Technoeconomics. 2025, Vol. 4, No. 1 (12). Pp. 33–42.
Техноэкономика. 2025, Том 4, № 1 (12). С. 33–42.

Scientific article
UDC 330.47
DOI: https://doi.org/10.57809/2025.4.1.12.4

OPTIMIZATION PROJECT FOR THE MANAGEMENT SYSTEM OF A LOYALTY PROGRAM BASED ON THE PROCESS APPROACH

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Abstract. This study is devoted to the development of the project optimization of the club loyalty program at a small hotel on the basis of the "Loyalty program discount accrual" business process. Throughout the research the authors examine a typical model of this business process and describe the main theoretical and methodological aspects of the formation and improvement of the loyalty program. As a result, the authors articulate the main elements and features of the automated loyalty program management system and develop the model of the "Optimization of the club loyalty program" business process.

Keywords: process management, service sector, relationship marketing, loyalty program, hospitality industry

Citation: Shishkina A., Khalimova P., Li A. Optimization project for the management system of a loyalty program based on the process approach. Technoeconomics. 2025. 4. 1 (12). 33–42. DOI: https://doi.org/10.57809/2025.4.1.12.4

Научная статья
УДК 330.47
DOI: https://doi.org/10.57809/2025.4.1.12.4

ПРОЕКТ ОПТИМИЗАЦИИ СИСТЕМЫ УПРАВЛЕНИЯ ПРОГРАММОЙ ЛОЯЛЬНОСТИ НА ОСНОВЕ ПРИМЕНЕНИЯ ПРОЦЕССНОГО ПОДХОДА

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Аннотация. Данное исследование посвящено разработке концепции проекта оптимизации клубной программы лояльности малого отеля на основе анализа бизнес-процесса «Начисление скидки по программе лояльности». В ходе исследования авторами представлена типовая модель анализируемого бизнес-процесса, описаны основные теоретико-методические аспекты формирования и совершенствования программы лояльности. Результатом работы является разработка основных элементов и характеристик автоматизированной системы управления программой лояльности и модель бизнес-процесса «Оптимизация клубной программы лояльности».

Ключевые слова: процессное управление, сфера услуг, маркетинг взаимоотношений, программа лояльности, индустрия гостеприимства

Для цитирования: Шишкина А., Халимова П., Ли А. Проект оптимизации системы управления программой лояльности на основе применения процессного подхода // Техноэкономика. 2025. Т. 4, № 1 (12). С. 33–42. DOI: https://doi.org/10.57809/2025.4.1.12.4

Introduction

The loyalty program of a service enterprise is a set of marketing activities aimed at establishing long-term relationships (Trofimova, 2015; Chuvatkin, 2023; Corbishley, 2020) with customers (guests), expressed in an increase in the number of repeated purchases and bookings, as well as the optimization of marketing costs, which contributes to increasing the level of economic sustainability (Vlasova, 2012) and profits. Building, maintaining, and developing such a system is a complex multi-level process within the marketing strategy of an enterprise. The presence of an effectively functioning guest loyalty program becomes one of the main arguments in the competitive struggle in the service market (Trofimova, 2015). In the conditions of active digitalization, the application of innovative technologies (Voronova, 2019) and the development of a comfortable consumer environment, as well as the formation of competitive advantages on the basis of the loyalty program application becomes insufficient and requires improvement. Without advances in this direction it would be impossible to ensure the development of personnel competencies of innovative design of service management technologies (Ilyina, 2016; Steinhoff, 2016).

Materials and Methods

The research is based on the system and process approach to enterprise management. The authors employ materials and data devoted to loyalty management by a number of domestic

authors (Savenkova, 2015; Kozlova, 2016; Grigoryeva, 2023), studies on service activity development and service management by O.V. Ilyina, as well as research in the field of digitalization of the hotel industry by O.V. Voronova and V.A. Khareva. The methods of literature analysis and functional modelling of business processes were also applied in this paper.

Results and Discussion

According to Babenko P., General Director of CJSC Hotel Technologies and developer of the management system for hotel business "1C:Hotel," participants of loyalty programs bring 45% more stays and 50% more revenue compared to other guests. At the same time, within one of the most famous loyalty programs, Marriott Rewards program participants account for about 20% of the company's income; their average expenses are 2.5 times higher than those of an ordinary client. At the same time, due to the activation of the transfer of guests to direct sales within the framework of participation in the loyalty program, there is also a saving on commissions, which also affects the growth of profits. In this connection, the following regularity was put forward: "The growth of direct sales by 1% leads to the growth of annual profit per room for the amount from 2 thousand rubles."

Traditionally, the following generalized types of loyalty programs are distinguished: bonus programs, discount programs, programs for offering additional services, and premium service. In practice, independent small accommodation facilities use non-automated closed (club) discount loyalty programs for returning guests (Basrowi, 2022; Dominguez Perez, 2020).

The principle of operation of such programs is quite complicated, as each time it is necessary to agree on the amount of discount with the hotel director. At the same time, such programs can divide guests by categories. Thus, the most important categories of guests (VIP) in addition to accommodation at the price of the closed tariff are given compliments and gifts upon arrival. The gift itself and the budget for it are agreed upon first of all with the hotel director, and then the purchasing manager works with this information. As a compliment, there is a welcome letter, which will be placed in the room, and it can be a small set with tea or sweets. For regular guests, there is a specific system of discounts from 5 to 20%. The operation of the program itself is quite complex, as the employees need to constantly agree on the amount of the discount; this takes a lot of time, as the director cannot always be in touch (Bade, 2024). In order to visually assess the functioning of the loyalty program in the hotel, let us present the first-level decomposition diagram in Figure 1.

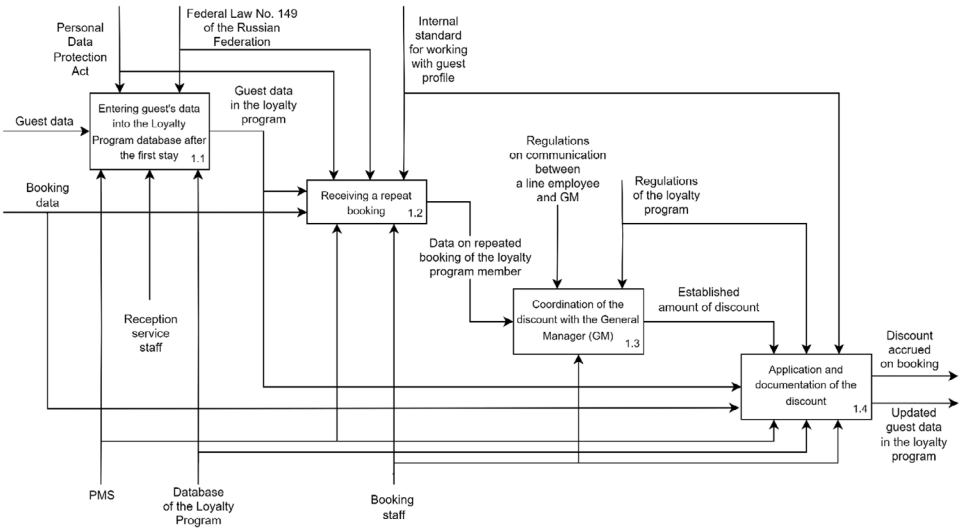


Fig. 1. Level-1 decomposition diagram of the "Accretion of discount on the club Loyalty Program" business process (designed by the authors).

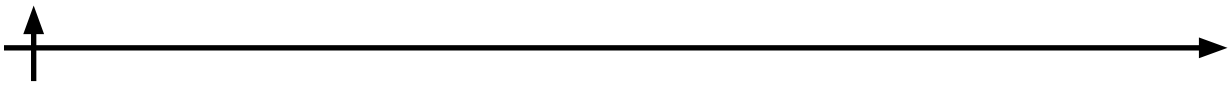
The business process of charging a discount under such a club loyalty program, is very complex and time-consuming. Before giving a discount to a guest, an employee has to prepare a request with the necessary information for the director, coordinate the decision, record the decision on paper and electronic media, recalculate the price in the booking window, issue a new invoice, coordinate the invoice with the guest, make payments, update the guest's profile and make a comment in the system why the price in the booking window is different from the open rate in the sales channel so that no mistake is made at check-out (Kimura, 2022). This process takes a large amount of time, on average, the guest waits about 30 minutes for a discount decision, not including the time to generate the bill and send a new booking confirmation.

In order to see how the system is functioning in visual figures, it is necessary to develop a system of KPIs of process execution (Table 1). The development of the KPI system is necessary to see clearly who is responsible for the process execution, what system for measurement should be used, what result is considered as a norm, what is considered as a planned result and what result will be considered as a norm when deviating from the actual value.

Table 1. KPI system of the business process "Accretion of discount on the club loyalty program" (designed by the authors)

Business process operation	KPI title	Executor	Value	
			Real	Planned
Approval of discount with the director	Average time to negotiate a discount	Shift Supervisor	30-35 minutes	3-5 minutes
Guest identification in the system	Average time for an employee to search for a guest's profile in the system	Shift Supervisor	5 minutes	2 minutes
Entering a return guest in the system	Number of data entry errors	Guest Relations Manager	1-3 errors	0 error
Discount application	Average negotiated discount	Hotel Manager	10%	15%
Recalculation of the new booking price	Time to change the cost and draw up a new invoice	Shift Supervisor	7 minutes	2 minutes
Preparation of a package of documents to the sales manager, guest relations manager	Number of packages sent to managers	Shift Supervisor	10 packages	20 packages
Informing the guest about the new account	Time taken to inform the guest of the new discounted price after receiving a booking request	Shift Supervisor	5-7 minutes	2-3 minutes

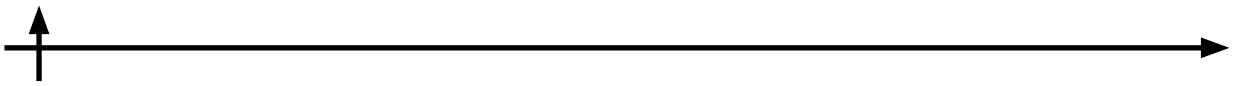
Table 1 shows that there are various metrics when dealing with the analyzed hotel company loyalty program. One of the main KPI metrics is the average time spent on a particular process. The table of values shows that the actual time is very different from the planned time because employees spend too much time making reservations, talking to the director about the discount, fixing the discount, recalculating the guest's room rate and creating a new invoice, reconciling the new room rate with the guest, and generating reporting documents for the sales and guest relations managers. In addition to the average time spent on an individual process, there are quantitative metrics, such as the number of errors in entering up-to-date information into a regular guest's profile (Haverila, 2022).



The best-case scenario is to enter data without errors so that the system runs without interruption, but in fact employees may make one to three errors, which may result in a smaller discount when negotiated with the director. Also, there is such an indicator as the size of the average agreed discount, because of the fact that the hotel does not have any accounting of the list of returning guests and information is searched and collected only by guest profiles in the ACS, employees can make mistakes and the agreed discount from the director may be less. In order to draw conclusions on the analysis of loyalty program technologies, it is necessary to refer to the data presented in Table 2.

Table 2. Conclusions on the existing problems of technologies of the hotel enterprise loyalty program organization (designed by the authors)

Business process	Identified problems in the technology of business process execution	Identified problems in business process KPIs
Guest identification in the ACS	1. no systematized and up-to-date list of guests from profiles; 2. long time interval for identification	1. the average planned time spent on identification of a guest in the system deviates from the actual time by three minutes, which increases the time of work with PL
Approval of discount with the director	1. heavy workload on the director and increase of his additional tasks; 2. long time taken to decide on a discount; 3. possible errors when forming a request with information to agree on a discount	1. measuring the average time to negotiate a discount is almost 10 times out of the norm; 2. the average discount measurement percentage is subject to errors, may vary from the director's opinion, there is no established accrual system
Entering a return guest in the system	1. there may be errors because administrators do not reconcile information with a separate file of returning guests; 2. not all return guests are color-coded in the checkerboard so that staff can quickly identify them and be attentive to them	1. the average time to make a reservation is not measured; 2. the level of automation of the process is not measured
Informing the guest about the new account	1. too much time spent on making a new bill and adjusting the old one, as well as communicating with the guest, as they may get confused by the numbers and pay the old bill; 2. a guest may change his/her mind about booking a room if he/she needs to pay for the room at a moment's notice	1. the number of errors made in making a new count is not measured; 2. the number of guests who were not sent a new invoice for payment is not measured
Preparation of a package of documents to the sales manager, guest relations manager	1. no automation of the process so that reports could come to managers automatically through the system and are captured with the ability to self-update	1. the number of packages is measured, which shows the efficiency of the administrator's work and the awareness of guests, as well as the number of returning guests, but does not take into account the average time to prepare and forward a complete information package to managers; 2. there is no indicator showing the correctness of forming the package of documents and the number of errors in filling out the information
Discount application	1. there is no systematized system of applying discount, different guests can be given different discount; 2. the system of discount application is not built, VIP-code systems in the ACS are not set up, there is no color solution for returning guests	1. the level of automation and average time taken to apply the discount in general is not measured



Overall, it is possible to conclude that the main problem of the existing loyalty program is its lack of systematization and the absence of the ability to independently calculate the discount in the system. What is more, it can be seen that when filling out the questionnaire of the returning guest in the window of editing the reservation, administrators can make mistakes, because of which the guest can incorrectly calculate the discount. Different guests may be charged different discounts, provided that the number of stays and the amount of profit brought by them are the same. This happens because there is no established uniform system for calculating discounts.

Let's turn to the theoretical and methodological bases of the formation and improvement of loyalty programs. Each of the programs is formed in the course of the implementation of a certain algorithm. For example, the proposals presented in the works (Trofimiva, 2015) and (Tsunevskaya, 2008) focus most of their attention on the ways of assessing the level of customer loyalty, while the work (Kozlova, 2016) proposes the formation of a loyalty program on the complexity of the process of formation of technologies and mechanisms of the program. In turn, in business literature, as a rule, the loyalty program is described in terms of the application of IT solutions and ways to encourage customers, which is facilitated by the active implementation of digital solutions (Voronova, 2019; 2024).

Thus, within the framework of loyalty program optimization projects, each of the enterprises studies the experience of its industry in this area and determines which technologies of each model are presented on the market and are in demand and effective. As a rule, there is a question of choice between them, as each of them offers consumers its own advantages. The task of the enterprise from the point of view is to justify the introduction of one or another model.

According to the research results of F. Reichheld from Bain & Company, customer retention by 5% (i.e., an increase of CRR by 5%) carries a profit increase from 25 to 95%. At the same time, the probability of sale—i.e., frequency of sales—to an existing customer is from 60 to 70% and to a new customer—from 5 to 20%, while loyal customers spend 33% more than new customers (Tsunevskaya, 2008).

To determine the key directions of loyalty program implementation, it is necessary to properly assess the key customer segment to which it will be directed. For this purpose, traditional quality management methods can be used (Pal Bariha, 2021).

According to the Pareto rule, 20% of loyal customers give the company 80% of profit. Moreover, 20% of customers are loyal customers and business partner customers. The Pareto rule is concretized if all customers are then categorized into "ABC" importance categories ("ABC analysis"). Using the letters "A," "B," and "C," customers are categorized according to their importance, in terms of profitability for the company, into three classes: most important, important, and less important. ABC analysis is based on the following patterns (Arakelova, 2013):

— The most important customers (category "A") make up approximately 15% of the total number of customers. Their share in the total profit of the company is 65 %;

— Important customers (category "B") are on average 20 % of the total number, and their share in the total profit of the company is also 20 %;

— Less important clients (category "C") make up 65 % of the total number of clients, and their share in the total profit of the company is about 15 %.

Thus, to form a loyalty program, it is necessary to determine which clients (guests) make up 15-20% of the client (guest) base and bring 65-80% of the profit, to study their typology, nature, and structure of expenses (from the point of view of the company—the revenue brought) and, on the basis of the obtained data, to conduct further analysis and make decisions on the choice of technologies and tools of the program itself. An example of the development of a discount loyalty program based on such analysis is presented in Table 2.

Table 3. Discount size and colour code of the guest status depending on money turnover, number of stays, and stay-in days (designed by the authors)

Guest's cash turnover in the last two years	Number of visits in the last two years	Number of stay-in days in the last two years	Discount size	Color code
from 50 to 70 th. rub.	At least 3 times	At least 10 days in total	7 %	Blue
from 70 to 90 th. rub.	At least 3 times	At least 15 days in total	10 %	Purple
from 90 to 120 th. rub..	At least 3 times	At least 20 days in total	15 %	Red

The following system is proposed during the development of the loyalty program optimization project. On the basis of this list, it is possible to determine which guests came to the hotel for more than 3 times in the last two years, what amount of money turnover they brought, and for how many days they stayed. Next, it is necessary to make a new list with returning guests who are entitled to a discount. The maximum amount of discount that the hotel can give the guest is 15%. It gets those customers who, in the aggregate, for the last 2 years, came to the hotel at least 8 times, given that the total number of days spent in the hotel was not less than 20, and the total turnover of funds that they brought is from 90 thousand rubles. At the same time, guests with a minimum discount will burn blue colour when making a repeat booking, guests with an average discount—purple, and guests with a maximum discount—red. Depending on the change in the number of stays, the system will automatically recalculate the brought amount, cash turnover, and the number of stays, as well as automatically enter the size of possible discounts and set up algorithms to automatically switch the size of the discount with the increase in the number of reservations from the returning guest.

For the process of optimizing the club loyalty program in the hotel, it is necessary to first upload profiles of all guests who have stayed in the hotel since its foundation. Then, with the help of various tools and independent segmentation on the basis of available calculation formulas and the established possible range of discounts, it is necessary to upgrade the functioning of the system so that in the end it gets an automated program with an accessible understanding of use for both guests and staff. Let's present in figure 2 the model of the business process of loyalty program optimization.

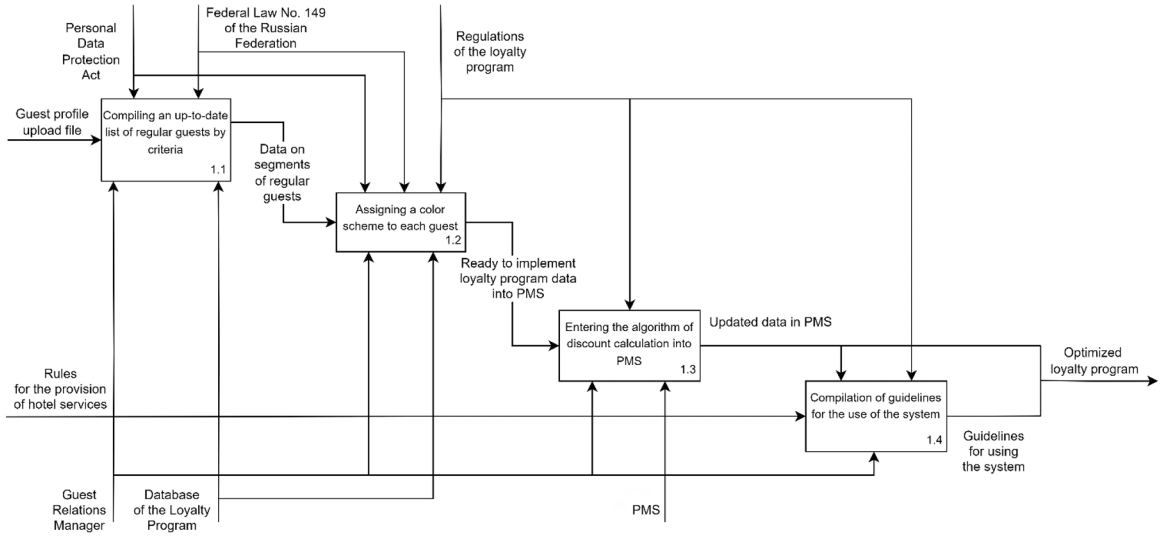


Fig. 2. Model of the "Optimization of club loyalty program" business process (designed by the authors).

Conclusion

From the diagrams above, it is possible to observe how the process of optimizing a club loyalty program in a small hotel will be structured. According to this project, the output should be an automated system that does not require constant coordination of the discount with the director. Based on the criteria of discount calculation and its size depending on the cash turnover, number of visits, and stay-in days, an algorithm is developed, checked by the ACS technician. Then the discount algorithm is manually entered for each guest. At the next visit, the discount will be automatically displayed in the guest's profile, and the amount and the bill for accommodation will be displayed with the already calculated discount. Another plus of such a system is that when the number of bookings from a regular guest increases, his discount will automatically increase within the parameters independently, thanks to the system's capabilities and algorithm customization. The difficulty of implementing such a program is the independent introduction of colour solutions for guests, as the employee must do it manually, based on a complete list of returning guests, as well as a file where the parameters of the guest, the size of the discount, and colour solutions are specified.

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Статья поступила в редакцию 10.03.2025; одобрена после рецензирования 13.03.2025; принята к публикации 14.03.2025.

The article was submitted 10.03.2025; approved after reviewing 13.03.2025; accepted for publication 14.03.2025.