnacle. Within the credit domain, the team analyzes individuals' risk profiles, determining credit limits based on factors like affordability index, credit score, and securing credit facilities to facilitate Maxis' installment plan, Zerolution. Simultaneously, in the collection segment, the team ensures timely payments, resolves past due payments, and nurtures positive vendor relationships. Collaborating with departments such as sales, customer service, and accounting, the team manages customer accounts seamlessly, contributing to the overall success of Maxis' business operations.

Under Amy's leadership, the department comprises several key individuals, each with specific roles and responsibilities. Charmaine Wong Mei Lai, the Head of Credit Strategy and Operation Management, assesses customers' credit worthiness and risk levels and assigns credit limits accordingly. Premala Devi Muandy, in charge of business planning, has led transformational projects, including the transition from UCCS to MCCS. Agnes Lee Sow Chan manages consumer collections, focusing on collection processes and operations to maintain a healthy consumer delinquency status. Punithavathy A/P Karthigasu handles enterprise collections, working closely with enterprise and finance for key account collection and maintaining a healthy Day Sales Outstanding (DSO) or aging for small and medium enterprises (SMEs) and corporates.

Other team members include Kalarani A/P S.Gobal Chetty, who manages payment channels and cost efficiency, attending to payment issues such as reconciliation and customer complaints; Kelvin Yap Loong Wei, who focuses on collection strategy and the C&C system and tools; and Woo Yuen Thern, the Head of Recovery Strategy and Operations, who drives recovery from written-off accounts and manages external debt collector agencies led by Remeshchandran A/L Balasubamanian, lawyers led by Shabirin Salimi bin Suleiman, and In-House recovery agents led by the In-House Team Manager, Salvinderjit Singh A/L Harjith Singh. The department houses a Performance and Analytics team, which includes professionals such as Safwan, a Contact Strategy Analyst. This team is responsible for creating and maintaining dashboards, and providing insights to all C&C teams for various improvement projects. Safwan's role as an analyst allows him to contribute to the team's analytical efforts, helping to analyze insights that inform decision-making.

THE TASKS

Rateplan Registration

Commencing at the end of June, the undertaken project, referred to as Rateplan Registration Initiatives, seeks to facilitate customers with old outstanding amounts to register for a new line with Maxis. Preceding this initiative, customers with write-off accounts were blacklisted, preventing them from acquiring a new line until settling their outstanding amounts. The permission for customers to register not only establishes a means of contact but also enhances overall reachability. The primary objective is to recover outstanding amounts from these customers. The assigned task within this initiative is to identify the optimal baseplan and top sales channel.

In-House Agents Productivity

The second task involved the analysis of agent productivity, specifically focusing on the In-House Agents Productivity Report, Collection report, and the In-House Agent Worklist. These files were provided by Safwan, the analyst, and served as the basis for the analysis. The productivity report, which showcases the performance of the agents for the month, was discussed by my supervisor, Thern. The report details the various actions taken by the agents and the amounts successfully recovered. This report is instrumental in evaluating the effectiveness of the team and setting future goals.

Thern drew attention to an anomaly pertaining to three In-House agents, namely Nithiya, Mhishamas, and Bganges. According to Thern, Bganges was identified as the top agent, as evidenced by Figure 1, with Bganges exhibiting high recovery rates and a substantial number of actions. Contrarily, despite Nithiya achieving the highest recovery amount in a given month, her number of actions was significantly lower compared to Mhishamas, who performed a greater number of actions but had the lowest recovery amount. This pattern of performance raised questions about the productivity and efficiency of these agents, prompting Thern to request an analysis to clarify these anomalies.

Initially, it seemed counterintuitive, especially considering that Nithiya had a larger number of accounts with high amounts, suggesting that she should have been able to handle more actions. However, given her high recovery rate, it was hypothesised that Nithiya might be spending less time on individual accounts and hence, taking fewer actions. Thern requested an analysis to verify this hypothesis and gain deeper insights into the agents' performance, specifically Nithiya, Mhishamas, and Bganges, who is the top agent according to Thern. This task represents a significant opportunity to understand the factors contributing to agent productivity and identify areas for potential improvement.

Figure 1

In-House agents

acc_rank	1	
Agents	Sum of Amount Recovered	Count of Action
BGANGES	189,911.19	1,873
NITHIYA	163,811.40	1,124
MSYAUFIQ	97,935.12	1,052
ADZHAMAD	88,020.84	994
MZULFIRD	81,873.73	1,177
MHISHAMAS	69,807.04	1,743
IKHWANF	27,585.98	1,399
ZNSYAZWANI	17,842.26	746
CMERLYN	10,281.64	528
RNASILAH	2,820.50	262
Grand Total	749,889.70	10,898

IMPLEMENTATION

Rateplan Registration

Commencing at the end of The implementation of the Rateplan Registration Initiatives project comprised several crucial steps, each contributing to the comprehensive analysis of customer accounts.

Step 1: Data Collection

The initial step involved receiving the dataset from analyst Safwan. The dataset, encompassing data from March 2023 to October 2023, comprised 35 attributes but only five of them were important to these tasks which are, 'sales_channel_new', 'Activation_Reporting_Month', 'wo_rnk', 'SUBSCRIBER_BASEPLAN', and 'CUSTOMER_ACCOUNT_ID' (refer to Table A1 in Appendix A).

Step 2: Understanding Data

Upon data collection, a thorough examination was conducted in collaboration with my supervisor, Thern. Filtering 'Activation_Reporting_Month' from July onwards, in line with the initiative's commencement, required close attention. Thern's insight facilitated a profound understanding of the dataset. Additionally, familiarity with the Pivot Table tool in Excel was established to ensure precise and efficient analysis.

Step 3: Creating a Pivot Table

Equipped with a comprehensive understanding, the next step involved creating a Pivot Table. The 'SUBSCRIBER_BASEPLAN' was placed in the rows section, and 'CUSTOMER_ACCOUNT_ID' was set as a count in the values section. 'Activation_Reporting_Month' served as a filter for the months from July to October.

Step 4: Analyzing Data

Following the Pivot Table setup, a condensed data summary provided valuable insights. The dataset comprised 70 base plans, rendering it challenging to manage due to its extensive size. To streamline the analysis, the value filtering feature in the Pivot Table was employed to focus on the top 10 base plans. The analysis yielded a clear picture of the best base plan. The subsequent phase of the project focused on identifying the most top sales channel, mirroring the structure of the first implementation and utilizing the same dataset.

A separate Pivot Table was created, segregating the analysis of the best base plan from that of the best sales channel. In this stage, 'sales_channel_new' was positioned in the rows section, with CUSTOMER_ACCOUNT_ID as count in the value section. The configuration allowed an analysis based on the count of customers. Filters were applied for 'Activation_Reporting_Month' (July to October) and 'wo_rnk' to address duplicities in 'CUSTOMER_ACCOUNT_ID'. Only the first occurrence (rank 1) was considered. Post-filtering, the results provided insights into sales channel effectiveness. To enhance comprehensibility, the analysis was visualized using a pie chart.

In-House Agents Productivity

Step 1: Data Mapping

Upon receiving the files from Safwan, the analyst, the initial step involved a thorough examination of the monthly In-House Agents Productivity Report for August. There were 14 attributes and only 5 of them were used in this task (Table B1 in Appendix B). It was observed that the column for payment recovered was absent. Following Thern's guidance, an Excel function, named VLOOKUP, was employed to map out the amount recovered from the Collection Report.

Step 2: Data Preprocessing

Recognizing duplicity in the productivity report data, particularly where the same account was handled a few times by the different agent, a sorting process was initiated. Sorting from the latest date to the earliest date, an Excel formula was employed to rank the accounts by agent to only count the first occurrence only.

Step 3: Initial Pivot Table Analysis

To gain insights into the agents' performance, a pivot table was created. 'Account Number' was placed in rows, 'Payment Recovered' as a sum in values, 'acc_rank' as Filter 1, and 'Agent' as Filter to compare agents Nithiya, Mishamas, and Bganges. Despite facing initial hurdles, such as a large data set that made it difficult to obtain a clear understanding, a discussion with Thern led to a revised approach involving grouped intervals.

Step 4: Grouping Amounts by Intervals

To address challenges in the initial analysis, 'Payment Recovered' was rounded to the nearest hundred and grouped into intervals of 500. This approach aimed to facilitate a more effective comparison of agents' performance.

Step 5: Exploring Recovery by Write-Off Amount

Further exploration focused on understanding the nature of Nithiya's recovered amounts. Mapping out the 'Net Write Off' from the agent's worklist to the productivity report, a new pivot table was created. 'Net Write Off' was placed in rows, 'Payment Recovered' in columns, and both fields grouped into 500-interval ranges. Results were obtained and a nice distribution was shown.

RESULTS AND DISCUSSION

Rateplan Registration

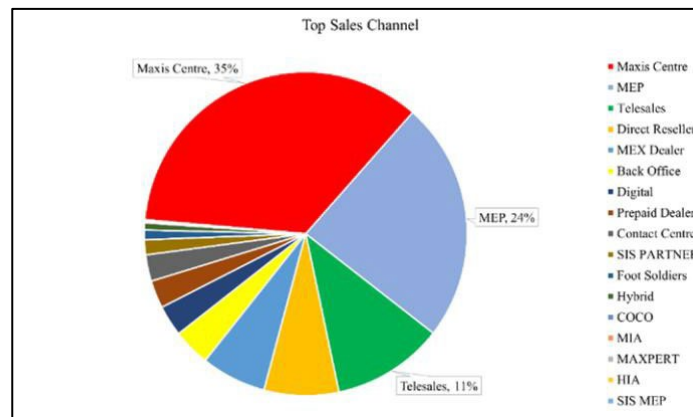
This analysis has yielded some significant insights. Figure 5 showcases a pivot table detailing the best base plan, highlighting the top 10 base plans. The analysis of the top base plans revealed some interesting insights. From the figure shown, the 4G WIFI TRIAL PLAN hold the highest number of customers, totaling 40,944. However, this plan and the MAXIS FIBRE – VOICE plan are trials or offers, and may not necessarily reflect the long-term preferences of the customers. Excluding these two plans, the HOTLINK POSTPAID_40 plan emerges as the most viable option, with 4,824 customers. The next

highest are the MAXIS POSTPAID 79 plan with 4,468 customers, followed by the MAXIS POSTPAID SHARE 48 plan with 4,354 customers.

This analysis suggests that customers with write-offs tend to opt for more affordable or entry-level plans. This could be due to a variety of reasons, such as financial constraints, lack of awareness about other plans, or preference for simplicity and cost-effectiveness .

Figure 2

Pie Chart for the best sales channel



The analysis of the most effective sales channels was conducted by examining the number of customers each channel had, as shown in Figure 2. The results showed that Maxis Centre had the largest number of customers at 9633, followed by MEP with 6581 customers, and Telesales with 3065 customers. These figures indicate that Maxis Centre has the most efficient sales channel in terms of customer engagement. This outcome highlights the efficiency of the Maxis Centre channel and sets it as the main contributor to recovery within the Rateplan Registration Initiatives.

In-House Agents Productivity

The exploration of agent productivity, with a focus on individuals Nithiya, Mhishamas, and Bganges, uncovered significant insights and patterns within the data. Looking at Table 1, in examining their proficiency with smaller bill amounts, specifically RM100 to RM2500, agents Nithiya and Bganges displayed a commendable count of account numbers, suggesting a high level of efficiency in managing these lower-value transactions. Conversely, Mhishamas demonstrated a lower count, though not less than half of Nithiya or Bganges. This observation implies varying degrees of effectiveness among agents when handling transactions involving smaller bill amounts.

Moving to the analysis of larger bills, exceeding RM5000, the performance of agents Nithiya, Mhishamas, and Bganges appeared relatively comparable. The data indicated that all three agents exhibited a similar level of effectiveness when dealing with larger bill amounts, showcasing a consistent approach in managing transactions of higher value.

Looking at how agents handle smaller bill amounts, we saw that Nithiya and Bganges were good at it, while Mhishamas wasn't as good. This suggests that there's a real difference in how well agents perform.

Table 1

[illegible]

Distribution pivot table of write off amount against payment recovered

employed by Nithiya, suggesting a strategic prioritization of accounts with a higher likelihood of successful recovery within a specific range.

In summary, the exploration of agent productivity, focusing on Nithiya, Hisham, and Ganges, uncovered notable variations in performance. Successful agents, exemplified by Nithiya and Ganges, demonstrated proficiency in dealing with smaller bill amounts, whereas Hisham exhibited inconsistent effectiveness. The analysis further delved into the distribution of Nithiya's write-off amounts concerning payments recovered in the 500-1000 interval, showcasing her adeptness at handling smaller bills. These findings underscore that agent productivity extends beyond sheer quantity, emphasizing the significance of effectively managing smaller bill amounts. Recognizing this unique skill is crucial for optimizing strategies to enhance overall agent performance and team productivity.

CONCLUSION

Industrial training plays a crucial role in academic education by bridging the gap between theoretical knowledge and real-world practice (Ayob et al., 2013). It contributes significantly to the development of generic employability skills such as communication, teamwork, and professional work ethics (Roseley et al., 2021), while also providing graduates with an early advantage in their career development by enhancing readiness for the workplace (Wilton N, 2012, as cited in Ayob et al., 2013). For industrial training to be effective, its objectives must be aligned with both industry requirements and student learning needs to ensure a smooth transition from academic environments to professional settings (Ayob et al., 2013). In addition, industrial training serves as a platform for students to assess their skills, interests, and career preferences through hands-on experience and professional networking, thereby improving their competitiveness in the job market (Collins, 2002). While some students perceive industrial training as merely an academic requirement, others view it as a valuable opportunity to explore new fields and broaden their professional horizons (Neuman, 1999; Seymore II & Higham, 1996).

Undertaking the Rateplan Registration Initiatives and the analysis of In-House Agents' productivity reports has proven to be highly beneficial in several aspects. Firstly, the assignments significantly enhanced technical skills, particularly in utilizing Excel functionalities such as VLOOKUP for data mapping, and employing ranking mechanisms. The hands-on experience with large datasets, Pivot Table creation, and data analysis offered practical insights into real-world applications of data manipulation and interpretation. This, in turn, has fortified proficiency in handling complex datasets, ensuring a more nuanced approach to future data-driven tasks.

Beyond technical skills, the assignments have also contributed to the development of valuable soft skills. The need for collaboration and effective communication was evident in discussions with team members, supervisors, and analysts like Safwan and Thern. Collaborating on the Rateplan Registration Initiatives project involved working closely with Safwan to gain a comprehensive understanding of the dataset and its nuances. Similarly, discussions with Thern during the analysis of the In-House Agents' productivity report required effective communication to address anomalies and refine analysis approaches.

Furthermore, the assignments have facilitated a deeper understanding of the telecommunications industry, particularly within the context of Maxis. Exploring the Rateplan Registration Initiatives provided insights into customer interactions and recovery strategies, while the analysis of agent

productivity shed light on the intricacies of optimizing performance within the organization. This industry-specific knowledge is invaluable for future roles within the telecommunications sector or related fields.

In essence, the assignments have not only contributed to technical and soft skill development but have also enriched industry-specific knowledge, enhancing overall capabilities and readiness for future professional endeavors.

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