

ACR Loyalty

**Course:**

Technologietransfer und Unternehmertum mit Schwerpunkt auf Künstliche Intelligenz

Participants:

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1 Summary

Grabbing the attention of the customer is something that most companies excel at. However, keeping the customer interested and invested in the brand is much harder. This is where our loyalty program comes into play. It introduces a novel and immersive gamification approach that elevates the traditional concept of reward systems. Users earn points following each purchase, but the innovation lies in AI-generated tasks, adding an element of intrigue and engagement. The AI aims to tailor tasks that are more suited to the users based on their behaviours and interactions with the brand. Furthermore, the program features a unique tier of tasks that reward users for reaching specific thresholds, like purchasing a certain quantity of a particular product type or accumulating a defined amount of reward points. Achieving these tasks will allow the user access to tangible benefits in the form of blockchain-based tokens. These tokens serve both as collectable trophies and as redeemable assets on the platform, offering exclusive deals and enhancing user engagement. Unlike conventional loyalty programs that often lead to mundane point redemptions, this approach intertwines the concept of value appreciation.

2 Business idea

2.1 Range of services

Our customer loyalty programme, ACR Loyalty, offers the service of AI-Generated tasks and rewards in the form of blockchain tokens.

AI-Generated Tasks: Personalized challenges based on user behaviour, encouraging additional purchases and upselling. Tasks are aligned with user interests and seasonal trends to drive sales.

Blockchain Tokens: Reward users for task completion and hitting milestones with blockchain-based tokens. These tokens offer both real value and access to exclusive platform deals.

2.2 Unique Selling Proposition/Customer Benefits

The Unique Selling Proposition (USP) of our loyalty programme is the integration of AI-generated tasks and rewards in the form of blockchain tokens.

Customer Benefits: AI-generated tasks encourage users to consider complementary purchases, driving sales and boosting average transaction values. By using AI, we offer customized tasks which are based on user behaviour. These tasks are matched to seasonal trends and user intentions so that users increase their purchases. After completing the tasks, the users are rewarded with blockchain tokens.

2.3 Legal form

We have selected the Limited Liability Company LLC (Gesellschaft mit beschränkter Haftung - GmbH) as the legal structure for our loyalty program company. The reason for our

chosen approach is the advantages of an LLC such as limited liability, ownership flexibility and adaptability. To meet all necessary legal requirements we will work with legal experts.

3 Company

3.1 Founder

Ahmed Fourati is a passionate and driven entrepreneur with a strong vision for our company. During his computer science degree at Technical University Darmstadt, Ahmed gained invaluable experience in blockchain development at Web3 company Catblox with the Puma brand. After this project, he continued working with Aiddrop.io, a non-profit organization that facilitates crypto donations. It was during his work at eekigai web2 and web3 branding company did he come up with the idea for our company.

Chen Yang's journey began with a Bachelor's degree in Computer Science, followed by two years of master's study at Technical University Darmstadt. During this time, she honed her skills in software development and AI algorithms, understanding their potential to reshape industries.

Ralf Konrad holds a bachelor's degree in computer science. He is currently pursuing his master's degree at Technical University Darmstadt. With a strong background in machine learning and automation, he is passionate about staying at the forefront of technology and innovation. With his experience in automation, he is able to automate daily tasks within the company.

3.2 Motivation

Traditional loyalty programs often fall short of fostering genuine customer loyalty, resulting in stagnant growth and missed opportunities. We envision a future where businesses can build meaningful, long-lasting relationships with their customers, leading to increased customer retention, brand loyalty, and sustainable business growth.

By leveraging AI algorithms, we can analyze vast amounts of customer data, gaining valuable insights into individual preferences, behaviour patterns, and purchasing habits. This enables us to offer personalized rewards and incentives tailored to each customer's unique preferences, ensuring a seamless and delightful experience that keeps them coming back.

As AI and blockchain technologies evolve, so will our program, enabling us to introduce new features, capabilities, and integrations to enhance the customer experience continually. We see our loyalty program as a dynamic, living platform that adapts and grows with the needs and preferences of our customers and partner businesses.

The idea was born out of a personal experience with a loyalty program called "PayBack". Some customers diligently collect points with each purchase and redeem them for exciting rewards. However, as time went on, they realized that the rewards were not as enticing as they seemed. The options were limited, and most of the rewards were items they had no interest in. Therefore our group realized that by combining AI's power to understand customer preferences and behaviours with blockchain's integrity and decentralization, we could create a loyalty program that genuinely valued and rewarded customers' loyalty.

3.3 Strengths and weaknesses

Strengths:

Utilizing AI, our loyalty program can analyze vast amounts of customer data to gain deep insights into individual preferences, behaviours, and purchase patterns. This enables us to offer highly personalized rewards and incentives, creating a more meaningful and engaging experience for each customer. Businesses can better understand their customers' needs and tailor their offerings accordingly, fostering stronger brand-customer relationships.

By offering personalized rewards and incentives, our loyalty program increases customer satisfaction and encourages repeat purchases. Engaging loyalty experiences build a sense of attachment to the brand, leading to higher customer retention rates. Additionally, AI-driven engagement strategies, such as targeted promotions and personalized offers, keep customers actively involved with the program and the associated businesses.

The innovative combination of AI and blockchain sets our loyalty program apart from traditional ones. This unique proposition attracts both customers seeking personalized experiences and businesses looking to adopt cutting-edge technologies.

Weakness:

Integrating AI and blockchain technologies into the loyalty program requires substantial upfront investment in software development, infrastructure, and specialized talent. The initial implementation costs may pose a challenge, especially for startups and smaller businesses with limited resources.

Although blockchain technology has shown immense potential, its mainstream adoption is still evolving. The adoption of a new loyalty program based on AI and blockchain may face resistance from customers who are unfamiliar with these technologies. Convincing customers to transition from traditional loyalty programs to our innovative approach may require educational efforts and may not be immediately successful.

3.4 Permission

As a user-centric loyalty program, we prioritize transparency and data privacy. By participating in our customer loyalty program based on AI and blockchain, users grant permission for the collection, storage, and utilization of their data in compliance with applicable data protection laws and regulations. This permission is essential to provide a seamless and personalized loyalty experience and to ensure the program's overall effectiveness.

Users provide consent for the collection of specific data points, including but not limited to purchase history, transaction details, preferences, and behavioural patterns. This data is used to generate insights using AI algorithms, enabling us to offer personalized rewards, promotions, and tailored experiences.

User data collected through the loyalty program is stored securely on the blockchain, ensuring its integrity and immutability. The blockchain's decentralized nature eliminates single points of failure, reducing the risk of data breaches. User data is encrypted to safeguard personal information and prevent unauthorized access.

4 Target group

Our AI and blockchain-based loyalty program targets tech-savvy consumers, frequent shoppers, and brand-conscious businesses. In addition, we want to target small and medium-sized businesses that want to improve their customer loyalty and efficiency. Our customer loyalty program focuses on the hospitality and retail industries, early technology adopters, and environmentally conscious consumers, and aims to create a loyal and engaged community of participants that benefits customers and partner companies alike.

5 Market and branch analysis

As the interest in blockchain technology continues to surge, evidenced by the increasing search trend on Google ([Figure 1](#): Blockchain research occurrences in Google worldwide from January 2004 until July 2023), businesses and brands are actively seeking innovative ways to integrate this revolutionary technology into their customer experience. In parallel, loyalty programs have become a necessary marketing strategy, with more than 90% of businesses incorporating such programs into their branding ([Source](#): Industry Report 2022).

In 2023, the global market for loyalty programs witnessed substantial growth, reaching an estimated market cap of around 180 billion dollars ([Source](#): Market Research Report on Loyalty Programs, 2023). This significant market size presents a substantial opportunity for our loyalty program, emphasised through the usage leveraging high-end technologies.

Incorporating AI to create a well-developed and immersive user experience aligns perfectly with the growing trend of generative AI ([Figure 2](#): Artificial Intelligence research occurrences in Google). Generative AI has been gaining momentum across industries, providing businesses with novel ways to personalize interactions and create engaging content for users. By utilising AI in our loyalty program, we aim to harness this rise in interest and deliver a highly customised and user-centric experience that will captivate and immerse the user.



Figure 1: Blockchain research occurrences in Google worldwide from January 2004 until July 2023



Figure 2: Artificial Intelligence research occurrences in Google worldwide from January 2004 until July 2023

6 Competition

In the pursuit of optimising and capitalising on creating immersive user experiences, several companies are offering solutions to engage communities and provide rewards. This is a detailed review of the big competitors in this space:

Galxe: Galxe presents a plug-and-play solution for Web3 projects to engage their communities through rewards, including tokens. The service in question provides a pontification system, on-chain rewards and tasks. However, it should be noted that Galxe's offering is not designed as a dedicated loyalty program but can be adapted by brands by shifting their services to the web3 space. This may require additional effort and time from the custom moper's end. Additionally, tasks are generated manually by the brand, which can add complexity to the process.

LoyaltyLion: LoyaltyLion offers a Shopify plugin that implements a task-based points rewarding system. Brands using LoyaltyLion have the flexibility to create and customize tasks, assign point values, and set conditions for task completion. The platform includes a user-friendly interface for manually managing points and tracking user progress. However, similar to Glaxe, the task creation process and point management demand effort from the customer brand. Added to that, this company's pricing model is based on a monthly subscription system plus premium plans available based on feature requirements.

Comparison to Our Business: While our competitors offer valuable solutions, our business aims to stand out by focusing on automation and leveraging cutting-edge technologies. Our platform aims to facilitate the rewarding process by offering an automated but immersive, thus organic and not robotic, user experience. Unlike Glaxe and LoyaltyLion, where task creation and point management require brand involvement, we aim to reduce manual efforts and enable seamless hands-off rewards fulfilment for our customers. Additionally, we differentiate ourselves from Emarsys by prioritizing speed, efficiency, and a tech-forward approach to deliver a superior customer loyalty program.

7 Marketing

7.1 Location

The company's location was chosen strategically. Our business will be founded in Frankfurt Germany. As we all know Frankfurt is not only a major financial centre but also a city that hosts the headquarters of some of the world's largest international corporations and prominent German brands. This allows direct real-life contact with key decision-makers, executives, and stakeholders from these industry-leading companies.

7.2 Communication and marketing

The communication and marketing will be mainly based on two main pillars real-life and digital. The digital outreach will be done through Twitter and Linked In. Twitter is a large hub for web3 companies as it has been supporting blockchain technology since the start through different features allowing this community to share their on-chain goods. LinkedIn is the largest communication platform used by companies worldwide. The real-life communication will be done through word-of-mouth marketing where our customer brand's executives and CEOs will be doing all the heavy lifting.

7.3 Production politics

ACR Loyalty strives aims to create high-quality service. The technical product has best-practice techniques. We invest in state-of-the-art (SOTA) technology to guarantee the highest possible levels of optimisation.

7.4 Price politics

The strategy we incorporate in our business allows it to be transparent as much as possible. The use of a down payment for the customization and adaptation of the use case of the customer allows the achievability of high-quality product and give insurance to the customer. Following it with the possibility of variable monthly subscription fees, allows the customer to choose the services they need. Those services can be presented as maintenance and post-deployment development like adding new features or updating the application.

8 Procedures / Organisation

Ahmed Fourati (Chief Technology Officer - CTO): Ahmed Fourati will oversee software development and operations powered by AI in his capacity as CTO. His expertise will ensure that loyalty programs are flawlessly integrated into our clients' websites and applications. He will also oversee key departments, including UI/UX design, data science, blockchain integration and software development.

Chen Yang (Chief Marketing Officer - CMO): Marketing and sales management is based on Chen Yang's position as CMO. Creates agreements with important merchants to ensure maximum use of our loyalty program. In close collaboration with the development team,

Chen Yang will align marketing strategies with cutting-edge products and customer preferences.

Ralf Konrad (Chief Financial Officer - CFO): Ralf Konrad will oversee the financial aspects of the business in her capacity as CFO. He will manage investments, budgets and revenue growth objectives. Ralf's expertise will enable sustainable and financially viable expansion of our business.

Agile methods are adopted to ensure an efficient and repeatable development cycle. There will be regular sprints and meetings to track progress and address challenges. The Project Manager will be responsible for the timely delivery of all programs and projects. Furthermore, quality and testing will be central to the development process to ensure a flawless product. The marketing and sales team will work closely with the development team to ensure strategies align and integrate seamlessly. In addition, customer support will be available to deal with queries, which will ensure a high level of customer satisfaction. Internal communication systems will be used to promote collaboration and increase team productivity.

9 Goals

Market Leadership and Brand Presence:

Our foremost aim is to establish our loyalty program as a prominent industry leader. With our unique AI-powered functions, we aim to redefine loyalty programs.

User engagement, satisfaction and retention:

Central to our vision is a user-centric approach that increases engagement and strengthens customer loyalty. By offering personalized challenges and rewards, we expect to increase customer retention rates by at least 25%, increase customer satisfaction rates for our customers, and drive repeat interactions.

Partnerships and Expansion:

We are looking for partnerships with major retailers and establishing our loyalty programme as a must-have solution for retailers which want to increase customer loyalty. The goal is to maximize our impact and increase adoption by seamlessly integrating our platform into their websites.

Economic growth and sustainability:

Our financial ambitions are consistent with our strategic objectives, and we expect annual revenue growth of at least 30% over the first three years. This will support us to expand, innovate and further improve our system.

10 Chances and risks

10.1 Chances

The integration of AI and blockchain in our loyalty program enhances customer engagement through personalized rewards, offers, and promotions. The chances of customers actively

participating in the program increase significantly as they receive tailored incentives, fostering a deeper connection with the associated businesses.

The adoption of AI and blockchain technologies streamline loyalty program operations, reducing administrative costs and enhancing program efficiency. Organizations can optimize their resource allocation and focus on delivering a superior customer experience.

By using blockchain to ensure data integrity, immutability, and transparency, customers are more likely to trust the loyalty program due to the secure and trustworthy nature of blockchain technology.

10.2 Risks

The implementation of AI and blockchain technologies involves the collection and storage of customer data. The risk of data breaches and unauthorized access to sensitive information may result in compromised customer privacy and damage the program's reputation.

The integration of AI and blockchain is technically complex and may present challenges during implementation. Inadequate expertise or delays in deploying the technologies could impact the program's functionality and user experience.

AI and blockchain technologies are subject to evolving regulations that may vary from country to country. Ensuring compliance with data protection and financial regulations is crucial to mitigate legal risks and potential penalties.

11 Patents and property rights

Our AI algorithms and blockchain token technology are protected by patents so that our processes and procedures cannot be used by third parties without our consent.

Trademarks will be registered to protect our logo and branding. This will ensure that the identity of our loyalty programme stands out and remains easily recognisable among other loyalty programmes. To protect the sensitive information of our users, we enforce non-disclosure agreements with all of our partners.

12 Financing

12.1 Investment plan

The fund is designed to hire skilled AI and blockchain developers, data scientists, and experts in loyalty program design. The research and development team will be responsible for developing and testing the AI algorithms, creating smart contracts on the blockchain, and developing the user interface and experience of the platform.

The fund will aim to invest in robust technology infrastructure to support the loyalty program's operations. This includes servers, cloud computing services, and security measures to ensure data protection and data security. Integrate the chosen blockchain platform into the loyalty program. Depending on the requirements, the investment may include licensing fees, transaction costs, and consulting services from blockchain solution providers.

12.2 Financing plan

According to our estimate, we are expected to maintain a healthy financial position over the next five years. The following plan outlines the financial development of our company. The business will be initially financed by a €30,000 five-year term loan and a total capital investment of €101,500. The source to repay the loan will be the cash flow generated from operations. The company will also finance growth through cash flow. After an initial period of five years, the company will be able to make further expansion. At that time, it is envisioned that a bank loan or equity funding will be sought to finance the new development, in addition to retained earnings. The projected financial statements have been prepared in accordance with the general accounting principles, and necessarily include some amounts that are based on reasonable estimates and judgement. For accounting purposes, the long-term assets are expensed using the straight-line depreciation method, and inventory is accounted for based on the First-In, First-Out method.

12.3 Sales and profitability forecast

Our business is poised for strong growth in the first quarter, driven by four confirmed partnerships with prominent brands. These partnerships entail a base deposit of €15,000 from each brand, along with a monthly subscription fee of €200. Based on this, we anticipate generating €63,200 in total revenue during the first quarter.

Over one year, these four partnerships are projected to yield a gross revenue of €281,600, with consistent monthly subscription fees contributing to steady cash flow.

Projected Revenue Breakdown:

Q1: €63,200/Q2: €75,200/Q3: €87,200/Q4: €56,000

As a result, our business will generate a total of €281,600 during the first year.

12.4 Liquidity Forecast

Projected cash inflow:

As explained earlier the business is expected to generate €281,600 distributed quarterly as

Q1: €63,200/Q2: €75,200/Q3: €87,200/Q4: €56,000.

Projected cash outflow:

Development and design: €30,000 per quarter.

Marketing and communication: €10,000 per quarter.

Extern services: €3,000 per quarter

Trivial expenses: €3,000 per quarter

The total quarterly expenses are €46,000€.

The total cash flow for each quarter is as follows:

Q1: €18,200/Q2: €29,200/Q3: €41,200/Q4: €10,000. Knowing that the first investment of capital is €101,500, the total cash flow at the end of the first year will be €175,100.