St. Petersburg University

Graduate School of Management

Master’s in Management Program

IMPROVING PROFITABILITY BY INCREASING CUSTOMER LOYALTY IN LOW-MARGIN RENTAL SERVICES SECTOR: ADAPTATION IN THE RUSSIAN BIKE-SHARING INDUSTRY

Master’s Thesis by the 2nd year student – Marketing

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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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| Ключевые слова | Лояльность потребителей, удовлетворенность потребителей, прибыльность, велошэринг |

**ABSTRACT**

|  |  |
| --- | --- |
| Master Student's Name | Shestakov Stanislav Vladimirovich |
| Master Thesis Title | Improving Profitability by Increasing Customer Loyalty in Low-Margin Rental Services Sector: Adaptation in the Russian Bike-Sharing Industry |
| Main field of study | Management |
| Year | 2018 |
| Academic Advisor's Name | Olga Vsevolodovna Makarova, Senior Lecturer |
| Description of the goal, tasks and main results | The work is devoted to the study of the influence of customer loyalty on profitability in the Russian bike sharing.  The goals of the research are to analyze existing literature in the field of customer loyalty and its impact on the profitability of an enterprise, to analyze business model of the Russian bike sharing, to quantifiably measure the customer loyalty of Russian users to bike sharing and to measure the influence of the increased loyalty on the revenues and profits of the Russian bike sharing companies.  The main result of the work is the model of the influence of customer loyalty on profitability and the exploration of the main loyalty factors that have the greatest impact on revenue growth and profits in the Russian bike sharing sector. |
| Keywords | Customer loyalty, customer satisfaction, profitability, bike sharing |

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# Introduction

## Background

Bike-sharing service has recently become one of the most innovative sharing models. The system is, though, not novel, and the very first bike-sharing product was created in 1965 in Amsterdam when the government attempted to find an innovative solution to the traffic problem. Later on, the bike-sharing industry evolved within three generations, which included a free-bikes system, coin-deposit system, and advanced technologies generation. (Shaheen, Guzman, & Zhang, 2010)

The first two generations took place mostly in Europe. In the free-bikes phase, the initiatives appeared, on the one hand, extremely successful in France, and, on the other hand, resulted in a failure in the United Kingdom. The launch of “Bycyken” in Denmark in 1995 triggered the second generation of bike-sharing, which featured distinguishable bicycles, designated docking stations and small coin deposits to unlock the bikes, and became extremely successful and widespread across Europe. The third generation of bike-sharing incorporated advanced technologies for bicycle reservations, pick-up, drop-off, and information tracking and involved not only the European region but also Asia and America. (Shaheen et al., 2010) The market took its explosive growth in 2007, and by 2014 more than 855 cities had introduced their bike-sharing systems. (Richter, 2015) (Appendix 1) China appears to be the global leader in the bike-sharing market with 70 cycle sharing brands, 16 million bikes and over 130 million users. (“Simply Put,” 2017) According to Roland Berger, the global bike-sharing market is expected to grow at GAGR of 20% and to reach EUR3.6 to EUR5.3bn by 2020. (Schönberg, Dyskin, & Markewitz, 2016)

The bike-sharing phenomenon is relatively new for Russia. It appeared first in 2013 with the launch of VeloBike and Veli’k companies in Moscow and Kazan. (“Shared Cycling Booms in Russia,” 2014) Later on, a company with a similar business model was launched in Saint Petersburg and is currently operating under the brand “Velogorod”. Overall, two major companies – VeloBike and Velogorod – currently represent the Russian bike-sharing industry and, therefore, its market size can be estimated by the revenue produced by both companies, which totaled in more than RUR301m. (“За Честный Бизнес АО ‘СИТИБАЙК,’” 2018; “За Честный Бизнес ООО ‘ВЕЛОГОРОД,’” 2018)

Recently, the first and largest dockless bike-sharing provider Ofo announced its expansion into the Russian market. (“В России появится китайская система велопроката Ofo,” 2017) Ofo, as well as the other 40 Chinese bike-sharing companies, implement the practice of charging their customers deposits of $30 to $40 before the user’s first ride. The Russian bike-sharing platforms, in turn, do not require the consumer deposits yet. Moreover, the system in Russia supports only station-based bicycles, whereas the Chinese players are mostly operating dockess bikes.

Therefore, the following work investigates the opportunities to increase the customer loyalty to station-based bike-sharing in Russia. The paper elaborates on the key factors, which affect the consumers’ willingness to use shared bikes and provides recommendations on how to increase the customers’ loyalty within the bike sharing customers industry in Russia.

## Research problem, question, and tasks

The current research problem is shaped by the two most relevant issues associated with the launch of a rental business in Russia.

The first issue is academic and related to two main problems. On the one hand, the researchers fail two generate a universal definition of customer loyalty. Some of them refer to the feeling of attachment of a customer to a product. Others name loyalty as repeated purchase behavior, which results from the psychological decision-making process. There are researchers who also include the marketing efforts of potential rivals into the definition of loyalty. (Akın 2012) The following work investigates this issue and creates a definition of customer loyalty suitable to the current topic.

On the other hand, researchers found various ways, in which customer loyalty may affect profits. Therefore, there is a problem of finding a customer loyalty model, which might be suitable for the Russian bike sharing.

The second issue implies that the returns of the Russian bike sharing companies are not stable and they are usually operating at low or negative margins. For instance, the Saint Petersburg’s Velogorod has been operating at negative margins and decreasing returns for the past two years. (“ООО ‘ВЕЛОГОРОД,’” n.d.) Moscow’s Velobike revenue, in turn, is increasing, however, the company’s returns are fluctuating. The previous year, Velobike’s profit margin was about 2%. (“АО ‘СИТИБАЙК,’” n.d.)

Thus, the problem that the current research needs to solve is shaped by the two following issues: finding customer loyalty profit model suitable for the Russian bike sharing and unstable returns with fluctuating revenue of the current players. This implies that in order to increase their financial health, the Russian bike sharing companies need to increase either the wider spectrum of customers or intensify the usage of their services. As, theoretically, the on-time increase in the customers loyalty has a positive impact on a company’s profits, (Reinartz & Kumar, 2002) the companies are in need to increase the Russian customers’ loyalty to bike-sharing.

The current work will be of special interest to the bike-sharing companies in Russia and of those who intend to enter the Russian bike-sharing market.

## Goal:

Therefore, the goal of the research is to identify the key factors, which will increase the customers’ loyalty to bike-sharing in Russia.

Furthermore, the research attempts to answer the following question:

1. What are the key factors which will increase the customer loyalty to bike sharing in terms of usage frequency?
2. What is the feasible effect of the increased customer loyalty on profits in the Russian bike-sharing?

Research tasks:

1. Identify what bike sharing is and classify it according to its history and business models
2. Identify the business model of the Russian bike-sharing
3. Find the definition of customers loyalty to a product and elicit the main factors which affect it
4. Find the most important metrics for measuring customers loyalty
5. Create the framework of customer loyalty effect on profitability in the Russian bike-sharing
6. Conduct a survey on customers loyalty among the current bike-sharing users in Russia
7. Come up with the most suitable tools to increase the customer loyalty

## Theoretical background and the research gap

Since the bike sharing is relatively to the Russian market, there is no vivid approach to identifying the phenomenon in the Russian literature. (Mamraeva & Tashenova, 2016) identify bike-sharing as a rental system, usually created on a non-commercial basis, which allows customers to rent a bicycle at one of the automated stations, make a trip and return the bike to any rental point in the same city.

However, substantial work has already been done on identifying the bike-sharing as a phenomenon and investigating the strategic side of this topic by the foreign researchers. (Martin, Cohen, Botha, & Shaheen, 2016) identify bike-sharing as a system provides shared bicycles for use by the general public. (Shaheen et al., 2010) also introduce the definition of bike-sharing not only as a system but also as a strategy for combating the current transportation problems in modern cities. Prior to their work, (DeMaio, 2009) created a classification of bike-sharing based on the history of its development and introduced the three-generation framework to the phenomenon, where the last generation is integrated with IT-infrastructure and computing power.

Some researchers also view bike sharing as a part of the sharing evolution and suggest approaching this phenomenon within the large scope of the sharing economy. (郭, 2017) Fang found that dynamic rather than static pricing is more common for the sharing economies. (Fang, Huang, & Wierman, 2017) Kung and Zhong further presented a game theoretical study, which concluded that two features of membership-based pricing outperform the other pricing strategies by two basic features: earliness of collecting money and maximizing the price-sensitive order frequency. (Kung & Zhong, 2017) However, the scholars are still struggling to find common ground on the topic of sharing economy. Botsman identifies sharing economy as ‘an economic system based on sharing underused assets or services, for free or for a fee, directly from individuals’. (Botsman, 2015) Other scholars, though, regard sharing economy as “the growing ecosystem of providers and consumers of temporary access to products and services.” (Santana & Parigi, 2015) Therefore, disputes whether bike sharing is related to the sharing economy still exists among scholars.

Also substantial work has been done on the economical side of the topic. Waserhole and Jost developed a pricing strategy to capture the part of the demand leading to the best behavior for the system. (Waserhole & Jost, 2012) Rousseau in collaboration with other scholars concluded that the future demands in bikes for each station is perfectly known over a short-term horizon. (Contardo, Morency, & Rousseau, 2012)

Customers’ loyalty in bike-sharing is a topic which has not got yet sufficient attention from scholars. There are a number of approaches to the definition of loyalty. According to the definition of Shevchenko, loyalty is the adherence of buyers to a brand, motivated by a firmly rooted habit of buying the same product or using the same service.(“Словарь основных маркетинговых терминов,” n.d.) In turn, customer loyalty can be defined as a positive attitude of the buyer to a particular product, brand, store, service, etc., which, although a consequence of factors significant to the buyer, lies more in the emotional sphere. (Сысоева & Нейман, n.d.) Russian marketer Dymshits argues that “consumer loyalty is based on direct consumer characteristics of the product or services that form the preference for this brand when buying in a product group, as well as the attitude towards it.” (Дымшиц, 2007) Thus, it is the accumulated experience of consumption that forms the relation to the commodity.

Rare works can be found on customers’ loyalty in bike-sharing. However, (Kalina, 2016) introduced her attempt on finding the key factors which might affect the customers’ loyalty in the different customers’ segments in bike-sharing. In 2017 the French Deloitte also created research on customer loyalty in bike-sharing and identified that for 64% of respondents the key factor of switching for shared bikes is a “good value for money,” which implies availability and the quality of the bikes. (Turner & MacMillan, 2017)

Even though a substantial literature has been done on the bike sharing pricing, it is mostly related to the station-based bike sharing. Consumer deposits with the third-generation bike-sharing is an extremely new phenomenon, therefore, little research has been yet done on that pricing strategy for station-free bike sharing. Therefore, due to the novelty of the topic deposits strategy of bike sharing services remains unexplored.

# Chapter 1. The theoretical framework of customer loyalty in bike-sharing

The following part of the work provides a clear understanding of customers loyalty and its impact on profitability. Therefore, the second chapter includes the introduction to the previous and current researches on the relationship between customer loyalty and profitability, the history of loyalty concept, its types and the main factors which affect the level of customer loyalty in theory.

The conclusion of this chapter includes the theoretical framework which is applied in the third chapter for creating a model.

## 1.1 The Definition of Customer Loyalty

Wijaya, 2005, claimed that the finding a universal definition for loyalty is a complex problem. Many researchers understand customer loyalty as a subsequent purchase behavior of the customers. (Wijaya, 2005) So Leong, 2012, claims that there are no unified definition of the loyalty since many researchers include different aspects of loyalty into it. (Leong, Hew, Ooi, & Lin, 2012)

One of the earliest definitions of customer loyalty was made by Jacoby, 1978. He defined loyalty as a biased behavior, at which a customer makes repeated repurchases of a particular product. The main emphasis was put on the psychological aspect of the phenomenon. (Jacoby & Chestnut, 1978)

Engel and Blackwell, 1982, defined loyalty as “the preferential, attitudinal and behavioral response toward one or more brands in a product category expressed over a period of time by a consumer.” (Engel & Blackwell, 1982)

Dick and Basu, 1994, defined loyalty as a consumer commitment to the brand or approach to the brand (service, product category, etc.) The researchers further made their emphasis on the attitudinal customer loyalty and highlighted appropriate strategic actions for capturing loyal customers. (Dick & Basu, 1994)

Kotler, Bowen and Makens, 1999, made a definition of customer loyalty as the degree likelihood that a customer would return for an additional purchase. The following lines provide the quoted definition of loyalty made the researchers: “How likely customers are to return and their willingness to perform partner-shipping activities for the organization.” (Kotler, Bowen, & Makens, 1999)

Oliver, 1997, defined loyalty as "a deep held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts that have the potential to cause switching behavior." (Oliver, 1997)

Jones and Sasser, 1995, understood loyalty as attachment to a particular product or service. They further induced that customer loyalty is commitment to make an additional purchase in the near future. They also claimed that in a business-to-business context the phenomenon can be defined as a customer’s commitment to relationships with an organization by buying their products and services over time, and spreading the word of mouth about the company among other potential customers. (Jones & Sasser, 1995)

McCain, 2005, defined loyalty as “the repeated purchase behavior led by favorable attitudes or as a consistent purchase behavior resulting from the psychological decision-making and evaluative process.” (McCain, Jang, & Hu, 2005)

Jandaghi, 2011, defines loyalty as: “it is a strong commitment to superior services or goods repurchase in future to acquire the same brand despite of marketing efforts by potential rivals and their impacts.” (Jandaghi, Mehranjani, Seresht, & Mokhles, 2011)

For the further convenience, the following table summarizes the definitions of loyalty created by different researcher over the last five decades.

**Table 1. Definitions of Loyalty**

|  |  |
| --- | --- |
| Definition of loyalty | Author |
| “... biased behavior, at which a customer makes repeated repurchases of a particular product.” | (Jacoby & Chestnut, 1978) |
| “… the preferential, attitudinal and behavioral response toward one or more brands in a product category expressed over a period by a consumer.” | (Engel & Blackwell, 1982) |
| “… a consumer commitment to the brand or approach to the brand (service, product category, etc.)” | (Dick & Basu, 1994) |
| “How likely customers are to return and their willingness to perform partner-shipping activities for the organization.” | (Kotler et al., 1999) |
| "… a deep held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts that have the potential to cause switching behavior." | (Oliver, 1997) |
| “…a feeling of attachment to a particular company’s products or services.” | (Jones & Sasser, 1995) |
| “… the repeated purchase behavior led by favorable attitudes or as a consistent purchase behavior resulting from the psychological decision-making and evaluative process.” | (McCain et al., 2005) |
| “… a strong commitment to superior services or goods repurchase in future to acquire the same brand despite marketing efforts by potential rivals and their impacts.” | (Jandaghi et al., 2011) |

Source: Author

Akın, 2012, examined the historical background of the studies concerning with the concept of loyalty and found that the researchers that try to create the definition of loyalty struggle with the breadth of the concept. Researchers have consequently been failing to make a universal definition of customer loyalty. However, this definition might be that vital factor which could help companies to keep their customers at hand in the long-term. (Akın, 2012)

Based on the references collected above, the following lines provide the general definition, which current work refers to:

**Customer loyalty to a product or service** is a repeated purchase behavior, which is driven either by the attitude of a person towards the product or by the convenience of the good or service received.

## 1.2 Emergence of customer loyalty.

The genesis of loyalty can be attributed to 1923, when the American magazine "Harvard Business Review" published an article by Copeland, 1932, which was devoted to the problems of studying consumer behavior. At that time, more and more mass-produced goods began to be delivered to stores in individual packaging. (Newell, 2001) On the packaging for the first time appeared an inscription with the name of the product and the name of its manufacturer - a trademark or brand. The author of the article noticed that brand is a way of distinguishing the goods of one manufacturer from product of another supplier. This forced market players to actively use advertising and increase consumer demand. For example, in 1912, the American Sugar Refining Company began supplying sugar in packages with its own brand. This allowed the company to advertise the benefits of its sugar brand and stimulate its use in the households, for example, for the preparation of jam. (Copeland, 1923)

Copeland, 1923, identifies three types of consumer attitudes toward the brand: *recognition, preference, and insistence*. If the brand is recognized, the buyer may prefer it to unknown brands and products without a trademark. The next stage - brand preference - is the situation when the product of a certain brand becomes a mental standard for the consumer. The buyer deliberately searches for and requests this brand in the store, choosing an alternative only in case of his absence. Preference can develop into an insistent brand requirement, when the goods of any other brands are rejected by the consumer. (Copeland, 1923) In spite of the fact that in his article Copeland does not use the term "loyalty" himself, in the modern understanding the stages of development of the attitude to the brand described by him are examples of varying degrees of consumer loyalty.

The basic empirical data on the phenomenon of loyalty were obtained in the studies conducted by the “Chicago Tribune” in the late 1940s and early 1950s in the United States. (Kiseleva, Nekrasova, Mayorova, Rudenko, & Kankhva, 2016) The researchers of that timer were engaged in collecting information about what and how often the Americans buy for the needs of their household. Until the end of the 1960s behavioral interpretations of loyalty prevailed among the researchers of consumer behavior. In the analysis of exclusively behavioral variables, loyalty models were usually based on indicators such as the number of lost and acquired customers over a certain period, the time intervals between purchases that the individual commits, the market share, which is the share of one brand's sold goods among all the products in that category. Reduction of social and psychological factors of loyalty is a characteristic feature of applied research of that time. This happen mostly due to the fact that the initial mass of empirical data was accumulated in the sphere of consumption of everyday goods. Consumer behavior in relation to goods such as milk, fruit or detergents is significantly different from the consumption of durable goods, such as clothing, electronics, cars, etc. (Kandampully, Zhang, & Bilgihan, 2015)

The year 1969 became the starting point in the study of the socio-psychological nature of loyalty. (Rai & Srivastava, 2012) Criticizing the descriptive behavioral models of loyalty, Day, 1969, proposed to analyze the patterns of formation of the attitudes that regulate this behavior. (Day, 1969) Modern research of consumer loyalty pays the greatest attention to social setting as the main psychological mechanism of loyalty functioning, and in particular to its affective and cognitive component. (Rai & Srivastava, 2012) To distinguish between true psychological loyalty and inert repeated consumption, Jacoby, 1978, introduces the notion of "commitment". He identified two types of commitment, which included *affective and calculative commitments*. Affective commitment was defined as the degree to which the consumer wants to maintain its relationship with the brand. Calculative commitment was mentioned as loyalty for external reasons, and not on your own. (Jacoby & Chestnut, 1978) In the subsequent scientific publications of other authors, loyalty and commitment of consumers are generally used as equivalent concepts, unless the difference between them is specifically explained. (Kandampully et al., 2015)

1980s through1990s, many commercial organizations began to apply a specially developed tools for managing the quality of goods and services, which affected not only the production, but also all other processes in the company. These investments in improving the quality of products should have paid off due to greater customer satisfaction, since it was believed that buyers satisfied with the quality of the goods or services would return to them again - that is, they would be loyal to the company. (Rai & Srivastava, 2012)

Replacing the concept of loyalty with satisfaction led to a temporary decline in the research interest in the former. Nevertheless, this seemingly logical assumption was refuted by a number of studies that showed that satisfaction is only one of the conditions for a loyal consumer attitude. Therefore, in situations of high competition between producers, product satisfaction is not a decisive factor in the re-purchase. In later concepts, it was assumed that loyalty is the result of a combination of several factors, in addition to satisfaction, among which there may be a sense of superiority of goods or services, social norms and obligations, individual customer luck, and also the synergistic effect of all the listed components.(Kandampully et al., 2015)

Recently, the concept of Reichheld has gained a special popularity in the studies of consumer behavior. (Kiseleva et al., 2016) From his point of view, the existing intention of the consumer to recommend a brand to others is the most accurate sign of loyalty, which is expressed in repeated purchases and actual recommendations. This assumption was supported by the results of the longitudinal study of consumers in three market categories - banking services, retail sales and Internet access services. The intensity of the recommendation in comparison with other signs of loyalty to the brand was statistically the most effective predictor of consumer behavior: the respondents who expressed their intention to recommend the brand in the survey were the regular consumers of its goods or services, and recommended them in their circle of communication. (Reichheld, Teal, & Smith, 1996)

Summarizing the historical path of consumer loyalty research, two main approaches to the consideration of this phenomenon appear. The first approach is to construct a descriptive model of loyalty, interpreting it as a set of external manifestations of consumer behavior, which imply regularity and volume of purchases, recommendations and other behavioral characteristics. Researchers often manage to obtain a satisfactory forecast based on empirical generalizations, relying only on the data of the descriptive model. Simplicity and predictive capabilities of individual models contributed to their active application in practice to measure customer loyalty. Nevertheless, the lack of interpretation of its socio-psychological mechanisms and the influence of external factors led to a situation, in which the reasons for a particular change in the formal index of loyalty remain inexplicable.

The attempt to solve the problem of the "black box" of behavioral approaches was undertaken by researchers who suggested treating loyalty as a special kind of attitudes. The emergence of the first explanatory models of loyalty is associated with a cumulative analysis of the behavior, content of the cognitive and emotional component of the social attitude towards brands. At the same time, there are other less common concepts. For example, there was an idea of the similarity of the phenomenon of consumer loyalty and the relationship of spouses in a marriage, which also allows us to explain some aspects of its psychology. (Kiseleva et al., 2016)

Despite a significant number of foreign scientific publications devoted to this topic, the very concept of loyalty remains controversial. For example, researchers have not yet come to a common opinion whether loyalty is a socio-psychological attitude or a behavioral pattern. Descriptions of the psychological nature of loyalty also differ. Almost all authors note that increasing loyalty is associated with a decrease in the probability of the employee leaving the company. (Kiseleva et al., 2016)

Behavioral approach is based on the assumption that the degree of correspondence between the behavior of people and their actions depends on three conditions:

1) actions should be perceived as a result of free choice;

2) actions must be committed publicly;

3) rejection of them should be perceived as coupled with difficulties and losses. (Dick & Basu, 1994)

In the behavioral approach, the loyalty (behavioral commitment) is seen as the degree of an employee’s willingness to continue working in the company, the desire to remain in the organization, or as an approved behavior that goes beyond formal corporate requirements. In general, the level of loyalty is defined as a function of costs and rewards associated with belonging to a particular company or organization. (Mattila, 2004)

A number of scientists, such as Aranya, Jacobson adhere to the installation approach and put forward the concept of attitudinal commitment. This term refers to the emotional attitude of a consumer to a brand or a product, and loyalty is defined as an emotional response that includes concern for the company and its products, a sense of affiliation, interdependence or trust. (Aranya & Jacobson, 1975)

The attitudinal approach assumes that loyalty is formed as a combination of previous experience, perception of a brand or a product and quality of a good or a service. The combination of these factors leads to the emergence of positive feelings towards the product, which are then converted into loyalty. (Aranya & Jacobson, 1975) Some of the researchers consider loyalty as a positive emotional reaction to a manufacturer, including its goals and values. (Buchanan, 1974)

## 1.3 Customer Loyalty Types

According to Barringer and Ireland, 2010, consumer loyalty to the brand is a valuable asset of a company whose consumers are committed to its product or service and buy them from time to time. (Barringer & Ireland, 2010) At the same time, Aaker and Equity, 1991, notes that consumers' loyalty to the brand shows how likely they will change their preferences and choose the brand of the competing company at the moment when there is a change in the price, quality or other characteristics of the goods or services provided. (Aaker & Equity, 1991)

Researchers have created two main approaches to the issue loyalty identification. The first one is based on the allocation of types of customer loyalty, the second one is based on the influence of various factors of a product or a service (price, quality, service, etc.) on loyalty. The third approach is concerned with the conscious evaluation of a product and its attributes or a conscious assessment of the benefits of additional purchases, which make a customer committed to a particular service supplier. (Rai & Srivastava, 2012) It would be appropriate to describe all the basics of the three approaches.

There are three main types of loyalty:

1) ***Behavioral loyalty*** arises when a consumer buys a product or service of a particular brand for a certain time, but at the same time, there is no attachment to the brand. In this case, the consumer can be indifferent to the brand and when a more favorable offer from the competitors appears, a consumer switches to another brand or product without hesitation. Here, in fact, loyalty is not such, because repeated purchases are not always the result of adherence to the brand.

2) ***Altitudinal loyalty*** assumes a consumer's interest in buying a particular brand, due to the emotional and psychological attachment of the buyer to the brand or a product. However, commitment does not always guarantee the availability of purchases, since the consumer may not have the opportunity to commit them.

3) ***Cognitive type*** includes both behavioral and attitudinal loyalty. In addition to the fact that the consumer constantly buys brand products, he also experiences emotional attachment to him, as well as deep satisfaction with his aspects.

Based on the loyalty aspects described above, (Dick & Basu, 1994) developed a matrix that reflects both the customer's relationship to the brand and the frequency of purchases they make.

McMullan, 2005, collected various classification of loyalty reflected in the previous works of researchers concerned with the phenomenon. His outcomes are reprinted in the table below:

**Table 2. Customer Loyalty Types**

|  |  |
| --- | --- |
| Author | Contribution to classification of customer loyalty |
| (Jacoby & Chestnut, 1978) | 3-dimensional classification which reflects ways of measuring customer loyalty:  - behaviour  - psychological commitment  - composite indices |
| (Dick & Basu, 1994) | Their study was concerned with the relative attitude and “potential moderators of the relative attitude to repeat-patronage based on social norms and situational factors.” Relative attitude is known as the level at which the consumer's assessment of one alternative product is higher than another one. Classification including spurious, latent and sustainable categories of loyalty |
| (Baldinger & Rubinson, 1996) | Developed a composite approach, which evaluates the forecasted ability of behavioral and attitudinal data to customer loyalty |
| (Hallowell, 1996) | “Investigated the relationship among customer satisfaction, loyalty and profitability” |
| (O’Malley, 1998) | Developed a research on the effectiveness of various loyalty programs |
| (Raju, Srinivasan, & Lal, 1990) | Developed the way of measuring loyalty within the |
| (Reynolds & Beatty, 1999) | Created a way of measuring commitment, assuming that commitment is equal to loyalty. The scale he created included items, which reflected ego involvement, purchase involvement and brand commitment |
| (Oliver, 1997) | Mainly focused on the situational effect.  Oliver developed four-stage model of customer loyalty creation based on previous studies but added the fourth stage, called action. |
| (Jones & Sasser, 1995) | Found a new aspect of customer loyalty, which was called “cognitive loyalty”. It implies a “higher order dimension involving the consumer's conscious decision-making process in the evaluation of alternative brands before a purchase is affected.” One aspect of cognitive loyalty is switching/repurchase intentions, which moved the discussions beyond satisfaction, towards behavioral analysis |

Source: (McMullan и Gilmore 2003)

Researchers also point out several stages in the formation of customer loyalty, which are also called loyalty levels:

1) ***Potential buyer.*** There is a need for a product or service, but it is not associated with any brand, that is, the customer has not yet applied to the company and did not purchase its products. Consumers with this level of loyalty are those who decided to buy products of this kind for the first time, as well as customers of competitors. At this stage, the main task of the company is to persuade the customer to purchase exactly his products, attracting his attention with the help of various communication tools.

2) ***Random (new) buyer***. There is a one-time purchase of a products. The main task on this stage is to cause the desire to make a second purchase. Since the client first contacted the company, his further cooperation with it will depend on the impressions of the products and the company as a whole. It is very important that all factors that affect loyalty are consistent with the expectations of the consumer.

3) ***Customer.*** The consumer periodically uses the products of the company, but has not yet become a regular customer. He can also use the products of competitors. It is important to create for the buyer an additional emotional value, that is, to exceed his expectations, as well as differentiate his company from competitors, so that next time he turned to it. Here, some unexpected pleasant gifts or discounts will be appropriate.

4) ***Regular customer***. The consumer regularly purchases the goods of this particular brand or applies for services to this company. The main task of this stage is to personalize the attitude towards this client, to reveal its hidden needs and to determine the reasons for the persistence. The methods of the previous stage are applicable here.

5) ***Follower (loyal client).*** A loyal and emotionally attached to the company buyer. Such a consumer is ready to close his eyes to some shortcomings of the firm, if they are of a non-permanent nature. However, even such customers will prefer the products of competitors, if these shortcomings will not be eliminated over time. Therefore, at this stage, the main task is not to disappoint the buyer, to support his high opinion of the brand and to remind that the company treats him in a special way. (Kiseleva и др. 2016)

These five consecutive stages of forming loyalty reflect the way of the consumer in his relationship with the company. The main task of allocating loyalty levels is to make changes in relations noticeable for both the company and the consumer, as investments in creating loyalty are among the most promising in the firm's activities. (Turner и MacMillan 2017)

## 1.4 Loyalty Programs

Loyalty programs represent a set of activities aimed at building customer loyalty to a brand or a product. (Breugelmans и др. 2015). Some researchers define loyalty programs as programs that allow customers to accumulate free bonuses while making repeated purchases of company products. (Breugelmans и Liu-Thompkins 2017). Barry Berman identified the following types of loyalty programs:

**Table 3. Loyalty Program Types**

|  |  |  |
| --- | --- | --- |
| Program Type | Program Description | Examples of Applications |
| A client receives an additional discount or bonus upon registration in the program | • Open membership  • Equal remuneration for all  • There is no information about the buyer and his purchase history  • Lack of targeted impact | Purchase for a symbolic cost of a special card in a supermarket, which enables an unchanged discount for a customer |
| The buyer receives 1 point for a certain amount spent | • Open membership  • Absence of data on purchases of a specific customer | Cumulative programs |
| A consumer receives a discount or points on the funded system | • Encouraging buyers to spend enough money to move to a new level  • Lack of personalization of customers | Restaurants |
| Clients receive personalized bonuses | • Program members are segmented based on purchase history  • Personalized approach  • Need for complete customer information | Auto Dealers |

Source: (Berman 2006)

As it is stated in the table above, all loyalty programs are divided into four types depending on the bonuses provided. In addition, an important aspect of this division is the presence or absence of a personalized approach.

The main advantages of loyalty programs:

1) ***New customers attraction.*** Obviously, the offer of a discount or bonus will cause interest of consumers who are not customers of the company.

2) ***Increase in the degree of customer satisfaction.*** Anyone will be pleased in addition to the purchased product or service to receive an unexpected gift.

3) ***Increase in customer loyalty.*** Getting a discount card on a certain company's products reduces the likelihood of the buyer turning to competitors.

4) ***Increase in brand awareness.*** Usually launching a loyalty program corresponds to its promotion, which also affects brand recognition. Moreover, known loyalty programs are sometimes the topic of discussion at different levels.

5) ***Reduction of the "outflow" of customers.*** Often, this happens when answering the strategic course of competitors who have lured the company's customers.(Barringer & Ireland, 2010)

## 1.5 The Key Determinants of Customer Loyalty

Under the factors, which influence the satisfaction and loyalty, researchers understand certain qualities of a product or service that are important to the consumer and have a direct influence on her, forming her ideas about the product itself and the company as a whole. In this paper, several main factors will be highlighted, which will be discussed in details below. Quality of products and services, as well as their prices, remain among the most important factors affecting customer satisfaction since they are inseparable attributes of each product and have a great influence on consumer behavior.

*1.5.1 Customer Satisfaction: Investigating the Relationship Between Customer Satisfaction and Loyalty*

As was proved earlier, a satisfied customer, combined with the appropriate actions of a company, most often becomes an adherent of the brand and is ready to make repeated purchases. However, one desire to make a purchase is not always enough to implement them. There is a number of factors that can prevent the client from contacting the company and purchasing its products.

Researchers explain consumer satisfaction as the extent to which the perceived value of a product or service meets the consumer's expectations. (Hill & Brierley, 2017) Each customer before the purchase of any product forms certain expectations and desired results, which it must satisfy. This includes not only the satisfaction of the need as such, but also the emotional evaluation of the components of the product or service. Entering the restaurant, a person does not just want to satisfy the physiological need for food, he wants to get a lot more - a pleasant atmosphere, courtesy of the staff, refined food and so on. For all this he is ready to pay certain money, often much more than what would be required to satisfy the primary need. Hence the conclusion that when selling a product or service, the company sells not only a physical object or helps in solving a problem, it provides a huge number of "component" aspects that affect the consumer's emotions. Through these emotions, the company influences the subconsciousness of the consumer and his further behavior towards the firm's products. If the product or service fully met the expectations of the consumer or even surpassed them, he will unconsciously want to purchase them again when the need arises, and sometimes even in the absence of it. Moreover, such a client will recommend the company to her friends, acquaintances and relatives, thereby enhancing the brand image and attracting new potential consumers for the company.

Consequently, we can conclude that customer satisfaction directly affects his loyalty to the company. This hypothesis was confirmed by many researchers who studied the impact of satisfaction on consumer loyalty to the brand. In particular, Albert Caruana and Mohammad Suhainy Abdull Rahim in their works have proved that customer satisfaction has a direct impact on their loyalty: (Young, 1998) (Herrmann, Xia, Monroe, & Huber, 2007)

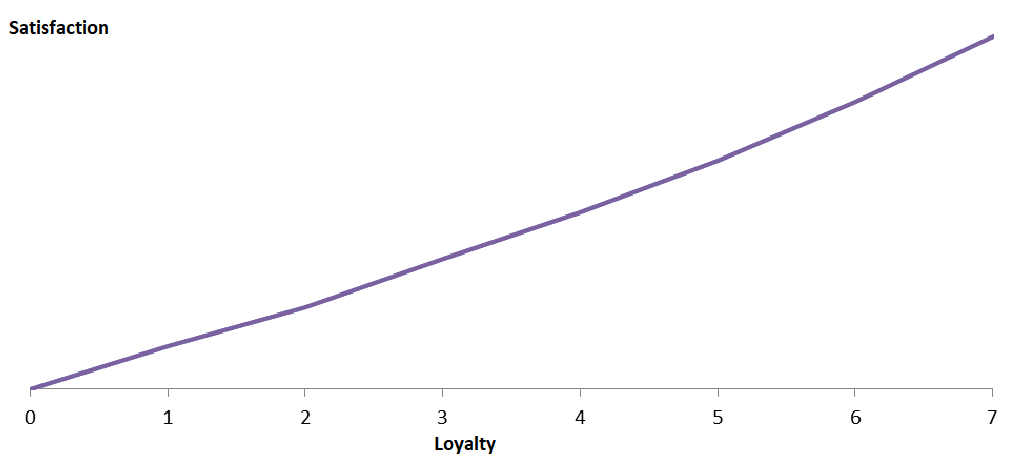
**Table 4. The level of significance of customer satisfaction for their loyalty.**

|  |  |
| --- | --- |
| Customer Satisfaction → Customer Loyalty | t-values |
| Albert Caruana | 8,44 |
| Mohammad Suhainy Abdull Rahim | 10,466 |

Source: (Herrmann et al. 2007)

T-values denote the Student's coefficient, which reflects the significance of the variable. In both results, there is a strong impact of customer satisfaction on loyalty.

Soderlund in his studies came to the conclusion that the relationship between satisfaction and customer loyalty is almost linear. He used a seven-point scale of satisfaction, where 1 - very dissatisfied, and 7 - completely satisfied:

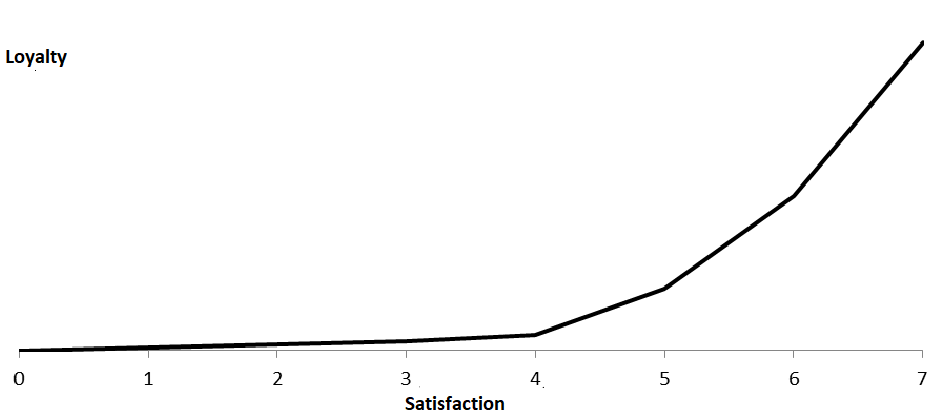


**Figure 1. Dependence of consumers' loyalty on the degree of their satisfaction.**

Source: (Söderlund, 1998)

On the other hand, another hypothesis happened to be proved and showed that the impact of customer satisfaction is not always key to his loyalty. He divided the satisfaction of consumers into three levels - low, medium and high. The results obtained showed that the relationship between satisfaction and loyalty is strong only in two cases out of three - when clients are not satisfied and when they are satisfied. In the case of average satisfaction, its influence on loyalty is weakened. The reason for that is that dissatisfaction and satisfaction prompt the client to act - change the supplier or deepen relations with him, respectively. In turn, average satisfaction does not specify his preferences and is not an incentive for any activity. In this case, customer’s behavior is difficult to predict, she can both continue to contact the company and prefer products of competitors. (Hill & Brierley, 2017)

Bowen and Chen, in turn, also compiled a model of the impact of customer satisfaction on loyalty. In their study, they used the same seven-point scale as Soderlund, but their results showed a non-linear relationship between satisfaction and loyalty:



**Figure 2. Dependence of consumers' loyalty on the degree of their satisfaction.**

Source: (Fornell, Johnson, Anderson, Cha, & Bryant, 1996)

Following the figure above, a decrease in satisfaction by 1 point (from 7 to 6) can lead to a catastrophic drop in loyalty (about 50%). Consequently, it can be argued that the company needs to have not just satisfied customers, but those whose expectations were less than the provided emotional benefits.

Many scientists believe that satisfaction is the link between the factors that affect loyalty and the loyalty of customers. This assertion will be discussed in detail below.

*1.5.2 Quality of products and services*

Under the quality of products (product quality refers to the perceived quality of products) researchers understand the characteristics of a product or a service that carries the capacity to satisfy the expressed or implied needs of customers. (Ghezelbash & Khodadadi, 2017) Kim in his studies divided the quality of products into perceived and actual. The first is the degree to which the product or service meets the client's expectations and representations, while the second reflects the real quality of the product, the absence of defects or compliance with certain standards. Each of these aspects of the quality of the product or service has its own characteristics. The actual quality is easy to assess, by detecting the degree of compliance with the standard, reference part or prescribed properties. Perceived quality, in turn, is often difficult to assess, because it is subjective for each person. (Kim & Shim, 2017) Each customer has his or her preferences for certain characteristics of the product. Therefore, two consumers who bought absolutely identical laptops can differently judge about its quality. The first design is important, and it corresponds to its expectations. Consequently, the perceived quality will be at a high level. At the same time, for the second, the technical characteristics of the goods that for one reason or another did not satisfy their needs are more significant. In this case, the perceived quality will be low.

In the conditions of rapid scientific and technological progress and changes in markets, the needs, preferences and expected values ​​from the purchase of goods or services undergo changes. Companies that do not follow the market trends will provide products, which do not meet the needs of customers and, as a consequence, have a low perceived quality. In this regard, it is vitally important for companies to monitor market innovations and react promptly to changes in the market.

Fornell, in 1998, noted that perceived quality is more meaningful for the consumer and more influences his emotional evaluation. In this regard, it is the perceived quality that has largely served as the object of research for many scientists. (Fornell et al., 1996) Later, Tsiotsou argued that it is the perceived quality that forms the consumer's view of the product and is a positive or negative factor for making repeated purchases. Moreover, he proved that the higher the perceived quality of a product, the higher the customer's satisfaction with its acquisition and use. (Tsiotsou, 2006)

Watson interviewed 765 customers in the manufacturer of a wide range of aluminum products and proved that there is a positive relationship between product quality and customer satisfaction. (Watson, 1998) Later, Tsiotsou, who took sports shoes and interviewed 197 consumers, confirmed this hypothesis. (Tsiotsou, 2006)

Thus, tracing the relationship between the quality of goods and services and the satisfaction of consumers, one can depict the relationship between quality, relative and behavioral loyalty as follows (hereinafter: the "+" sign above the arrow denotes a direct link, the "-" sign represents the opposite, the arrow itself shows direction of influence):

Product Quality

Satisfaction

Behavioral Loyalty

Attitudinal Loyalty

**Figure 3. The Influence of Product Quality on Consumer Loyalty**

Source: Author

The quality of a service can be classified by analogy with the quality of products as perceived and real. As discussed earlier, perceived quality indicates how much the service level meets the client's expectations, while the actual quality reflects compliance with certain standards or generally accepted standards. However, a significant difference between product quality and service quality is the increased role of the human factor in the second case. If a product or service is purchased by a customer to meet any needs, he assesses the level of their compliance. In the case of determining the quality of service, the client's perception is strongly influenced by his emotional state. (Hui & Yee, 2015) For example, being in a bad mood, a person can get angry at the constantly smiling staff. He can be embittered by their good mood or excessive courtesy.

The whole process of customer service can be divided into three phases:

1) ***Before the purchase.*** At this stage, the customer does not yet use the company's products. He is only going to do it or has turned to the company in order to evaluate the set of the products offered or compare it with the goods or services of competitors. It is very important to have a positive influence on the client, demonstrating a high level of service. Especially if he applied to the company for the first time, after all, as mentioned above, at the stages of "potential buyer" and "new buyer" the role of the first impression is critically significant.

2) ***During the purchase.*** If the company managed to attract the consumer, it should strive to translate the relationship with it to a new level - "customer" or "regular customer". The buyer is more likely to make a second purchase if he remembers the care of the staff, their benevolent smiles and competence.

3) ***After making a purchase.*** This stage may include replacement of a defective product, warranty repair and the feedback. This is also an important part of the interaction with the buyer, because the rapid and qualitative correction of "mistakes" increases the image of the company in the eyes of the consumer.

Service Quality

Satisfaction

Behavioral Loyalty

Attitudinal Loyalty

**Figure 4. The Effect of Quality of Service on Customer Loyalty**

Source: Author

*1.5.3 Prices & Switching Costs*

Price is the amount of money that a consumer pays to buy a product or service. (Gupta, Schivinski, & Brzozowska-Woś, 2017) In other words, this is the amount of money for which the seller is ready to transfer, and the buyer to receive the product.

Price is one of the factors that determine consumer buying behavior. First, when choosing a product, consumers proceed from their cash. Whatever the characteristics of the product or service, without having the money to buy them, the customer will not be able to purchase this product. It has been repeatedly proven that the price that consumers are willing to pay for goods or services depends on their level of income. (Pigou, 2017) In this regard, it is very important for companies to produce the right segmentation of the market and to have a complete picture of the income of the target audience. Secondly, most often for the buyer the price is an indicator of product quality. (Kagel & Roth, 2016) It forms the image of the product or service, its characteristics and consumer expectations, relevant to the specified price. There is a stereotype that the high price of products signals about its good quality, while the low one - about the bad. In reality, it's just a delusion. Many firms use a cost leadership strategy, providing buyers with quality goods at relatively low prices. However, this stereotype has a place to be, and with it you need to reckon.

Having no experience of consuming any product and time or money to purchase it, the buyer will use the price as an indicator of the quality of the product or service. Fearing to make an unsuccessful choice, the customer will most likely choose a more expensive product, expecting the highest quality. (Kaura, Durga Prasad, & Sharma, 2015) That is, the consumer is willing to give up a certain amount of money for his peace of mind. Moreover, buyers often simply ignore the cheap goods, without even trying to test its quality. (Wieseke, Alavi, & Habel, 2014) Value for money is often the basis for choosing a product or service. Each consumer seeks to find the optimal combination of these quantities.

As mentioned earlier, when buying products or services, the buyer expects to meet certain needs and the correspondence of perceived quality to what is expected. Also, he compares perceived quality with the price paid. Therefore, the third aspect of the price is its justice or injustice, that is, the degree of equivalence of perceived quality, the value received and the amount of lost money. Kahneman argued that price fairness is a psychological aspect that affects the buyer's reaction to the purchased product or service. Also, consumers are not willing to pay a fixed price for products if they consider it unfair. (Kahneman, Knetsch, & Thaler, 1986) This can occur not only on the first appeal to the product or service of the company but also in the event of a significant increase in the price of products already in use since buyers are accustomed to the previous cost and do not believe in a corresponding improvement in quality. In connection with this, such prices are often perceived as unfair in advance.

If the price does not correspond to the perceived quality, the price is considered unfair by the buyer. In this case, the consumer is disappointed if she, in his opinion, overpaid for a product or service or vice versa. In the first case, the buyer has a feeling of dissatisfaction, because his expectations were not justified. In the second situation, the product or service not only met the expectations of the customer, but surpassed them. Therefore, it can be assumed, that the consumer will not only be satisfied, but very satisfied with the relationship with the company. (Ghezelbash & Khodadadi, 2017)

It is also worth mentioning a few words about sales promotion tools, such as discounts, coupons and other actions related to price reduction. All these measures can attract new customers for the company, but they do not in any way affect the loyalty of customers. Anyone who responds to the offer of the firm at a reduced price will also not ignore the reciprocal offers of competitors. Moreover, "loyal customers are extremely suspicious of reducing prices, because they regard it as an indicator of a decline in the quality of the goods." (Kaura et al., 2015)

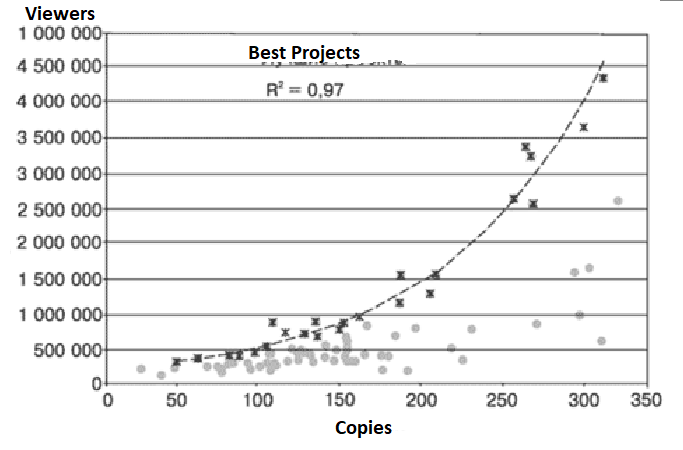
From all of the above, it can be concluded that the price of products has a direct impact on customer satisfaction. This hypothesis is confirmed by many studies related to the price of purchased products. For example, Herrmann, analyzing five major German machine brands and interviewing 246 of their consumers, concluded that the purchase price (its fairness) has a direct impact on customer satisfaction. (Herrmann et al., 2007) At the same time, Consuegra and others conducted a study involving 721 passengers of international airlines. (Martín-Consuegra, Molina, & Esteban, 2007). Their results also prove the validity of the hypothesis that Herrmann put forward.

In view of establishing the relationship between the price of a product or service and customer satisfaction, one can demonstrate the relationship between price, relational and behavioral loyalty of consumers.

*1.5.4 Availability of a Product*

Availability of products is understood as the breadth of the distribution of the company or the degree of coverage of the market. Simply put, will a consumer be able to find a product or ask for a service to the company.

Obviously, the buyer seeks to minimize time spent on making a certain purchase. In this case, the availability of the company's products plays an important role in the likelihood of a purchase. Dymshits has proved this point of view by analyzing statistics on the number of times a movie is viewed depending on the number of copies provided to the cinemas:



**Figure 5.** [**Box Office Sales Revenue**](https://www.multitran.ru/c/m.exe?t=6699924_1_2&s1=%EA%E0%F1%F1%EE%E2%FB%E9%20%F1%E1%EE%F0) **In Russia**

Source: (Dymshits 2007)

The graph clearly shows that with increasing distribution width, the number of sales increases as well.

*1.5.5 Trust*

Moorman, 1993, formulated a definition for trust as ''a willingness to rely on an exchange partner in whom one has confidence.'' (Moorman, Deshpande, и Zaltman 1993) Morgan and Hunt, 1994, found that trust exists “when one party has confidence in an exchange partner's reliability and integrity”. (Morgan и Hunt 1994) Sasser, 1995, argued it is vital for a company to deliver on promises in order to obtain customer satisfaction and retention, and, as a consequence, long-term business profitability. (Jones и Sasser 1995)

Moorman and other researchers defined trust as one of the most important factors for creating relationship commitment and customer loyalty. It was also admitted that trust is a critical variable for both kinds of relationships, which include the logical one and the experiential one. Rai, 2012, also concluded that trust is important for building long-term customer relationship in a rapidly changing environment. Trust is a prior antecedent of customer loyalty. (Rai и Srivastava 2012) In addition to Rai’s explanation of trust, Quinones, 2015, also found trust as a driver of customer behavioral intentions, which are able to lead to customer loyalty. He also found that commitment and trust are the main antecedents to loyalty. (Quinones и Augustine 2015)

**Table 5. Factors affecting customer loyalty**

|  |  |  |  |
| --- | --- | --- | --- |
| # | Factor | Author | Impact on Loyalty |
| 1 | Service and Product Quality | (Fornell и др. 1996)  (Kim и Shim 2017) | * Customer Satisfaction * Favorable behavioral actions * Spread of positive word of mouth |
| 2 | Customer Satisfaction | (Herrmann и др. 2007; Hill и Brierley 2017; Söderlund 1998) | * Subsequent Purchase Intentions * Spread of favorable word-of-mouth * Lower customer’s sensitivity towards competitive offers * Increased market share |
| 3 | Trust | (Moorman, Deshpande, и Zaltman 1993; Morgan и Hunt 1994; Rai и Srivastava 2012) | * Stimulus to additional purchases * Lower negotiations costs * The absence of the customer's concern with the quality of a product * Creation of valuable customer relationships * Creation of long-term relationships with the customer |
| 4 | Commitment | (Morgan и Hunt 1994; Quinones и Augustine 2015) | * Emotional attachment to a product of a particular supplier * Lower chance of switching to another product |
| 5 | Corporate Image | (Tepeci 1999) | * Repeat patronage * Reinforcement of brand image |
| 6 | Service Recovery | (Kumar и Shah 2004; McCain, Jang, и Hu 2005) | * Creating positive customer intensions * Lower switching intentions |
| 7 | Emotions | (Oliver 1997) | * Impact on satisfaction after consumption * Effect on post-purchase behavior:   + Word of mouth   + Repeated visits etc. |
| 8 | Price and Switching Costs | (Gupta, Schivinski, и Brzozowska-Woś 2017; Kagel и Roth 2016; Pigou 2017) | * Customer satisfaction * Additional Purchases * Increasing switching costs |
| 9 | Communication | (Oly Ndubisi и Kok Wah 2005) | * Finding customer preferences * Encouragement for an initial and subsequent purchases |

Source: Author

## 1.6 Importance of customer loyalty and benefits

Over the years international and domestic companies continue to invest a significant amount of sources on educating themselves about customer loyalty. Creating and upgrading customer loyalty on competitive markets depends not only on a product quality, but also on a customer’s experience.

Researchers found various benefits that a particular company is able to achieve by customer loyalty. First, customer loyalty is a convenient way for incorporating the practice of premium pricing. (Wieseke, Alavi, и Habel 2014) In case a customer is loyal, she tends to perceive premium prices more easily.

Secondly, customer loyalty is correlated with the volume of sales. Engaging loyal customers, which stick to the word of mouth promotion leads to boosting the profits by increasing revenues and cash flow. (Fleming и Veltman 2017) In 2004 WBS created a study, which revealed that that five to seven percent improvement of customer defection rate can lead to 75% of additional profits. The research demonstrated that customer acquisition costs are much more higher that those, which come from the repurchasing customers. (Thompson 2014)

In conclusion, in a competitive market loyalty becomes a strong competitive advantage for a company, which builds it within their existing customers. Therefore, service and products providers must regularly evaluate the level of customer loyalty and find the factors, which influence it in order to have strong competitive advantages and a firm long-term strategy.

## 1.7 Customer Loyalty and Profitability

Since the ultimate goal of any corporate initiative is profitability, starting from the 1990s researchers began investigating how customer loyalty can become one the profit drivers for a company. Researchers, such as Heskett, 1990, and Zeithalm, 1991, initiated the discussion of the feasible linkage among such phenomenon as customer satisfaction, its influence on customer loyalty and profitability.

Later, the amercan researcher Nelson, 1992, created an empirical study which proved the hypotheses of former researchers and demonstrated the dependency of profitability on customer loyalty and satisfaction. Nelson analysed 15,000 discharged patients from 51 american hospitals and concluded that up to 27% of variation in the financial performance among the hospitals in the United States was explained by the quality of the services provided by the institutions. (Nelson и др. 1992)

Rust and Zahorik, 1991, also paid great attention to the financial issues related to the customer loyalty and profitability in their work, in which they examined the relationship of customer satisfaction to customer retention in retail banking. They found that the retained customers which remained with the bank due to their satisfaction with the quality of the services where responsible for over 40% of profits of the commercial banks. (Zahorik и Rust 1992)

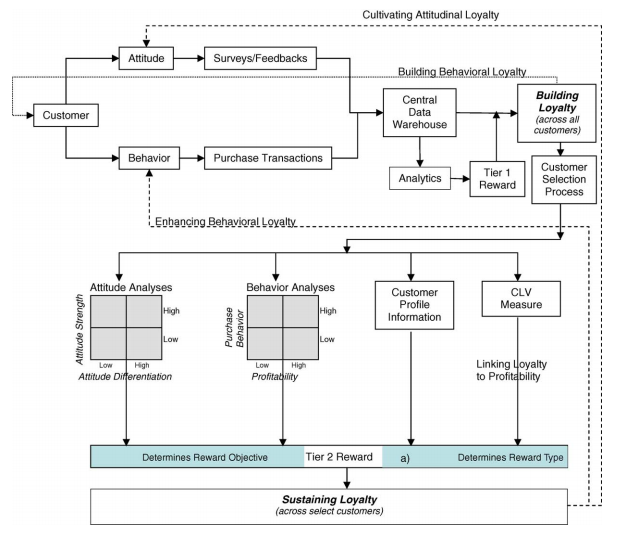
Summarizing the findings made by the researchers by the middle of the 1990s Hallowell, 1996, wrote that loyalty behaviours in various forms and under different factor such as quality of the product and satisfaction increased revenues of an economic entity, lowered costs of acquisition of new customers and, therefore, enhanced the profitability of the companies. (Hallowell 1996)

Furthermore, Hallowell, 1996, collected data from 12,000 retail-banking customers from 59 divisions by running a survey measuring customers’ level of satisfaction with aspects of services provided by the banks. Hallowell ran a regression analysis measuring the relationship between the divisions’ income and customers reported relationship tenure. The results of the analysis proved the main hypothesis of the paper which stated that customer loyalty is related to profitability. He also summarized his findings and the outcomes of previous researchers in the following framework: (Hallowell 1996)

Customer Satisfaction 🡪 Customer Loyalty 🡪 Profitability

By the beginning of the 2000s, V. Kumar and D. Shah, 2004, summarized the findings of made by researchers previously and created their framework of building and sustaining profitable customer loyalty.

**Figure 6. Profitable customer loyalty framework**



Source: (Kumar & Shah 2004)

The framework incorporates three conceptual goals which include:

1. Building behavioral loyalty
2. Cultivating attitudinal loyalty
3. Linking loyalty to profitability

According to the framework provided, companies need to pay great attention to the purchase behavior of the customers and its impact on profitability to the firm. Companies must run low-cost marketing campaign for acquiring customers with low purchasing behavior. Furthermore, the authors argue, that companies need to concentrate on the customers which tend to by high-margin products.

Kumar and Shah also assigned great importance to attitudinal loyalty, which helps companies to create invisible exit barriers for the consumers. Further, the researchers argue that it is vital to focus on profitability while building customer loyalty. A sophisticated approach of measuring customer lifetime value was created in order to analyze the profitability of customer loyalty strategy. (Kumar & Shah 2004)

Further researches have laid the foundation for the new concept of Adeniji, 2015, which provides a new framework for customer loyalty and profitability, enriched by the company’s image.

After analyzing 671 female students and the effect of online and online brand image on their purchasing behavior, Kwon and Sharron, 2009, concluded that customers purchasing behavior might be affected by the ethical and unethical performance of a company. (Kwon и Lennon 2009)

Adeniji and Adenike, 2015, followed the researches made for the previous decades and created a conceptual framework for boosting profitability through customer loyalty.

**Figure 7. Customer Loyalty – Profitability Model**

Corporate image

Physical environment

Corporate identity

Reputation

Service offering

Customer loyalty

Profitability

Source: (Adeniji et al. 2014)

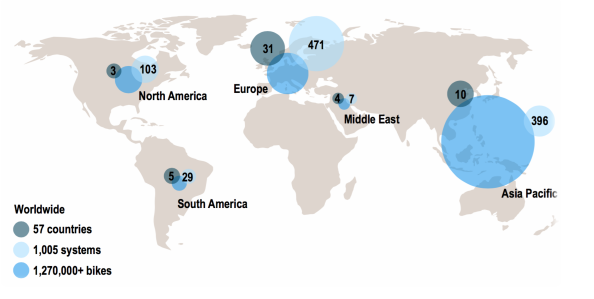
Hypothesized Relationship between Corporate Image and Customer Loyalty & Profitability

## 1.8 Bike-sharing on the global scale

Shaheen asserts that Bikesharing is short-term bicycle access, which provides its users with an environmentally friendly form of public transportation. (Shaheen, Guzman, и Zhang 2010)

Today the market experiences the boom of bike-sharing. More than 1,000 bike sharing programs with around 1,270,000 bikes are operating all around the globe. («Roland Berger Study: Global Market for Bike Sharing Is Growing at 20 Percent per Year» 2018)

**Figure 8. Global bike sharing overview**



Source: («Roland Berger Study: Global Market for Bike Sharing Is Growing at 20 Percent per Year» 2018)

The popularity of bike sharing is not a surprise. It closes the transportation niche for inexpensive short to middle distance ways and fills in the gap between other modes. The table bellow summarizes the benefits of bikes in general on the left, along with advantages of the shared bikes over the private ones on the right.

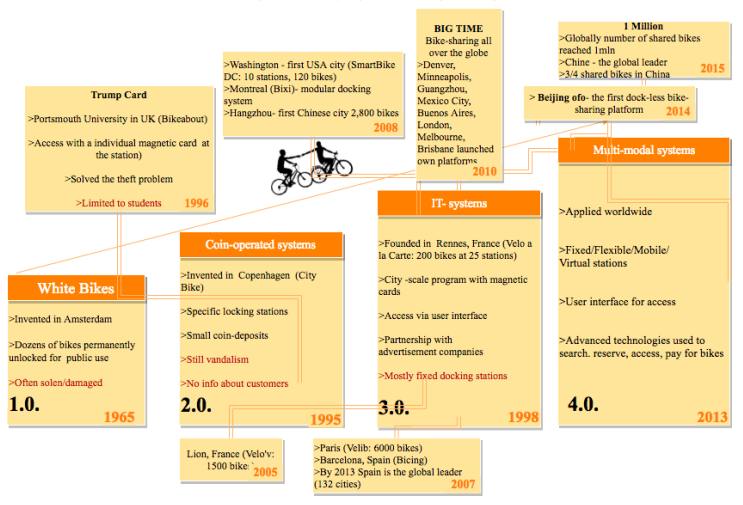
**Table 6 Advantages of bicycles for consumers**

|  |  |
| --- | --- |
| Advantages for customers | |
| Of bicycles | **Of shared bikes** |
| Faster than walking | Do not require space to be stored |
| Cheaper than taking a cab | Easy to combine with other means of transportation |
| More closely meshed than bus/train | Allow redistribution of existing resources |
| Good for the physical health | No problem of stolen personal bikes |
| No carbon emission |  |
| Requires less maintenance than cars |  |

Source: Author

The concept of bike-sharing is certainly not new. It exists since more than 50 years ago. However, it underwent multiple qualitative transformations and resulted into what we have 31 today. The study by Roland Berger calls the modern era “Bike-sharing 4.0” (Roland Berger, 20160. Bellow you can see the development of the concept shortly summarized in one picture.

**Figure 9. Development of the concept of bike sharing**



Source: («Roland Berger Study: Global Market for Bike Sharing Is Growing at 20 Percent per Year» 2018)

As we can see, each stage contained certain constrains that prevented the traditional bikesharing from further development. These constrains were challenged by the inventors of the first dock-less bike-sharing platform.

Based on the weekly active percentage rate, which is defined as the number of active users of an application divided by the total number of active users, Cheetah Data, 2018, created its ranking of the global bike-sharing platforms.

**Table 7. Ranking of global bike sharing platforms**

|  |  |  |
| --- | --- | --- |
| Rank | Platform Name | Weekly Active Percentage Rate |
| 1 | Ofo Overseas Edition | 0.0187% |
| 2 | Mobike | 0.0107% |
| 3 | oBike | 0.0106% |
| 4 | Gobee.bike | 0.0008% |
| 5 | LimeBike | 0.0007% |

Source: («Report on Global Development of Bike-sharing» 2018)

The table depicts that apart from LimeBike, which headquarter is located in the United States, all the usage leaders originate in Asia. Moreover, the leaders of this ranking are Chinese companies. Therefore, it can be concluded that in the global market, the Chinese companies remain the leaders in market share.

*Users*

Bike share services have set off a business boom globally with more than 1,000 companies getting involved in the industry. The large number of users in the Chinese market and the growth potential of overseas markets are the biggest drivers of this boom.

**Figure 10. 2017 – 2018 Scale of global bike share users (in 100m)**

Source: («Report on Global Development of Bike-sharing» 2018)

In 2017, the number of global bike share users reached 227 million. It is predicted that in the next two years, the number of global bike share users will continue to rise and is expected to reach 306 million in 2019.  Quan Jing, executive dean of Cheetah Lab, stated that the global bike-sharing market, especial the overseas markets, still have plenty of room to grow, with Chinese companies as the vital driving force.(«Report on Global Development of Bike-sharing» 2018)

*Funding*

Global bike-sharing services received 4.267 billion U.S. Dollars in venture funding in 2017, of which 4.142 billion U.S. Dollars were raised by Chinese bike-sharing startups.

The huge contrast between the levels of enthusiasm toward bike-sharing from foreign and domestic venture capital investors can be described as ice versus fire.  At the top of the heap of Chinese bike-sharing startups are ofo and Mobike. Ofo raised $866 million in a Series E round of funding led by Alibaba in March 2018, while Mobike has recently been acquired by Meituan-Dianping, a provider of on-demand online services in China. In contrast, the majority of overseas startups are stuck on or before the Series A funding round. The total amount of venture funding for overseas startups has been left in the dust by funding for domestic startups.

## 1.9 Bike sharing in Russia

The bike-sharing phenomenon is relatively new for Russia. It appeared first in 2013 with the launch of VeloBike in Moscow. (*thinkRussia* 2014) Later on, a company with a similar business model was launched in Saint Petersburg, and is currently operating under the brand “Velogorod”.

Overall, two major companies – VeloBike and Velogorod – currently represent the Russian bike-sharing industry and, therefore, its market size can be estimated by the revenue produced by both companies, which totaled in more than RUR301m.

Both companies operate at relatively low margins. Their Revenue and Net profit Margins are depicted in the figures below:

**Figure 11. Revenue, RURk & Net Profit Margin, % for Velogorod**

Source: («ООО „ВЕЛОГОРОД“» .)

**Figure 12. Revenue, RURk & Net Profit Margin, % for Velobike**

Source: («АО „СИТИБАЙК“»)

As it is seen on the figures above, both companies operate at fluctuating and relatively low profit margins. Futhermore, the currently Russian bike sharing companies operate at 30 – 50 percent of their capacity, provig that there is still room for the increase in revenues. ("Ведомости", 2017)

*Competition*

Both companies do not compete against each other due to the locations they operate in. However, the companies both compete with local bike rental services for those customers, which use for occasional purposes, such as tourists or random citizens on the weekends. Although both Velobike and Velogorod place their bikes-stations on multiple locations, the providers require additional effort from customers prior to the first trip, which include an installation of an application and verification procedures, which might take up to one hour, while the local bike rental service centers are taking a deposit and a service fee and the procedure takes no longer that 15 minutes on average.

*Business Model*

The business model of both representatives if the Russian bikesharing are pretty similar to the global ones. The companies operate station-based bicycles, which users can unlock using a mobile application. The overall cost structure is depicted in the following table:

**Table 9. Bike sharing expenses**

|  |  |
| --- | --- |
| Personnel for planning and implementing the system | -financial and legal advisers  -specialists in marketing and advertising |
| Operations | -mechanics for repairs |
| Equipment | - bicycles, parking lots, terminals, stations  - tools for bicycle repair  - spare parts |
| Marketing and Advertising | - design of advertising materials  - website with regular updates  - attraction of the media |
| PPE | - the public space required for stations |

Source: (Cesbron 2015)

Operating at full capacity, variable costs in bike sharing systems with station-based bicycles take no more than 30 percent of overall costs. (Cesbron 2015)

Therefore, the total cost structure of a bike-sharing company, which operates at full capacity, is depicted as following:

**Figure 13. Bike sharing expenses breakdown**

Total Costs (100%)

Fixed Costs (70%)

Variable Costs (30%)

G&A

Station Area Rent

Backoffice System

Station and bikes maintenance

Source: Author

Out of the graph depicted above we can derive the following equation, which will be useful for answering the question, regarding the effect of increase in customer loyalty on the overall profit of a bike-sharing company:

**Formula 1. Bike sharing profit calculation**

Source: Author

*Threat of new entrants*

Bikesharing companies also face the threat of new entrants which consider starting their operations in the Russian market.

Recently, the first and largest dockless bike-sharing provider Ofo announced its expansion into the Russian market. (*Vedomosti* 2017) Ofo, as well as the other Chinese bike-sharing companies implement the practice of charging their customers deposits of $30 to $40 therefore prior to the user’s first ride. Since the Russian bike-sharing platforms do not require the consumer deposits yet, it is important to identify if the Russian bike-sharing companies can implement some of the features of their feasible competitor.

The second largest bikes sharing company – Mobike – is also considering entering the Russian market. The company is already operating in 13 countries and, according to Delovoy Peterburg, 2018, is ready to launch its new fleet in Saint Petersburg. (*Delovoy Peterburg* 2018)

*Users*

Currently, Velogorod has 13,676 registered users. According to Vedomosti, 2017, the company had some issues with the supporting equipment. Therefore by the middle of July, Velikorod's clients had reduced the number of trips almost twofold compared to the same period last year - up to 16,000. («„Велогород“ в Петербурге может получить 68,6 млн рублей из бюджета» 2017) Currently on its webpage, Velogorod states that it operates 600 bicycles on 96 stations for 98,365 customers. («Velogorod» 2018)

Velobike in Moscow operates in 380 stations and its fleet consists of over 4,300 bicycles. The company’s website also states that in 2017 the average number of rentings was 400,000 per month. («Velobike» 2018)

## 1.10 Comparison of the Offering of Russian and Global Bikesharing Platforms

The following part compares the Russian and global leaders in bikesharing. Among the global players the following companies were chosen: Ofo China, Mobike China, oBike Singapore and LimeBike US. Three of them originated in Asia (China and Singapore) and one of them was launched in the United States. Since non of this platforms represents the Western European market, Velib was taken also for the analysis. Velib is one of the oldest and most known bikesharing companies in Europe and currently operates in Europe. Since the Russian market is represented by only two companies, both of them are taken into analysis.

The criteria for the analysis include registration and verification procedures, bikes configuration, number of bikes per one million people in a city, pricing scheme and fines.

*Ofo China*

The registration requires a deposit fee of RMB200. The verification process also requires a picture of citizen ID. First two months users can rent the bikes for free with no payment for rides. After two months the application requires RMB1 for each ride.

Bicicles of Ofo are station-free. That means that customers can take a bike wherever they find one, open a locker with a scanned QR-code and then leave the bike in any convenient place. The application follows users via GPS.

In Beijing the company operates around 60,000 bicycles. That means that if Beijing population consists of 21.71 million people, there are around 2,764 bicycles in service for one million people in Beijing. («About Ofo» 2018; «Beijing Population 2018» 2018)

Due to similarities among cultures in Asia, bike share companies can use the experience in China for reference when they launch their businesses in other Asian countries and regions.  The majority of countries in Asia has a long standing tradition of riding bikes but has yet to regulate the bike-sharing industry.  In Singapore, which is popular with bike-sharing companies, local governments offer support for the overall development of bike-sharing industry by signing agreements with operators and focusing on developing regulations to resolve issues such as parking.  In addition, there is an enormous population in the Asian markets, providing favorable conditions for the bike-sharing industry. Many companies fiercely compete for the Asian markets. («Report on Global Development of Bike-sharing» 2018)

*Mobike China*

The business model of Mobike China is similar to that one of Ofo. The company also operates station-free bikes. Unlike Ofo, the company requires RMB300 as a deposit and offers 1 month free subscription to its services. After that, the users can choose among payment per ride or purchase of a monthly subscription service. One ride fee can vary upon a bicycle type. Overall there are two types of bicycles: standard bikes and VIP bikes, which cost RMB1 and RMB2 respectively. A monthly subscription fee costs around RMB20, however, the platform usually offers 50 to 90 per cent discount on their bikes.

In Beijing the company currently operates around 45,000 bicycles, consequently, over 2,073 bicycles per one million people. («About Mobike» 2018)

Since Mobike China operates in the same region as Ofo China, the consumers profile is similar to the described above in the Ofo’s profile.

*oBike*

oBike is a Singaporean station-free bikesharing company. Therefore, business model is similar to the previous ones. The company requires a deposit of SGD 50 prior to user’s first ride. It also creates a wallet which collects your money. Users can pay for each ride UGS 0.5 using their virtual oBike wallet.

In Singapore the platform operates around 14,000 bicycles. Since currently 5.6 million people live in Singapore, there are over 2,500 oBike bicycles per one million of population in Singapore.

*LimeBike US*

LimeBike is an American bikesharing platform which started to operate two years ago in the United States. The bike are also station-free. One ride costs USD 1 per 30 minutes. Students get a 50% discount. A month subscription costs USD 29.95 and includes UDS 100 credits. However, the platform does not require a deposit. Users need only their IDs to register prior to the first ride.

In New York Limebike operates over 15,000 bicycles. With the population of 8,5 million people, there are 1,765 bicycles per one million people in New York City.(«About LimeBike» 2018; *Worldometers* 2018)

In all foreign countries, the U.S. places the most restrictions on the bike-sharing sector. To establish a bike-share program in the U.S., the business must communicate with the government and obtain a permit. Many cities in the U.S. have been cautious in dealings with dockless bike share companies. New York City recently asked for public input to explore the feasibility of a dockless bike-sharing program, which will not be allowed to operate in any place where Citi Bike already exists.  In responding to this type of policies, U.S.’s LimeBike started to explore the idea of a virtual parking lot.

*Velib*

Velib is a French provider of station-based bicycles. The company offers a flexible subscription plan according to user’s intentions. They include three types V-libre, V-plus and V-plus. The first one is for occasional users, offers bikes for EUR 1 per 30 minutes. The second one is for frequent users and is also flexible. Users can estimate their expected rides per month and choose a plan suitable for them. V-plus is also flexible and includes not only traditional bikes but also e-bikes. Prices also vary upon users’ expected consumptions. Customers do not need to attached a copy of their IDs prior to the first ride, however they need to provide their valid phone number and credit card information.

Currently Velib operates over 3,000 bicycles in Paris and its estimated number of bikes per one million people in Paris is 1,339. («About Velib» 2018; *Worldometers* 2018)

The Paris Mayor convened a meeting with bike-share operators on how to handle the abandoned and damaged bike-share bikes.  So far, several Paris government officials have publicly stated that the government will institute rules and regulations that standardize bike share operations.  For example, discussions of collecting fees for permits are ongoing. The Paris government is expecting to issue new bike-sharing regulations at the beginning of the year. («Report on Global Development of Bike-sharing» 2018)

*Velogorod*

Velogorod operates in Saint Petersburg. The company has a flexible subscription plan. Prior to the ride a customer can choose a plan, pay the amount of money needed and than use the bike according to the amount of money paid. Moreover, a user can choose a monthly or seasonal subscription plan.

Currently Velogorod operates 600 bicycles in Saint Petersburg. The estimates number of bikes available per one million people is 115. («Velogorod» 2018; *Worldometers* 2018)

*Velobike*

The company is located in Moscow. The price of the subscription per day is 150 rubles on average, and 1200 rubles for the entire season. The bicycle rental station, usually, can be found on the map or in the mobile application. Before you go to the bike station, you can check on the map, whether it works and how many free bicycles there are on it. If it is necessary to complete the rental, the bicycle must be returned to the cycling station. In the case when the station is empty, you can not get or take a bicycle at this station. This type of bike rental is designed for short trips around the city. The cost of one trip lasting 30 minutes on average is 60 rubles. In case the trip lasts longer than 30 minutes, the user must pay extra for each additional hour from 40 to 200 rubles. In this regard, persons who take a bicycle for hire, are forced to move between stations. The distance between the destination and the nearest station can be quite large, which limits the route of travel.

The estimated number of bikes per one million people is 333. («Velobike» 2018; *Worldometers* 2018)

The following table provides the outcomes of the comparison

**Table 10. Comparison of the Russian and global bike sharing platforms**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Platform | Registration Procedure | Subscription Plan | Bikes Configuration | # of bikes per 1m people (city) | Market Conditions |
| Ofo China | ID verification, phone number, deposit | First 2 months for free, RMB 1 per ride, not flexible | Dockless | 2,764 (Beijing) | Favourable, not regulated, traditionally accepted |
| Mobike China | ID verification, phone number, deposit | First month for free, RMB 1 or 2, not flexible | Dockless | 2,073 (Beijing) | Favourable, not regulated, traditionally accepted |
| oBike | ID verification, phone number, deposit | Not flexible, SGD 0.5 per 30 minutes | Dockless | 2,500 (Singapore) | Favourable, not regulated, traditionally accepted |
| LimeBike | Phone number | Not flexible, USD 1 per 30 minutes, Monthly ticket | Dockless | 1,765 (New York City) | Not favourable, regulated |
| Velib | Phone number | Flexible, various subscription plans | Station-based | 1,339 (Paris) | Not favourable, regulations are under discussion, large number of damaged bikes |
| Velogorod | Phone number | Flexible, various subscription plans | Station-based | 115 (Saint Petersburg) | Not favourable, regulations are under discussion, large number of damaged bikes, lack of infrastructure |
| Velobike | Phone number | Flexible, various subscription plans | Station-based | 333 (Moscow) | Not favourable, regulations are under discussion, large number of damaged bikes, lack of infrastructure |

Source: Author

Following the comparison table, it can be concluded that the European bikes haring systems, including the Russian ones, operate station-based bikes. Moreover, the table shows that Russian cities have least number of bicycles per one million users. The unfavorable conditions can be explained by the lack of infrastructure and low bicycle culture in Russia.

## 1.11 Framework for the Current Research

As it is stated in the next chapter, the variable costs of bikes haring companies are usually less than 10 percent of overall costs. That means that for the simplicity of the model, variable costs will not be counted in the model.

As for the profit, customers value will be considered as the profit needed to be improved in the current problem. CLV is a more superior metric as compared to other traditional measures discussed earlier such as RFM, Share of Purchase (orWallet), and Past Customer Value (PCV) (Reinartz & Kumar, 2000). None of these measures is forward looking and do not focus on profitability of the customer (with the exception of PCV that focuses on past profits). CLV can ensure profitability without compromising loyalty. Also, being a forward looking metric, marketers can use the metric for pro-active marketing interventions (versus traditional reactive marketing interventions).

As mentioned further in the analysis of the business model, bike sharing platforms operate with over 90 percent of fixed costs. Therefore, for the sake of simplicity, the current model neglects the effect of variable cost. Overall cost side is also neglected by the model, since it is considered, that the increased customer loyalty will have the impact on revenue and, in turn, profit will be driven from the revenue side.

The following model was created to estimate the economic effect of increased customer loyalty

Service & Product Quality

Communication

Prices

Physical Environment

Revenue

Costs (predominantly fixed)

Customer Satisfaction

Profit

Behavioral Customer Loyalty

measured in

Frequency of Rides

**Figure 14. Research Model: Adjusted Adeniji’s CL-Profit Model**

Source: Author

According to the model, the following hypothesis are tested in the current research:

H1: Customer overall satisfaction is positively affected by the loyalty determinants

H2: The frequency of usage is positively affected by the overall customer satisfaction

H3: Improvement in each determinants of customer loyalty will improve the customer loyalty measured in frequency of purchases

The model does not consider attitudinal loyalty due to the novelty of bike sharing phenomenon. The research methodology will further explain the reason why attitudinal loyalty was not reflected by the model.

# Chapter 2. Analysis of customer loyalty to the Russian bike sharing

## 2.1 Research Method

The following research targets at the factors which affect clients’ loyalty in bike-sharing and evaluation their level of satisfaction of customers. In order to complete the task, the current work utilizes the quantitative research since this type of research is the most common in similar types of studies. Moreover, such kind of research evaluates the hypotheses and comes up with the results, which can further accept or reject the null hypothesis. A great deal of attention will be devoted to methodology and statistical ratios in the current research.

As it is a commonplace in the similar researches to use the surveys, the online survey will be the main method of the current work. Online surveys have many advantages over other way of public surveys. These benefits include:

1. Convenience in gathering data from a large pool of respondents
2. Privacy allows to get more accurate data without biases
3. Online surveys can be easily updated
4. Online surveys provide on time information and gather the data automatically upon request in any stage of the survey
5. Error proof measures also will increase the reliability of the data gathered

The distribution of the research will be conducted via the official accounts of Velogorod and Citybike on VK. These accounts have over 4,000 participants, which will definitely have both types of respondents: current and potential users. The users will be approached via mass mailing. Moreover, an URL will be placed on the wall of each official account.

The survey was launched on Google Survey Platform.

## 2.2 Hypotheses Statement and the Survey Questions

Current research aims to prove the following hypotheses:

H1: Customer overall satisfaction is positively affected with the loyalty determinants

H2: The frequency of usage is positively affected with overall customer satisfaction

H3: Improvement in

1. cycling infrastructure
2. quality of the bikes
3. billing plan
4. proximity or affordability of the bikesharing stations

… will lead to the increase in the number of rides

To prove the hypotheses, a survey on customer loyalty was distributed among the users of Russian bike sharing. The survey was created exactly according to the hypothesis tested. The survey is available in the Appendix 1.

The analysis of the data received from the survey takes two steps.

On the first stage, customers demographic data and preferences were analyzed in order to create customer profile.

The second stage includes testing the hypotheses in order to prove or disprove them. For the first hypothesis simple linear and a multiple regression analysis were performed in order to prove the hypothesis that there is positive relationship between customer loyalty determinants and satisfaction.

Further, the research also runs a simple linear regression in order to prove the hypothesis that frequency of usage is correlated with the overall satisfaction of the customers.

To prove the third hypothesis, the research runs a paired T-test. The reason for using a paired T-test is that the samples are equal.

For running the test, Microsoft Excel Data Analysis plugin was used, allowing to make necessary econometric models and regressions. Based on the analysis of these models, conclusions were drawn about the consistency or inconsistency of the hypotheses advanced.

At the last stage, a conclusion was made about the consistency of the developed model for creating and maintaining customer loyalty to bike sharing. In addition, during the analysis of the data obtained, the strengths and weaknesses of the Russian bike sharing were identified.

## 2.3 Results of the research and interpretation of the findings

*2.3.1 Customers Profile*

Overall 181 current and former users of the Russian bikesharing took part in the research. However, since the survey aimed to analyze only those respondents, who have already tried bikesharing in Russia at least once, the total number of respondents was reduced 168. The age distribution of respondents is shown on the chart below:

**Figure 15. Age Distribution Among Respondents**

Source: Author

As can be seen from the chart above, most of the customers are under 30. The greatest portion of users of Russian bike sharing is between 26 and 30 years. They account for 35 percent of the total respondents.

The next chart represents the gender distribution among the Russian bike sharing users: Figure

**Figure 16. Gender Distribution Among Respondents**

Source: Author

The most users of bike sharing platforms in Russia are female. They account for 61 percent of the total number of respondents.

The next pie chart shows the distribution of bike sharing users among the two cities, which are Saint Petersburg and Moscow: Figure

**Figure 17. Distribution of Respondents between two Cities**

Source: Author

The pie chart shows that users from Saint Petersburg account for 51 percent of respondents

The last three figures represent the Russian customers intentions in using bike sharing and the major reason why some of the customers have chosen to stop using bike sharing: Figures

**Figure 18. Users' Intentions in Using Bikesharing**

Source: Author

As it is shown on the bar chart, most respondents use bike sharing systems as a mean of transportation to school or work place. They account for 42 percent of the respondents. 19 percent of respondents accept bike sharing services for recreation purposes. Least number of respondents admit that they use shared bikes for shopping, fitness and cultural activities.

**Figure 19. Are you still using bike sharing services in Russia?**

Source: Author

**Figure 20. Reasons for Leaving Bike sharing**

Source: Author

As it is shown on the pie chart, the 43 percent of the respondents have stopped using bike sharing services in Russia. The major reason for leaving bike sharing services is respondents’ lack of satisfaction with the cycling infractructure. 31 percent of those respondents who stopped using bike sharing in Russia point it as the main reason for stopping using bike sharing. Under the most frequently called reasons for stopping using bike sharing are long destinations to the bike sharing stations, quality of the bikes and purchase of a vehicle. 56 percent of respondents na,e them as the major reasons that hold them from using bike sharing in Russia.

*2.3.2 Testing the Hypotheses*

H1: Customer overall satisfaction is positively affected by the loyalty determinants

A series of multiple regression analysis was run in order to find the relationship between the Y variable “Customer overall satisfaction” and multiple X variables which include “Satisfaction with the cycling infrastructure”, “Satisfaction with the quality of the bikes provided”, “Satisfaction with the prices”, “Simplicity of the billing scheme”, “Satisfaction with the proximity of the bike sharing stations”.

The results of the first analysis are depicted in the table below:

**Table 11. Multiple regression analysis outputs for the first hypothesis**



Source: Author

After inspection of the P-values for each of the predictive variables, it can be concluded that the variables “Satisfaction with the prices”, “Simplicity of the billing scheme” do not have a statistical significance in predicting the “Overall Satisfaction”, because their P-values are greater than 0.05.

**Table 12. Multiple regression analysis outputs for the first hypothesis (re-run)**



Source: Author

After running the multiple regression the second time and inspecting the P-value for each of the predictive variables, it can be seen that all X-variables are statistically significant in predicting the dependent variable “Overall Satisfaction”.

The results of the analysis prove the hypothesis that the relationship between the dependent variable “Overall Satisfaction” and the determinants of customer loyalty, which are “Satisfaction with the cycling infrastructure”, “Satisfaction with the quality of the bikes provided”, and “Satisfaction with the proximity of the bike sharing stations” is positive.

Therefore, we can partly confirm the hypothesis, which states that overall customer satisfaction is positively affected by the loyalty determinants.

H2: The frequency of usage has positive relationship with overall customer satisfaction

**Table 13. Regression analysis outputs for the second hypothesis**



Source: Author

The P-value for the predictive variable is less than 0.05. The hypothesis is proved since the coefficient value is 0.21.

H3: Improvement in each determinants of customer loyalty will improve the customer loyalty measured in frequency of purchases

H3a: Improvement in cycling infrastructure leads to increased number of rides

**Table 14. T-test outputs for the third hypothesis**



Source: Author

The paired T-test analysis shows that there is a significant difference between the means of two samples. The t Stat value is way above the t critical two-tail value. The difference between the two means is around 85 percent. The results prove the hypothesis.

H3b: Improvement in quality of the bikes leads to increased number of rides

**Table 15. T-test outputs for the third hypothesis**



Source: Author

The paired T-test analysis shows that there is a significant difference between the means of two samples. The t Stat value is way above the t critical two-tail value. The difference between the two means is around 85 percent. The results prove the hypothesis.

H3c: Improvement in billing plan leads to increased number of rides

**Table 16. T-test outputs for the third hypothesis**



Source: Author

The paired T-test analysis shows that there is a significant difference between the means of two samples. The t Stat value is way above the t critical two-tail value. The difference between the two means is around 40 percent. The results prove the hypothesis.

H3d: Improvement in proximity or affordability of the bike sharing stations leads to increased number of rides

**Table 17. T-test outputs for the third hypothesis**



Source: Author

The paired T-test analysis shows that there is a significant difference between the means of two samples. The t Stat value is way above the t critical two-tail value. The difference between the two means is around 101 percent. The results prove the hypothesis.

## 2.4 Conclusions

The current research aimed at answering two basic questions. The first question was to discover the key factors which affect the customers loyalty in the Russian bike sharing. Following the analysis performed in the previous sections, there are 4 key factors which affect customers loyalty in terms of frequency of rides. They include cycling infrastructure, quality of shared bikes, proximity of the cycling stations, and the convenience of the billing plans.

Improvement in one of these loyalty determinants can lead to the increased loyalty in terms of frequency of rides. In terms of numbers, improvement of one or more loyalty determinants will lead to 40 to 100 percent increase in the average number of rides for those, who have already tried or is currently using bike sharing in Russia.

Regarding the profit side, the exact effect on profit in numbers is difficult to estimate due to the lack of open data on all the users of the Russian bike sharing. However, knowing that over 70 percent of costs in bike sharing are fixed and that bike sharing in Russia is working at around 35 – 50 percent of its capacity, the increased number of rides will have a positive impact on profit.

## 2.5 Theoretical Contribution

The study explores the link between customer loyalty and profitability.

Theoretical implications include:

Based on careful literature review the definitions of customer loyalty were classified and a new definition of customer loyalty suitable for the bike sharing market in Russia was created.

Furthermore, based on the thorough research the current work elaborates the model of customer loyalty influence on profitability in the Russian bike sharing.

Finally, the model was empirically tested and the link between customer loyalty and profitability was found.

## 2.6 Limitations

There are few following research limitations:

1. The research is primarily concentrated on the behavioral loyalty and does not consider the attitudinal one, since the second type of loyalty might be associated with bicycles as a product and a mean of transportation in general. However, the work implies that with the development of bike sharing in Russia, the attitudinal loyalty might be investigated in order to find other factors which might affect customer loyalty and profitability consequently.
2. The research is limited to two cities – Moscow and Saint Petersburg –, and therefore represents the customers of only two Russian cities. There is also room for research on customer loyalty and profitability in other locations
3. Finally, the research does not elaborate the differences in customer loyalty between bike sharing users in Moscow and Saint Petersburg, since one the main objectives of the research was to define the key factors which affect customer loyalty for the Russian bike sharing market in general. Therefore, there is still room for the research in finding the differences between these two locations.

## 

## 2.7 Managerial Application

The result of the current research can be applied by the companies which are currently operating in the bike sharing market in Russia, such as Velogorod and Velobike and by those companies which are considering entering the Russian market, such as Ofo International and Mobike.

Although the companies might be aware of the key determinants which affect the loyalty of the users to bike sharing, the information on a potential impact on the average number of rides per customer might be of a significant importance for the companies.

Regarding the infrastructure improvement, the results of the research state that the average number of rides taken by bike sharing users can be increased by over 80 percent. Although the bike sharing companies cannot directly influence the improvement of the cycling infrastructure, they need to work on cooperation with governmental and nongovernmental organizations, which might have a direct effect on the infrastructure development. They might also assist the nongovernmental organizations which act for the improvement of cycling infrastructure. Therefore, it can also be concluded that the effective strategies in this direction might be a subject of further research.

The improvement of the quality of the bicycles can also significantly affect the behavioral loyalty of bike sharing users. Potential entrants and current players should consider improvements in such area. The current research did not clarify particular problems associated with the quality of the bikes. However, knowing the impact on the frequency of rides, current players might consider developing research in this area.

Simplification of billing plans also have a significant effect on customers loyalty measured in the frequency of rides. Minor improvements in this area can lead to greater number of rides with insignificant changes in costs.

The proximity of bike sharing stations has the greatest effect on customers loyalty to bike sharing in Russia. Respondents of the survey point that they would use shared bikes more frequently if the bike sharing stations were closer to their locations. Since bike sharing companies are operating at less than 50 percent of their capacity as it was mentioned earlier in this research, decrease in size of the stations and increase in the number of stations and in the covered areas might be one of the feasible options for improving the frequency of rides and can be stated as a subject for the further research.

Improvement in one or several factors of customers loyalty will positively affect profits of the bike sharing companies from the revenue side, since, as it was earlier mentioned in the business model description, the current companies operate at low and fluctuating margins with high share of fixed costs (70% of overall costs, if operating at full capacity).

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# Appendix 1

Survey on Customer Satisfaction with The Russian Bike Sharing

Dear bike sharer,

You participate in the survey on customer loyalty to the Russian bike sharing. Your answers will help us analyze the quality of services provided and develop methods to increase loyalty to the Russian bike sharing services. You will be asked to answer 19 questions. The survey will take no more than 7 minutes of your time.

The questionnaire is anonymous and all the information you share with us is of a confidential nature and will not be passed on to the third parties.

Thank you for your participation.

Let’s get started!

1. Please indicate your permanent location
   1. Moscow
   2. Saint Petersburg
2. Have you ever tried riding shared bicycles in Russia?
   1. Yes
   2. No
3. Are you currently using shared bicycle services?
   1. Yes
   2. No
4. If you answered no if the previous question, please state your reason:
   1. high prices
   2. proximity
   3. infrastructure
   4. bikes quality
   5. purchased my own bike
   6. complex billing plan
5. Which factor would mostly affect your decision to use shared bikes?
   1. Price
   2. Bikes quality
   3. Travel distance
   4. Infrastructure
   5. Proximity of stations
   6. Billing plans
   7. Weather conditions
6. Please state your average number of rides per month
   * + Open question
7. How much time does your average ride take?
   * + Open question
8. Please indicate your level of satisfaction with the shared bike services (from 1 to 10, where 1 is least satisfied and 10 is most satisfied)
9. Please state your level of satisfaction with the following criteria (from 1 to 10, where 1 is least satisfied and 10 is most satisfied)
   1. Price
   2. Bikes quality
   3. Travel distance
   4. Infrastructure
   5. Proximity of stations
   6. Billing plans
10. If there were cycling routes on all the way of your expected travel path, how many rides per month would you do? (from May to the end of October)
    * + Open question
11. If all the problems regarding the quality of the shared bikes were solved, how many rides per month would you do? (from May to the end of October)
    * + Open question
12. If you could manage your billing plan in the real time using the application, how many rides per month would you do? (from May to the end of October)
    * + Open question
13. Please state the approximate longest distance from your permanent location to the shared bikes station:
    * + Open question
14. According to your answer in the question before, how many rides per month would you do? (from May to the end of October)
    * + Open question
15. Do you use bicycles in the winter time?
    1. Yes
    2. No
16. If there is an anti-skid coating on the bicycle wheels, what average number of bike trips per month would you make in the winter season?
    * + Open question
17. Please indicate your age
    1. 18-25
    2. 26-30
    3. 31-35
    4. 36-40
    5. 41-45
    6. 46-50
    7. 51-55
    8. 56-60
    9. 60-65
    10. 66 and above
18. Please indicate your gender
    1. Male
    2. Female
19. Please indicate your level of education:
    1. High school
    2. Professional colledge
    3. Bachelor
    4. Masters

Thank you for your answers.