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CAPSTONE PROJECT PUBLIC SUMMARY

EVALUATION OF INTERNAL KEY METRICS AND

DATASETS AT RAIFFEISEN DIGITAL BANK

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Introduction

This summary outlines my capstone project at (RDB) Raiffeisen Digital Bank. RDB, headquartered in Vienna, Austria, holds an Austrian banking license and specializes in offering digital banking products and services to private individuals. After almost two years of preparations, a new "Digital Retail" division was created in Raiffeisen Centrobank AG (RCB), with Alexey Kapustin being appointed as a responsible board member. The first loan under the name "Raiffeisen Digital Bank" was launched six months after the creation of RDB. In December 2022, RDB became a separate legal entity as a bank.

Reports, Findings and Improvements

The project at RDB was initiated to evaluate the internal reporting standards and develop them. My first task involved reviewing the existing reports to assess the effectiveness of our utilization of comprehensive data on our customers and daily activities. These reports serve multiple purposes, however, my primary objective was to determine whether they adequately cover the key areas of acquisition, monetization, and engagement¹.

¹ The acquisition refers to the acquisition of new customers. The monetization refers to turning the acquired customers into the revenue stream for the bank. The Engagement part refers to how and on what level the customers are engaged in banking activities

After sorting out the reports and clarifying them, the next step for me was to dig into the reporting standards, and the digital banking market to find what we could improve on existing ones or what kind of new reports could have been made using the huge amount of data we possess. I have proposed leveraging the existing customer data collected during the account creation process including ones given in the *Table 1 - Demographics*.

I believe this approach will not only facilitate the analysis of current customer characteristics but also identify the customer segments most likely to manifest long-term loyalty and profitability. It will enable us to monitor these changes throughout the years. The main rationale behind these ideas is as follows:

Firstly, these reports allow us to comprehend the personal characteristics of our customers, supporting targeted market segmentation. For instance, upon having observed that most of our customers, 32%, fall within the 30-40 age group, possess moderate income, are male, have completed higher education, and are married², we can develop a clearer understanding of our customers. Secondly, my justification was that with these reports, RDB could gain a fresh perspective on market positioning and assess our position within the Polish and Romanian markets based on our customer segments. Lastly, this initiative could also benefit our marketing team, as it enables us to identify the main characteristics of our long-term customers and reconsider why other customer segments may show less interest in our services. I will discuss more about this in the following parts of my document.

One of the reports I have proposed to create is "Retention Rate by Groups of Customers". This metric will focus on individuals who are already our customers and utilize our services, such as savings accounts, current accounts, loans, and more. Additionally, we have decided to include a time-based analysis to provide further insights. The sample model is provided in

 $^{^2}$ These characteristics do not represent the actual customer base of Raiffeisen Digital Bank.

Figure 1 - Vintage funnel for retention rate. My project involved the creation of a Taxonomy Report, which outlined the definitions and calculation methodologies for the metrics we use. The objective was to ensure a consistent understanding of these metrics across the organization. My next proposal was to integrate the cost per customer in the marketing reports of the sales funnel. (*Figure 2 - Sales funnel*). This data will facilitate a quick and comprehensive understanding of the costs associated with each campaign.

Regression Analysis

The next part of my Capstone Project was to do regression on current accounts. This part was the most complicated as it needed to segregate the data in a comprehensive way to do the regression. I started working on models by gathering the variables that could have been implemented in the regression. I have started with current accounts to do the regression analysis for the "Churn rate" on those accounts (The rate at which customers stop using RDB). The core objective is that based on the characteristics of the customer we will have an estimation based on past data of how long we can expect this customer to remain as our client.

My outcome for the regression is that even though we do not possess huge time data like many other banks we still can explain the behaviour of 25.19% of customers in daily banking and can make the prediction which will explain a quarter of them. The main point is that this number can be increased over time as the data used will increase significantly and the outcome will have more explanatory power than we have right now. (A detailed explanation of the results cannot be shared as it contains sensitive data.)

In the end, I would like to highlight that I believe this project was meaningful work for the company and myself as well. On the one hand, we developed further the reporting level, and on the other hand, I have developed new skills and got a deeper understanding of the banking industry's everyday activities and reporting standards.

Appendix

Table 1 - Demographics

- 1. Age
- 2. Gender
- 3. Main income source
- 4. Position
- 5. How often do they use RDB
- 6. If the phone wallet is linked or not
- 7. Average balance
- 8. Number of products

Figure 1 - Vintage funnel for retention rate

rep_dt	2023-11-30	2023-12-31	2024-01-31	2024-02-29	2024-03-31	2024-04-30	2024-05-31	2024-06-02
vintage_dt	account_cnt							
2023-11-30	10281	9767	9279	8816	8376	7958	7561	7183
2023-12-31		9731	9245	8783	8344	7927	7531	7155
2024-01-31			9121	8665	8232	7821	7430	7059
2024-02-29				8125	7719	7334	6968	6620
2024-03-31					7134	6778	6440	6118
2024-04-30						5143	4886	4642
2024-05-31							3871	3678
2024-06-30								1000
Total	10281	19498	27645	34389	39805	42961	44687	43455

Figure 2 - Sales funnel

<u>Report_date</u>	<u>Network</u>	Campaign_name	<u>Draft cnt</u>	Registration_complete	Approval_rate	proposal accept cnt	Constract Sign cnt	Average_cost
10-May-24	Network_1		90	50	100%	43	41	2.5
09-May-24	Network_1	-	88	49	90%	42	40	2.5
08-May-24	Network_1	-	35	20	100%	17	17	2.5
07-May-24	Network_1		14	8	100%	7	7	2.5
06-May-24	Network_1		98	54	100%	46	44	2.5
05-May-24	Network_2	-	6	4	90%	4	4	3.5
04-May-24	Network_2	-	62	35	100%	30	29	3.5
03-May-24	Network_2	-	76	42	90%	36	35	3.5
02-May-24	Network_2	-	14	8	100%	7	7	3.5
01-May-24	Network_2	-	5	3	95%	3	3	3.5
30-Apr-24	Network_3	-	64	36	100%	31	30	4
29-Apr-24	Network_3	-	5	3	95%	3	3	4
28-Apr-24	Network_3	-	7	4	100%	4	4	5
27-Apr-24	Network_3	-	55	31	85%	27	26	5
Total			619	347		300	290	

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Note: The data presented in this report are illustrative and do not reflect the actual figures from Raiffeisen Digital Bank. The numbers are provided solely to demonstrate the process.

³ 1st column - the reporting date of the data, 2nd column - the name of the network where we placed it, 3rd - the name of the campaign, 4th - number of draft accounts created, 5th - the total number of people who completed the registration, 6th - the approval rate from our side on registered accounts, 7th - the number of approved accounts, 8th - the number of people who signed the contract, 9th - the average cost per signed contract. Note: The data presented in this report are illustrative and do not reflect the actual figures from Raiffeisen Digital Bank. The numbers are provided solely to demonstrate the process.