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Smarter Loyalty: Leveraging AI in Union Cooperative Society's Loyalty Programs to Enhance Customer Satisfaction and Retention in the UAE

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Abstract

In today's competitive retail environment, loyalty and discount programs are widely used to attract and retain customers while generating valuable consumer data. However, collecting data alone is not enough; it must be intelligently analyzed to deliver personalized services and improve the overall customer experience.

This study explores the role of artificial intelligence (AI) in enhancing the effectiveness of loyalty programs through a case study of Union Cooperative Society, a major food and consumer retail organization in the United Arab Emirates. The cooperative runs a tiered loyalty program, "Tamayaz Membership," with "Gold" and "Silver" categories. These programs generate large volumes of customer data that, when processed using AI techniques, reveal key insights into purchasing behavior and preferences.

Using a qualitative-descriptive approach based on secondary data, the research shows that AI supports both operational and strategic decision-making. It enables more tailored service delivery, better inventory management, and smarter product placement.

The findings confirm that AI-driven analytics contribute significantly to improving customer satisfaction and loyalty while supporting long-term competitiveness in the retail sector.

This study adds to the academic literature by emphasizing the importance of customer-focused strategies powered by data intelligence. Future research could benefit from primary data collection, such as surveys or interviews, to further validate AI's impact on enhancing retail performance and customer engagement.

Keywords

Artificial Intelligence, Customer Satisfactions, Loyalty Programs, Tamayaz Membership, Union Cooperative Society.

INTRODUCTION

With the technological advancements witnessed globally, particularly those introduced by artificial intelligence (AI), whose capabilities have surpassed human capacity and endurance, the use and integration of AI have become essential in nearly every aspect of life due to its unparalleled efficiency. One of the most significant applications of AI lies in business management, customer segmentation, trend analysis, and the personalization of services to meet individual customer preferences.

In this context, many private companies have launched programs to attract and retain customer loyalty with the goal of increasing their customer base. Some have introduced loyalty programs that collect purchase points, while others have implemented discount programs, among other initiatives. Regardless of the type of program applied to serve customers by offering high-quality services, the ultimate objective remains the same: to collect customer data to analyse it accurately, understand their needs, and deliver them with the desired quality and at the right time.

While numerous studies have explored the intersection of customer loyalty programs and artificial intelligence, they all focus mainly on international chain stores or private enterprises. Little attention has been devoted to cooperative business models in the Middle East, the United Arab Emirates in particular. This study fills this gap by exploration of empirical case-specific evidence from Union Cooperative Society's "Tamayaz" program, offering insights into how customer satisfaction and loyalty can be enhanced by AI in a unique special cooperative retail context.

This paper will investigate and discuss the topic with a focus on major hypermarket and retails, such as the Cooperative Societies in the United Arab Emirates, which offer a wide range of products, numbering in the thousands, to a diverse customer base. These cooperatives implement a dual-tier loyalty program: the ***"Silver Card"*** is designated for non-shareholding customers, often non-Emirati residents, while the ***"Golden Card"*** is reserved for shareholders who are UAE nationals. The big data collected from the customers in loyalty and discount programs.

With the widespread adoption of these programs and the accumulation of large volumes of customer data, leveraging AI has become increasingly beneficial due to its superior ability to process big data. This study focuses on the importance of employing AI to improve service quality, fulfil

customer requirements, and deliver exceptional experiences that not only meet but exceed customer expectations.

The integration of artificial intelligence in customer data analysis, as explored in this study, further enhances the ability of businesses to predict, respond to, and even exceed customer needs. AI enables real-time insights into consumer behaviour, allowing organizations to shift from reactive service models to proactive and predictive customer engagement [1].

Research Problem

With competitive pressures in the retail market, loyalty and discount programs have become essential tools for attracting and motivating customers. These programs often offer tiered memberships and personalized benefits, which have significantly contributed to the collection of vast amounts of customer data.

However, organizations must analyse this data effectively to meet customer expectations.

Classical analytical approaches are not usually able to be effective on these complex and vast amounts of data. Without analysing this data, the impact of loyalty programs is limited and data gathering efforts are ineffective.

This study aims to explore the use of artificial intelligence (AI) to enhance the efficiency and effectiveness of loyalty programs in consumer retail stores in the United Arab Emirates.

Research Significance

The research emphasizes the critical role of artificial intelligence (AI) for customer data analysis and illustrates how decision-making processes benefit from AI analysis results. Traditional analytical tools struggle because of their limited functionality while AI excels at handling large-scale data processing and supports instantaneous decision-making capabilities. Businesses gain improved customer insights through capabilities that analyse purchasing patterns to discover best-selling products and optimize operations by increasing suppliers, expanding product offerings, optimizing shelf placement and making strategic decisions.

The findings of this study highlight how accurate data collection and analysis are essential for enhancing customer service. The study findings aim to help retail managers along with technology specialists and policymakers who want to apply AI in both customer interaction practices and business operational procedures.

Research Objectives

The study aims to:

Explore the role of artificial intelligence (AI) in analysing customer data generated from loyalty and discount programs.

Clarify the role of AI in supporting strategic decision-making based on customer analytical results.

Provide recommendations for integrating AI technologies into loyalty programs to enhance service quality.

Assist technology specialists in developing applications that integrate AI into customer engagement models.

Research Questions

The objectives of this study will revolve around answering the following questions:

- Why is the "Customer Focus" principle important for any organization?
- How can artificial intelligence enhance the analysis and utilization of customer data within loyalty and discount programs?
- What is the impact of AI-powered applications on meeting customer needs and identifying their expectations?
- How can the largest retail stores (supermarkets and hypermarkets) in the United Arab Emirates benefit from the integration of artificial intelligence?

Research Limitations

This study is limited to the analysis of secondary data obtained from reports and information provided by Union Cooperative Societies in the UAE, as well as from literature reviews related to the importance of analysing customer requirements to improve service quality.

No field research was conducted in this study, such as collecting data directly from customers through surveys or personal interviews to gather their opinions.

Background and Literature Review

Organizations have found that the customer data gathered through loyalty membership and discount program services can significantly enhance customer acquisition efforts over time. Some organizations even substitute loyalty and discount programs in place of costly comparing with the classical services.

As highlighted in the study by [**2**], titled ***"The Effect of Service Quality, Corporate Image, and Customer Satisfaction on Word-of-Mouth Marketing,"*** customer satisfaction plays a crucial role in shaping marketing outcomes. The study found:

- Satisfied customers are more likely to engage in positive word-of-mouth marketing and promote the brand or service to others.
- In contrast, dissatisfied customers tend to spread negative word-of-mouth, which can severely damage a company's reputation.
- The effect of customer satisfaction on word-of-mouth was found to be statistically significant, indicating a strong correlation between satisfaction levels and the nature of customer feedback.

Peter Drucker, in his book *The Essential Drucker [**3**]*, states that ***"The aim of marketing is to know and understand the customer so well the product or service fits him and sells itself.".*** However, merely collecting customer data is not sufficient, without proper analysis and decision-making, such data holds little value. Given its complexity and volume, customer data must be systematically collected and analysed to understand consumer needs, develop new products, and provide tailored services on a regular basis.

The integration of artificial intelligence has become indispensable in meeting customer needs, increasing customer acquisition, and enhancing service quality. The literature review will support the idea that customer satisfaction is a key determinant of loyalty, brand advocacy, and repeat purchasing behaviour **[**4**]** [5].

According to [6], service quality and responsiveness to customer expectations are directly linked to customer satisfaction. In today's data-driven business environment, companies that can analyse customer behaviour, preferences, and feedback are better positioned to provide personalized and value-driven services. This aligns with [7], SERVQUAL model, which emphasizes the importance of reliability, empathy, and responsiveness in meeting customer expectations. Organizations can build strong, lasting relationships with their customers, fostering loyalty and trust.

Previous research has proven the efficacy of loyalty schemes and the growing application of AI in customer experience customization. However, most of the previous research is either based on survey data or cross-country case studies, and not many utilize cooperative societies in the emerging economies. This research, using the UAE-based Tamayaz programme as its focus, has a special contribution to make in adding region-specific evidence to the literature. Unlike previous studies, our study demonstrates how AI-driven insights can optimize loyalty gain in a cooperative retail setting.

RESEARCH METHODOLOGY AND DATA COLLECTION

The research adopts a **qualitative-descriptive methodology** using secondary statistical data from one of the largest food and consumer retail organizations in the United Arab Emirates—Union Cooperative Societies—which operates a loyalty and discount program under the name "Tamayaz Membership," divided into "Gold" and "Silver" categories. The Gold category is exclusively for UAE nationals who own shares in the cooperative, purchased through the financial market, while the "Silver" category is available to UAE residents of all nationalities, as well as UAE nationals who do not hold cooperative shares.

Additionally, data is gathered from the literature review and academic publications related to the importance of customer data analysis in enhancing customer experience by understanding current needs and anticipating future expectations.

This study relies on secondary data collected from the internal recorded accounts of Union Cooperative Society for the period 2020 to 2024. The dataset includes figures and statistics categorized according to the classifications of the "Tamayaz" discount card. Using these systematically obtained and internally recorded data ensures reliability and strengthens the validity of the analysis.

To strengthen methodological rigor, this study employs a descriptive-analytical approach. This framework facilitates not only the identification and description of observable trends but also the critical examination of underlying patterns, associations, and managerial implications, thereby addressing the limitations associated with purely descriptive analyses.

Furthermore, This study relies on secondary data gathered from the recorded internal accounts of Union Cooperative Society. The data set is for 2020 to 2024 and consists of data in figure and statistical form categorized according to the classifications of the "Tamayaz" discount card. Using these internally recorded, systematically obtained data guarantees dependability and increases the validity of the analysis. By tracking the statistical trends of various program categories, the study provides rich data insights into customers' conduct in the cooperative retailing setting. Nevertheless, future research would do well to incorporate primary data collection tools, such as customer surveys or in-person interviews, in order to further validate empirically.

FINDING AND DISCUSSION

The following pages provide a discussion of the topic considering relevant academic research, as well as statistical data analysis provided by the management of Union Cooperative Society on the "Tamayaz" rewards and loyalty program for gold members category being cooperative shareholders based on their possession of a portion of its shares.

The Importance of the "Customer Focus" Principle for Organizations

The "customer focus" principle is essential for organizations as it enables products, services, and business strategies to be directed towards meeting customer expectations and needs. By prioritizing customer satisfaction, firms build strong relationships, enhance loyalty, and enhance their reputation in the market. This generates repeat business, positive word-of-mouth, and long-term competitive advantage. For instance, companies like Amazon and Apple have achieved global success in large part due to their relentless focus on delivering outstanding customer experiences. It is proven that higher customer satisfaction is directly connected with increased profitability and market share [8].

Other than that, customer Focus is one of the seven fundamental principles of quality management outlined under the ISO 9001:2015 standard. Generally, the principal centres on knowing and meeting customer requirements and aiming to exceed their expectations. Organizations adopting the customer Focus methodology do not just wish to fulfil stated needs but are also eager to anticipate anticipated needs via active engagement and constant improvement. This encompasses connecting organizational goals and processes to customer satisfaction metrics, using feedback to enhance product and service quality, and developing a culture where every employee is committed to delivering value to the customer. As the International Organization for Standardization (ISO) mandates, a customer focus is held

directly responsible for long-term achievement through the creation of trust, loyalty, and sustainable performance [9].

Moreover, a customer-focused approach drives innovation and continuous improvement. By listening actively to the voice of customers, companies discover gaps, resolve issues quickly, and develop products or services that better serve the needs of their markets. This responsiveness confirms customer trust as well as positions the business as flexible and innovative. For example, Zappos' customer-centric service model has caused it to shine in the highly competitive retail industry. As [8] emphasize, infusing customer focus across the firm generates a culture that reinforces quality, accountability, and long-term success.

The Impact of AI-Based Apps on Fulfilling Customer Needs and Setting Expectations

The implementation of AI-based applications into business functions significantly enhances the ability of an organization to meet customer needs and identify their evolving expectations. These technologies enable real-time data analysis, predictive analytics, and personalization, allowing companies to provide more responsive and relevant customer experiences. By leveraging machine learning algorithms and natural language processing, organizations can extract actionable intelligence from customer attitudes, behaviour, and feedback across various digital channels [10]. Such intelligence drives customer value delivery through forecasting demands, service delivery automation, and offering customization—ultimately increasing customer satisfaction and loyalty.

Through these AI-driven capabilities, organizations are likely to achieve measurable business gains such as repeat business, enhanced brand reputation, and expanded customer base. When customers perceive that a company is in tune and responds to their requirements well, trust is enhanced, thereby leading to long-term relationships and competitive advantage [11]. In addition, Artificial intelligence (AI) seeks to redefine consumers' experiences and how organizations find, create, nurture and cope with effective marketing relationships. However, organizations do not have a profound understanding of the concept of AI and what it can benefit both consumers and firms. As a result, strategic use of AI not only facilitates customer-driven innovation but also has a positive effect on long-term organizational success in increasingly complex markets.

Enhancing Customer Data Analysis in Loyalty Programs through Artificial Intelligence

Artificial Intelligence (AI) has greatly impacted the analysis and utilization of customer data in loyalty programs. By processing large volumes of transactional and behavioural data, AI enables businesses to identify patterns, predict future customer behaviour, and modify marketing campaigns in response. Although traditional data analysis software provides primarily past information, AI facilitates real-time analytics, supporting dynamic customer segmentation and sending targeted offers based on individual interest [12].

Application of AI in loyalty programs makes some tangible benefits like improved customer engagement, improved retention rates, and improved decision-making in program design and implementation. For instance, predictive analytics using AI can forecast customers' needs and enable anticipatory engagement programs that forge lasting relationships and overall improved program performance [13]. Besides, customer segmentation and profiling through AI have also been discovered to increase the precision of sales forecasts and optimize marketing to enhance loyalty schemes [14].

The Benefits of Integrating Artificial Intelligence in Major Retail Stores (Union Cooperative Society) in the United Arab Emirates- Data Analysis

Private businesses and stores rival one another in offering various types of promotions to persuade customers to buy, with the aim of making more sales, achieving target profits, and ensuring the customer remains a loyal client. These efforts are primarily aimed at maintaining existing customers and acquiring new ones by associating with them and enhancing their shopping experience. Here, most hypermarkets and supermarkets have launched reward and discount programs for members, wherein they offer them direct discounts or loyalty points for shopping. Consumers can accrue such points and redeem them against purchases made either from the same outlet or any affiliated branch.

They are typically founded upon electronic platforms to deliver personalized rewards, such as real-time discounts, point redemption, and exclusive offers for program members. For example, Union Coop's **"Tamayaz"** program in the United Arab Emirates comprises gold and silver membership cards. Gold membership is reserved for shareholders who are UAE nationals, while silver membership is given to UAE residents of any nationality and Emiratis who are not shareholders of Union Coop.

Their effectiveness is also enhanced using artificial intelligence (AI) and big data analytics to enable Union Coop and other retailers to customize their promotional and rewards programs to better meet customer needs. For instance, the "**Tamayaz"** program uses a mobile app to send promotional offers with the aim of enticing customers to purchase and thereby increase sales while offering greater value to customers. In addition, Union Coop has an app whereby members can track promotion offers, viewpoints gained through shopping, shop online, submit suggestions, and avail of other services that save time and enhance the customer experience.

Fig.1 Statistics of Union Cooperative Scociety[1] indicate that the number of members in the gold category has grown

[1] All statistical data related to the loyalty program for gold category members (Tamayez) have been collected from the statistical records of the Union Cooperative Society.

significantly by 17.24% between 2020 and 2024. The number of shareholders who were UAE nationals and belonged to the gold membership category was approximately 29,000 in the year 2020. This figure increased gradually each year, reaching about 34,000 members by 2024, which represents a total growth of approximately 17.24% over the four-year period. For those earning loyalty points on purchases, the statistics from the cooperative show figures running into millions as follows:

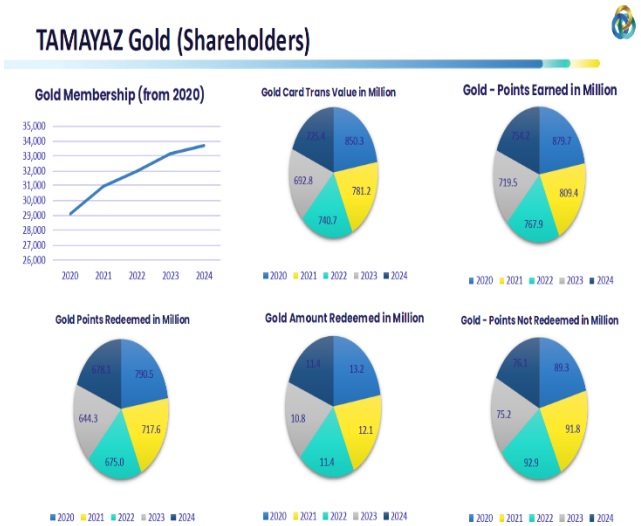

Figure 1. Statistics of Union Cooperative Report 2025

This indicates that the number of points earned from purchases in 2020 reached 879.7 million and began to decline gradually. In 2021, it was 809.4 million; in 2022, 767.9 million; in 2023, it reduced further to 719.5 million; and in 2024, it increased slightly to 754.2 million. Even though the increase in 2024 was greater than that of 2023, the overall difference between 2020 and 2024 shows a decline of 125.5 million points. It is a request for determining why the decline happened and the required decision-making for the sake of customer retention. The decline in points gained via purchases indicates that, even as the number of gold-tier members rose, their purchasing volume fell, as evident in their loyalty points gained.

In terms of the number of members who used their points for purchases, the figures indicate that in 2020, the number redeemed via gold-tier members at cooperative societies stood at 790.5 million. It dropped to 717.6 million in 2021; in 2022, it was 675.0 million; in 2023, it dropped again to 644.3 million; and in 2024, it rose marginally to 678.1 million. The overall downward trend suggests that gold-level members have increasingly been shopping at other stores that offer better rewards than what the **"Tamayaz"** membership program is offering. AI tools monitor customers' activity to categorize them into segments and reward them with personalized offers, which boost their engagement and loyalty. Artificial intelligence technologies are now unavoidable in processing and analysing big data while making decisions that assist in optimizing the services offered to customers.

The Silver Category

The findings not only indicate the success of AI in enhancing loyalty and retention but also the special status of cooperative societies in the UAE. Unlike international retail chains, Union Cooperative Society is a community-based model, which poses challenges, along with uniqueness, to the adoption of AI tools. This uniqueness contributes to the novelty of the research in that it provides evidence from a context rarely examined in the literature.

CONCLUSION

This study makes an original contribution since it is one of the earliest empirical research papers to study AI application in loyalty schemes considering a cooperative retail model in the UAE. The case of the Tamayaz program illustrates how insights derived from data may be tailored to provide greater customer satisfaction and retention in developing economies, thereby offering both scholarly as well as practical implications.

It's confirming that although loyalty and discount programs are typically utilized throughout the retail sector, their worth is not just in encouraging individuals to shop, but also in strategic leverage of the data collected through these programs. Nevertheless, the mere accumulation of big data alone is inadequate. The meaningful utilization of such data demands consistent and systematic research, a task which tends to overwhelm the strength of conventional analysis equipment. Thus, the incorporation of artificial intelligence (AI) has become inevitable in carrying out a range of activities, including:

- Accurately and effectively categorizing customers based on age, nationality, gender, residence, VIP, shopping habits, purchase behaviour, etc.
- Customer makes purchases based on these categories.
- Making stock decisions such as increasing or decreasing product levels utilizing statistical analysis.
- Product position in stores optimized through AI reports. For instance, best sellers can be situated at the back of the shop to get clients walk through other products.
- Utilizing predictive analytics to determine customer preferences according to their purchasing history.
- Identification of early indicators of customer attrition (e.g., fewer visits or spending).
- Customer feedback and survey responses reviewed to measure satisfaction levels and identify areas for improvement.

A very good example is Union Cooperative Societies' **"Tamayaz"** loyalty program in the United Arab Emirates, which has generated ginormous quantities of customer data that are difficult to analyse using traditional analytical tools. This compelled the organization to make artificial intelligence (AI) a requirement for its processing and analysis of such complex data.

With AI usage, companies can break free from conventional data analysis trends by providing extensive

information regarding customer preferences and purchasing trends and emerging trends. With this, businesses can make product assortment and deletion or replacement of some items as data-driven decisions through extensive buying trends analysis per item. Decisions through AI also assist inventory management, on-shelf availability of products, and picking places for the product to be displayed within the store.

For example, if in the findings, it turns out that the top-selling item is fish, the store expectations management should increase supplies and place the item further away from the checkout areas. The goal of such a strategy is to force the customer to walk past as many items as possible before reaching the item they originally intended to purchase.

Thus, the study validates the statement that artificial intelligence is not only a facilitating technological tool, but a key element for retail organizations to maintain their competitive edge in a data-driven economy. With services aligned against customer and use of predictive analytics, organizations can deliver outstanding experience beyond customer expectations.

However, this study fulfills its objectives by directly depicting how AI is able to successfully mine customer information from loyalty and discount programs in order to enable strategic decision-making and actionable suggestions for improving service quality. Additionally, the findings emphasize the fact that actionable applications of AI-driven analytics enable companies to optimize customer segmentation, stock, and product placement, in line with organizational priorities.

Further, this research provides avenues for future studies to apply primary data collection methods, such as customer interviews and questionnaires, to verify and confirm these findings, thereby further solidifying the applied value of AI in administering loyalty programs.

RECOMMENDATION

- Retail institutions need to embrace and integrate AI systems that can adequately scan and assess client information to the level needed to aid in decision-making aimed at improving service delivery.
- Necessary skills to employ AI in data-driven outcomes ought to be taught to managers, personnel, and marketing departments.
- To defend decision-making efficiency, retail stores need to check that loyalty cardholders are the actual purchasers to ensure that there is no data fusion or misclassification by national or age group.
- A loyalty program should offer additional functionalities to improve data collection by allowing confirmation of loyalty cardholder's identity during the transaction.
- AI should proactively recommend tailored offerings through analytical insights provided to less frequent customers to enhance engagement.
- Customer data should be processed and managed in a reasonable, transparent, and ethical manner to uphold the customer's trust while meeting the compliance requirements on privacy laws.
- The research has substantiated the need to gather more empirical data through customer feedback, interviews, or quantitative surveys to assess the impact of AI on personalization relative to customer satisfaction and loyalty.

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