

# 10 The Portrait of Family (with Children) Customers as the Most Loyal Buyers of Travel Agency Services

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## Introduction

The market success of enterprises depends on the resources of knowledge about customers, which is collected and used to understand better their needs and fully meet them. The data about customers, the transactions they make, and the behaviors revealed during interactions with the company constitute the respective source of knowledge. The possibilities for expanding knowledge should be sought in artificial intelligence methods, which can be used to extract data (data mining) and construct forecasts.

The issue of shaping buyer loyalty is important from the perspective of co-creating the enterprise's basic economic categories. Customer loyalty affects the financial results of enterprises by increasing turnover and reducing costs (Reichheld & Sasser, 1990), ultimately contributing to the increase in their profits. From the viewpoint of activities aimed at building and strengthening the loyalty presented by the customers of tourist enterprises, it is crucial to identify the factors influencing the loyalty behavior demonstrated by customers of tourist enterprises. This chapter aims to detect those factors influencing the behavioral loyalty of travel agency customers based on the example of accurate data provided by travel agency networks.

## Literature Review

The research addressing loyalty to a company or brand was carried out as early as 1923 by Copeland (1923), who described the phenomenon known as "brand sticking", associated with the consumer's refusal to replace one brand with another. Currently, the most attempts to define loyalty place it in one of two categories – behavior and buyers' attitudes. Buyer loyalty is defined as behavioral, an attitude towards the brand, and as global, combining the two previous approaches (Day, 1969; Oliver, 1999). From a behavioral perspective, loyalty is understood as customer behavior that faithfully repeats purchases of tourist packages of the same brand (tour operator in this case). It will be measured by the volume, value, and frequency/repeatability of a given brand's actual or intended (willingness to purchase) purchases. Affective loyalty at the level of attitudes and preferences of customers

of tourist packages explains the reasons and motives for repeat brand purchases (Dick & Bašu, 1994). The research covering this issue is related to understanding the attitude presented by buyers of tourist packages, taking into account their subjective emotions regarding the tour operator's brand, their conscious attachment to the brand and commitment to the relationship, trust in the supplier, the tendency to continue cooperation with the brand and recommend it to others (Maghembe & Magasi, 2024). The third approach to interpreting the concept of loyalty combines the first two approaches, allowing for an in-depth analysis of the phenomenon. In this understanding, loyalty is treated as a result of attitudes and behaviors. Buyers' loyalty towards tourism enterprises depends on many factors contributing to tourist behavior and the endogenous and exogenous determinants of buyer loyalty. On the one hand, it is influenced by the characteristics of the buyer himself, and on the other by the characteristics of the tourism industry and specific market conditions in which entities operating in the tourism market function.

Consumer loyalty is an effective indicator for predicting the repeat visit of a customer. The analysis of model approaches to shaping customer loyalty presented in the source literature and the review of conducted empirical research allowed concluding that consumer loyalty towards the area of tourist reception is a frequently emerging subject of scientific research. However, the research on customer loyalty of entities involved in the organization and intermediation of the tourism market is the least frequently analyzed issue, thus confirming the need to research and attempt to explain the factors underlying loyalty of travel agency customers.

While consumer loyalty towards the tourist reception area and broadly understood accommodation services is a frequently occurring goal of scientific research, research on customer loyalty of travel agencies is a relatively rarely analyzed issue (Zhu et al., 2022; Wu & Riantama, 2022). Moreover, consumer loyalty is an important issue in tourism management. It is a tool for measuring brand success (Maghembe & Magasi, 2024) or occurs in conditions of competitive market threat (Nyadzayo et al., 2018). Tourism marketers face the challenge of increasingly limited financial resources and intensifying competition worldwide due to the observed technological, demographic, economic, and social trends (Mariani & Giorgio, 2017). As a result, shaping and strengthening buyer loyalty has become an important tool in developing effective marketing strategies and building the competitiveness of travel agencies (Liu et al., 2020).

## **Methodology**

The analysis of actual historical data, considering the characteristics, activity, and purchasing history of travel agency customers, allowed an in-depth segmentation creating the characteristics of a loyal customer. It is worth emphasizing that the portrait of a loyal customer of travel agencies was developed based on the actual behavior of buyers on the market and not just survey research concerning only consumers' declarations regarding the purchase decision-making process.

The study was carried out by analyzing accurate historical data provided by a network of travel agencies, including over 15,000 travel bookings from 2018. The

data came from a franchise network of travel agencies that has been operating in the market for nearly 20 years, consolidating over 60 agency offices throughout Poland and selling tourist packages for many tour operators.

While investigating the answers to the research questions, machine learning based on supervised artificial neural networks was used, the objective of which is the practical application of artificial intelligence to detect unknown patterns in the data and to formulate rules, which can be successfully used in consumer research to detect relationships and predict future consumer behavior. In order to analyze the relationships in detail, a model based on a Multilayer Perceptron method (Pao, 1989) was used. The data described by the following input layer variables were analyzed:

1. Reservations, that is,
  - price – a variable measured on a ratio scale ( $x_1$ ),
  - method of purchase – a variable measured on a nominal scale ( $x_2$ ),
  - a form of payment – a variable measured on a nominal scale ( $x_3$ ),
  - number of offers purchased – number of people included in the reservation – a variable measured on an ordinal scale ( $x_4$ ),
  - presence of children under 14 years of age in the reservation – a variable measured on a binary scale ( $x_5$ ),
  - time between the booking date and the start date of the holiday – a variable measured on an ordinal scale ( $x_6$ ).
2. Package holidays, that is,
  - the organizer – a variable measured on a nominal scale ( $x_7$ ),
  - place of purchase – agent – variable measured on a nominal scale ( $x_8$ ),
  - duration of the holidays – a variable measured on an interval scale ( $x_9$ ),
  - tourist destination – ( $x_{10\_1}$  to  $x_{10\_n}$ ).
3. Customer characteristics, including
  - client's place of residence – a variable measured on a nominal scale ( $x_{11}$ ),
  - client's age – a variable measured on an interval scale ( $x_{12}$ ),
  - client's gender – dummy variable ( $x_{13}$ ).

The output layer variable was the behavioral variable of buyer loyalty ( $y_i$ ). On the basis of the presented cases concerning reservations of tourist packages made by clients, the proposed network discovers and remembers the general regularities that govern the phenomenon of behavioral loyalty shown by buyers (output layer variable  $y_1$ ). The output layer variable was the behavioral variable of buyer loyalty ( $y_i$ ). For archived data, the variable will have the following values: 0 – if the customer did not make a repeat purchase, and 1 – if he did.

## Results

To carry out the calculations in the study, the *neuralnet* (Günther & Fritsch, 2010) and *DALEX* (Biecek, 2018) packages of the R environment were used, using the softmax activation function and the back propagation learning algorithm.

The artificial neural network was built with as many input neurons as measured variables, trained with three hidden layers, and one neuron at the final layer corresponding to  $y_i$ . Empirical verification of the theoretical model based on artificial neural networks allowed for the identification of factors determining the behavioral loyalty of buyers of tourist services of the examined entity.

The analysis of the final weights assigned by the neural network to the individual variables of the input layer (Figure 10.1) allows formulating conclusions regarding the factors determining behavioral loyalty of tourist services buyers in the analyzed network of travel agencies.

The structure of the final artificial neural network is presented in Figure 10.2, including those key factors in the input layer. The following variables turned out

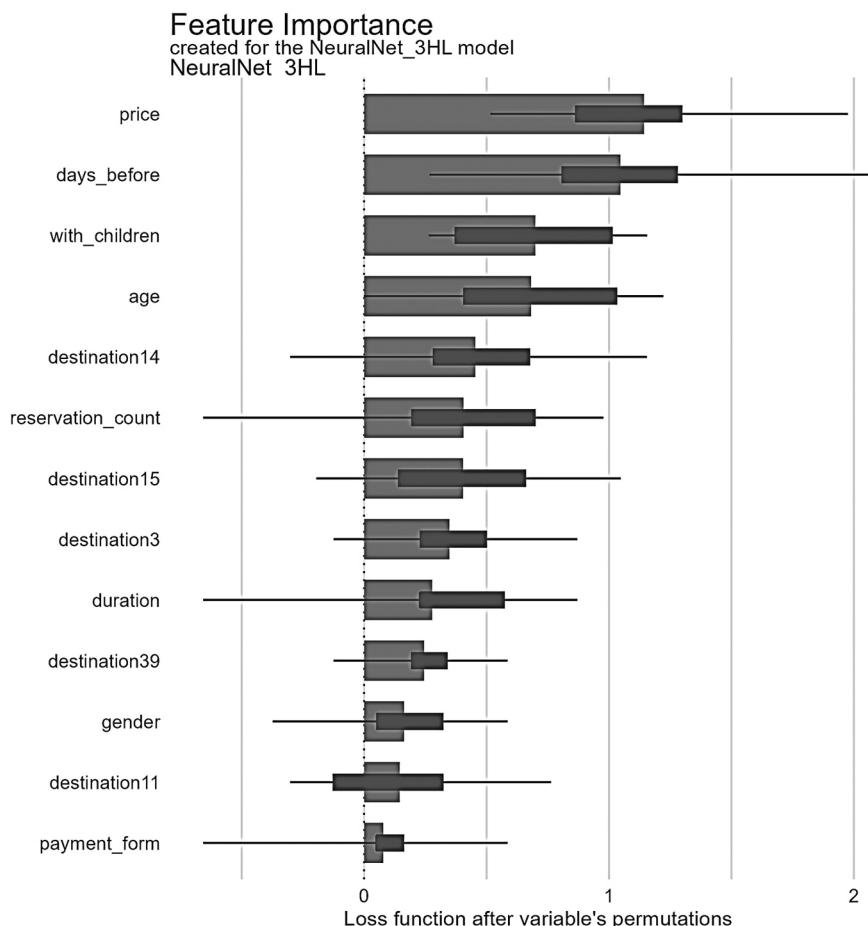


Figure 10.1 Average explained loyalty of travel agency consumers variable importance in the neural network multilayer perceptron model.

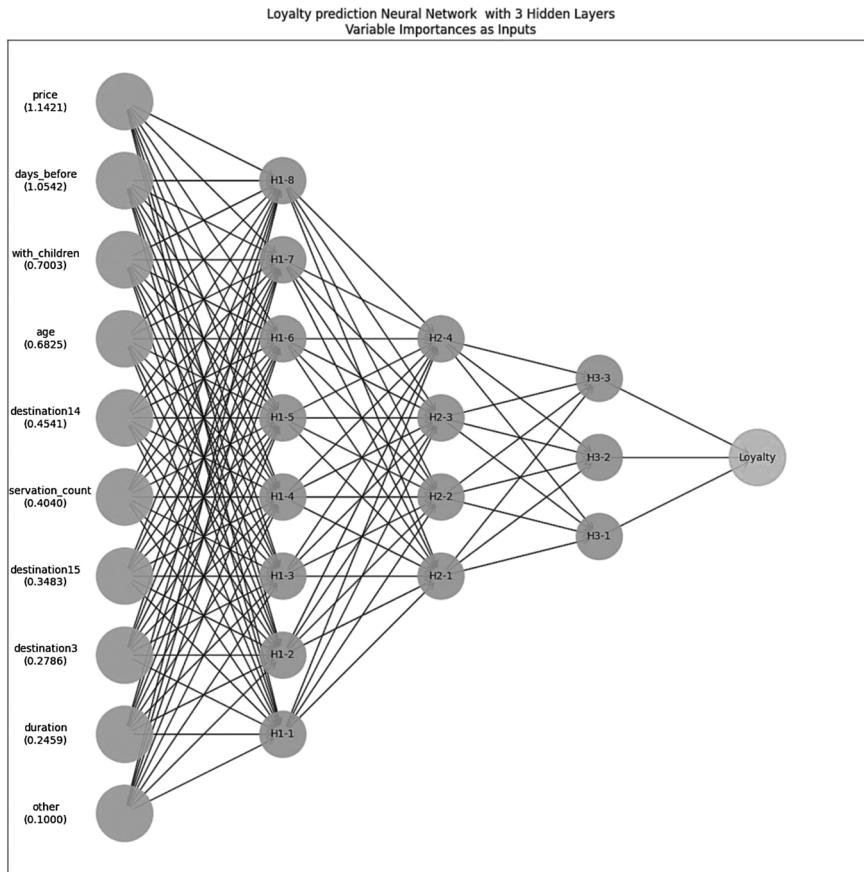


Figure 10.2 Results of the network supervised learning process.

to be the key factors determining the loyalty of travel agency customers: price ( $x_1$ ), time between the date of booking package holidays and its start date ( $x_6$ ), number of children under 14 years of age included in the reservation ( $x_5$ ), age of the buyer ( $x_{12}$ ), destination ( $x_{10}$ ), as well as the duration of the holidays ( $x_9$ ).

## Conclusions

The analysis results allow to characterize a loyal buyer of travel agencies' services. Repeat customers exhibited an average expenditure of PLN 4.652 per person on travel packages, showed a pronounced propensity towards early booking incentives (first-minute offers), and were the least likely among all consumer segments to postpone purchases in anticipation of discounted rates or last-minute promotional deals.

Loyal customers of the analyzed network of travel agencies are middle-aged (their average age is 46) who often travel with their families, especially with children under 14 years of age, who buy more offers (booking holidays for several people), and who prefer longer stays (their trips are most often 10-, 14-day, or longer), planning and booking their holidays well in advance (on average, 72 days before the start date of the holiday, and most often approximately 100 days before departure). More than half of loyal customers represent buyers of tourist trips to the most popular tourist destinations: Greece, Spain, Bulgaria, Turkey, and Egypt, choosing reliable tour operators with a strong competitive position that has been operating in the market for years.

Since effective building of loyalty presented by the buyers of travel agency services is possible only if managers are familiar with the conditions underlying buyers' behavior, the results of the conducted research can be used to identify a group of key customers for the examined enterprise – loyal customers – and to notice its distinguishing features. The research clearly shows that family customers are the loyal customers of travel agencies.

## **Discussion**

Family tourism is one of the most important sectors of the global tourism industry, accounting for approximately 30% of the leisure travel market (Schänzel & Yeoman, 2015). In recent decades, the family tourism market has developed rapidly and has been identified as the most important segment of the global tourism industry (Schänzel & Yeoman, 2015). Tourism for families has become a necessity rather than a luxury. It allows family members to spend unforgettable moments together and create collective memories, thus creating a compelling connection (Carr, 2011; Lehto et al., 2009).

Numerous studies confirm that family members spend quality time and create collective memories and social capital, among other benefits, during family holidays. Authors indicated that parents travel with their children to improve their communication skills, provide them with opportunities to acquire knowledge and create long-lasting, happy childhood memories. Exciting and interactive entertainment activities in which parents and children can optimally participate can be appropriately incorporated into family tourism for children aged five and older. Families with children tend to choose group trips organized by travel agencies (Tseng et al., 2023).

Research aimed at assessing the influence of children on joint decisions regarding the consumption of family tourism (Wang & Li, 2020) showed that decisions regarding tourist trips are often joint decisions due to their characteristics: long-term decision-making process, high configurability, and large investments in time, money, and effort (Bronner & de Hoog, 2008). Tourism expectations can be more easily met if parents include their children's preferences and needs in the decision-making process. As decision-makers, adults want to enjoy the holidays and minimize negative consequences. However, overall satisfaction depends largely on children's experiences (Kozak & Duman, 2012). It turns out that including

children in the decision-making process about purchasing tourist offers can reduce the risk of consequences and ensure a pleasant holiday for all family members (Curtale, 2018).

Modern societies increasingly emphasize family community at home and in free time, including holidays (Kluin & Lehto, 2012). Travel has become more of a necessity than a luxury for families, hence stimulating the development of a significant tourism sector (Lehto et al., 2009). Family travel has become popular worldwide, for example, in Australia, it accounts for 71%, in Indonesia 81%, and in Thailand, 86% (Li et al., 2020). Along with the development of the family tourism market, tourism researchers have also began paying attention to this important segment of buyers. The research focused on family tourism decision-making, motivation, benefits, and experiences of family tourism (Qiao et al., 2022).

Better understanding of the role of children (initiator, information seeker, influencer, decision-maker, buyer, and user) is essential in the decision-making process related to family tourism. Niemczyk's (2015) research confirmed the activity and unique role in making decisions regarding family holidays, indicating that children may play the role of initiators, influencers, and decision-makers to varying degrees. It is worth noting that in the case of tourist offers, children take the initiative, advise, and make decisions.

Families seek places that offer relaxation, the opportunity to spend time outdoors, discover art and cultural heritage, adventure, excitement, and some form of "novelty" (Li et al. 2023, Schänzel & Yeoman, 2015). The best gift for a child is no longer a video game or a new smartphone but quality time spent with the loved ones during a family vacation (Sharma & Arora, 2024). Family travel is expected to grow faster than all other forms of leisure travel (Schäzel & Yeoman, 2015), and the organized offer of travel agencies ideally meets the safety needs of families and their expectations about how travel is organized.

### ***Practical Implementation***

Modern marketing includes many activities that appeal directly to the final buyers of offers to create customer value and build long-term relationships between enterprises and consumers (Kotler et al., 2021). The activities aimed at strengthening buyer loyalty should be addressed to the returning buyers – family customers, middle-aged, traveling for two weeks or longer, accompanied by family members, very often with children under 14 years of age, planning and booking their holidays well in advance, and selecting certain tour operators and popular tourist destinations.

The implementation of activities aimed at building relationships should be reflected in direct contact with the key clients, interactive communication with them, early recognition of the needs presented by the analyzed group (parents, children), and creating individualized offers. Identification – by obtaining a guarantee of repeat purchases, as well as minimizing the risk of future marketing activities – will, beyond any doubt, help strengthen the competitive position of the examined entity. This approach will allow appreciating the returning buyers, which may result in even greater loyalty (Garcia et al., 2022).

The network we proposed not only discovered and remembered the general regularities that govern the course of the loyalty phenomenon but also had the ability to predict which of the existing customers would make a repeat purchase. The variable took the following values for archived data: 0 – if the client is unavailable for access and 1 – if there is no access. Instead, for new customers, it will be a variable in the range  $<0.1>$  understood as the right to return to a new customer after the first purchase.

Using information from the model, which can, *inter alia*, combine customers into groups based on the level of threat from entry on the one hand, and the consequences on the results on the other (“prospective” group – loyal customers and “non-prospective” group – disloyal customers), it is possible to design and direct marketing activities to those who may become long-term customers. In addition, there may be events that occur from the entry or retention of customers.

Both groups of customers – prospective and non-prospective – were identified by the model. Disloyal customers can be targeted for preventive measures. However, the loyal customers will be addressed with offers to purchase new products (cross-selling) or extend the current cooperation (up-selling). The respective activities should include direct contact with key customers, interactive, personalized communication, and creating individualized offers. The approach presented allows appreciating the returning buyers, which may result in even greater loyalty and enable travel agencies to expand the distribution of tourism products worldwide.

In addition to the indicated advantages of the method used, some significant limitations should be indicated regarding the possibility of using it in the activities of companies in the tourism market. The limitations of using the neural network – Multilayer Perceptron method include difficulties in interpretation and lack of transparency of the “black box,” the need to have large data sets, and, in the case of small data, it may produce unstable results. Important from the point of view of implementation possibilities are high computational requirements, the need to standardize input data, and the high costs associated with them. MLP training requires a lot of computing power and time, standardizing input data, which must be normalized appropriately for the model to learn effectively. This may be a significant limitation in the event of shortages of human, equipment, and time resources.

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