Perceived Quality and Satisfaction Regarding Private Labels in Romanian Retail

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Abstract. *This article addresses the perception of various customers regarding the private labels of retail companies. Therefore, the scope of this paper is to illustrate and determine whether specific factors such as the opinion, satisfaction and enjoyment of such labels, influence each other and also the perception of the customer, regardless if the customer is aware or not about it. Since these factors also influence the purchasing decision of potential customers, it is interesting to find out the current state of those, and identify any potential for improvement. This paper uses a statistic linear model, that is based on the inference statistic as well as the descriptive statistics. Therefore, tests like the Lagrange multiplier test, known also as the White test, the Durbin Watson test and the Jarque Bera test, were conducted to check the quality and the validity of the model. The results are interesting due to the fact that every time 2 factors were analysed, one test was failed. This does not necessarily mean that the model is unfounded or not valid. This signifies that there might be a better model that suits the behavior of the analysed factors and can possibly predict better their outcome.*

Keywords: retail, perception, satisfaction, opinion, correlation

Introduction

The retail sector is a vital component of the modern and global economy, which plays a huge role in the economic growth of a country. As a result, is important to observe and understand the complexity of the retail sector with its particularities. Therefore, the retail sector should not be seen only as a two-step process, consisting of the inflow of goods in the subsidiaries of a company and the outgoing of goods to the customer. To be accurate, it is mandatory to look at this topic from a broader perspective in which several parties play an important role in the whole supply chain and ultimately contribute to the success of the retail company. Here, the entire logistic chain, including warehouses, transportation trucks, all the planning behind the flow of goods from the supplier to the warehouse and from the warehouse to the stores, the negotiations between the buyers and suppliers, all the processing of the goods until they reach the shelf, etc., needs to be taken into account.

This article will approach the marketing in the retail branch, while we analyse the overall domain and different measures taken by the top players that have the purpose of increasing customer awareness, increasing customer loyalty and generally promoting various products.

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Literature review

The customer preferences and the customer behaviour are important aspects, that need to be analysed, and properly identified by the retail chains. Those two factors can be seen as key elements for the success of the retail business (Khan et al, 2021). What happens when companies don't analyse those preferences and the general behaviour of its customers, is that, in the long run, they won't be able to remain competitive long term, due to the fact that customers will migrate to the competition where they have their need fully satisfied (Cuc et al, 2022).

Retail companies apply different techniques in order to maximize their profits. Studies conducted on the Canadian market, show that most supermarkets have large shopping carts (CanadianBugetBinder, 2019). This can be seen as a sales strategy, due to the fact that the client is inclined to buy more products because he has more space in his shopping cart. This practice can be seen in Romania as well, because we can see many customers with quite full shopping carts in the stores. In addition, the aspect of dimensions of the shopping cart can be remarked in some Romanian supermarkets. The sampling campaigns within the stores is also addressed. These have, on one side, a strong marketing role and, on the other side, a sales role due to the fact that the clients are inclined to buy one or more pieces of that specific good after they tasted it. It is also important to mention that through this sampling method, the brand awareness for the supplier and also for the supermarket is promoted (Dabija & Babut, 2019). Another type which can be seen as both a marketing and sales strategy, is the fact that a lot of retail companies give customers different discount coupons for different goods or food categories. The marketing strategy here is to generate customer awareness for those promoted goods, or food categories, while also increase the sales volume of those. One of the easiest and most used methods to generate awareness is the use of advertising signs, which can be found inside and also outside the supermarket (CanadianBugetBinder, 2019). There are companies that have had for over a relatively long period of time a large billboard in front of their stores and headquarters, promoting either a service that they offer, or diverse products. It basically skips the waiting time in which someone scans the products at those cash registers. Another interesting aspect are the shopping galleries located at the entrance of the store, regarding the fact that the supermarkets have some sort of Lounges in their building. Some articles also mention some specific sales tactics that are tailored for the retail sector like the Buy 1 – Get one tactic. Those tactics should increase the sales volume of the companies and also generate brand awareness in order to remain top of mind of its customers (CanadianBugetBinder, 2019). The customer therefore tends to go in the stores of the company that uses this tactic, in order not to miss this promotion although he might not have a specific need or urgent desire for it. This strategy seems to be successful due to the fact that the retail companies have developed it into similar variants like Buy 2 – Get one or Buy 1 – and the second product is at half price and other variations. Interesting to note is the fact that this strategy works really good in the retail sector is because it is still used today and is highly efficient (Pelau & Stamule, 2011). The last point, what we would like to address from this article, is the planned positioning of the products on the shelves of the store. Due to the fact that those shelves are large and high, and due to the tendency of the customers to look in front of them, the companies put the more expensive products in the middle of the shelves. The assumption here is that the customer is in a hurry and that he wishes to buy all the groceries fast and wants to quickly check off his shopping list. Therefore if the customer is in a rush, he won't have time to search for similar or maybe cheaper products from other brands and will choose one of the products usually located in the middle of the shelf. The use of this tactic is not limited to expensive products, that have a more inelastic demand than their cheaper alternatives, but it can be also used for the private label goods or different goods that are really hard to sell, due to the fact that maybe there is little interest in such products.

Sometimes retail companies emphasize specific production practices in both the manufacturing and harvesting process of those products to which we can refer to as so called Premium Private Labels (Cordon et al, 2005). Those practices tend to raise the prices of some private label products, but retail companies still try to price them below or at least the roughly equally as well-known brands. Interesting is the fact that there are cases when the retail companies don't want to be directly associated with some specific goods and therefore don't appear, at first sight, on the packaging of those products (Nogales et al, 2005). A possible explanation for this is the fact that companies want to show a much bigger diversity in products than they have, while also keeping an overview in the production process and costs of those products. Therefore, people can identify such products as belonging to the private label, only by a mere logo somewhere on the back side of the packaging and by the mandatory information regarding the supplier and manufacturer, also provided on the back of the packaging.

A crucial aspect of the retail sector is the fact that there is a really strong seasonality (Damron et al, 2016). This seasonality refers, on one hand, to a certain rather atypical trend in the customer wishes, expectation, needs and on the other hand, to the customer specific behaviour with regard to different foods and products (Medina et al, 2004). For example, one can think of Christmas. Immediately some specific products and meals come to mind, from sweets to different cakes like panettone or different meat dishes) that are only offered in this period (Ligon, 1997). This poses a relatively big challenge for the big retail groups, because they have to predict this seasonality well in order to get the optimal supply of products from the suppliers (Istudor & Pelau, 2011). In the worst case scenario, if they underestimate the seasonality, they can end up with a shortage of goods in the branches and, therefore not be able to meet customer needs. However, this does not mean that it is better to overestimate the seasonality, as they may end up with excess goods in the branches that they cannot sell outside the specific period because there is no demand for them. This leads to losses for the company.

It can therefore be understood that there are various indirect measures and business practices, that are not only used on a local level, but at an international level and which act as an incentive mechanism to promote the sale of goods, especially food products.

Methodology

In this article we will analyze the collected data from an online survey, which had as purpose to identify correlations and effects related to consumers' perceptions towards retail private labels. The sample of the survey consists of a convenience sample of 210 people from the urban as well as the rural regions, that have different ages, different levels of education, income and, accordingly, different jobs or professional status. Therefore it can be said that the responses show a certain degree of heterogeneity, which should lead to a more realistic analyze of the data It must be said that this analysis is not to be extrapolated to the whole population of the country, due to the fact that the sample is too small for this and therefore it becomes less significant for the whole population of Romania. However we can get a fairly good impression regarding the tendencies and the customer behaviour of the respondents, impression that under specific circumstances can be extrapolated or derived to a certain extent. For the analysis, I will use the descriptive as well as the inference statistics by describing the answers of the respondents and by testing some various parameters in order to try to figure some connections and correlations. Therefore the following methods will be applied: Lagrange multiplier test for testing the Heteroscedasticity or Homoscedasticity of the sample, Durbin-Watson test for identifying the autocorrelation of the data and a Jarque Bera test in order to test the standard distribution of the sample

Around 51% of all responses were submitted from a young population between the ages of 18 and 25, while the second largest category, around 18.8%, of additions consists of a population between the ages of 26 and 29. Therefore the fact that almost 71% of the responses were submitted by a very young population should mean, at least in theory, that all the correlations and reasons found in this article apply to the younger generations. Around 13.5% of all responses consist of an age group between 30 and 39 years, 10.1% of an age group from 40 to 49 years, 4.3% consists of an age group from 50 to 65 years and 1% are people over 65 years old.

74% of the responses came from women, while the remaining 25.5% came from men, with the exception of 0.5% who did not wish to disclose their identity. This means that most of the tendencies that will be discovered later apply mostly towards women. If we also consider the previous large proportion of young responses, it can be said that these tendencies would apply especially to the younger women.

From an educational point of view, the sample consists of a highly educated population due to the fact that around 84.2% of respondents have completed at least a Bachelor's degree, 37.3% have a Master's degree and 0.5% have even completed a doctorate.

Regarding the number of people in a household, the majority, 66.1%, of the sample consists of households that have at more people, while the remaining 33.9% regarded as individuals within a household.

More than 73% of the respondents analysed have a full-time job with 40 working hours per week or even more. 6.7% are freelancers, and 1% are people with a part-time job, less than 40 hours per week. The remaining 34.5% do not have a job at the time of the analysis.

Even when speaking about income, there are some differences to consider, due to the fact that around 66% of the respondents have an income roughly equal to or higher than the romanian average wage of approximately 4.000 Lei, while the rest of the sample has a lower wage than that. Interesting to note is the fact that within those 66% of the sample there is a proportional distribution. 22.4% of them have incomes between 3,500 and 4,999 lei, 20% between 5,000 and 6,000 lei and 23.3% over 6,000 lei

Results and discussions

The first question the participants were asked was regarding their opinion regarding a private label of a retail company in Romania by rating it on a scale of 1 to 5, with 1 being the worst and 5 being the best. A graphical representation of the responses can be seen in the next figure.

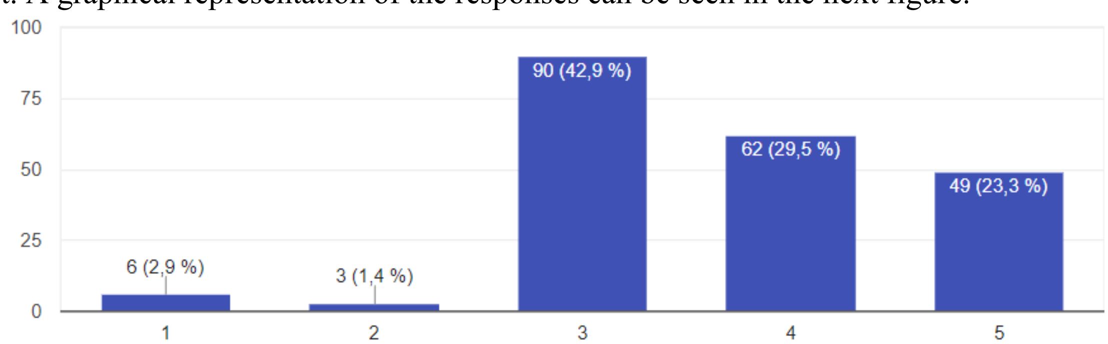

Figure 1. Opinion regarding a retail private label

Source: Authors' own research results/contribution.

Firstly it can be noted that overall the majority of the respondents have a positive opinion regarding the private label, due to the fact that 90 respondents chose a rating value of 3. Next, it can be seen that 62 people, which corresponds to approximately 30% of the sample, gave a better rating, namely 4. According to the responses, there are also 49 people, approximately 23% of the sample, who gave the highest rating to the private label. These can be regarded as so called fans of the private label and therefore they can be considered as loyal customers of a specific retail company. Only a few respondents gave a small rating, meaning that they don't value this specific brand very much. 6 respondents gave the smallest rating of 1, while 3 respondents gave the second smallest rating of 2. A few possible reasons for those small rating could be the fact that these persons had a bad experience with the products of this label, or just the fact that they associate these products with poor quality because of the relatively cheap price. Despite this, the overall trend is positive considering that 95% of the respondents gave a rating over 3. This can also be proven mathematically by calculating the median value as well as the arithmetic mean of the answers. The median value is 4, while the arithmetic mean is 3.69. Due to the fact that both indicators point in the same direction, it can be assumed that there is a positive opinion regarding the private label.

We can also analyse this question with the next one and reach further conclusions. The next question addresses satisfaction with the quality of private label products. Here too, the respondents were able to explain their answer using the same scale from 1 to 5.

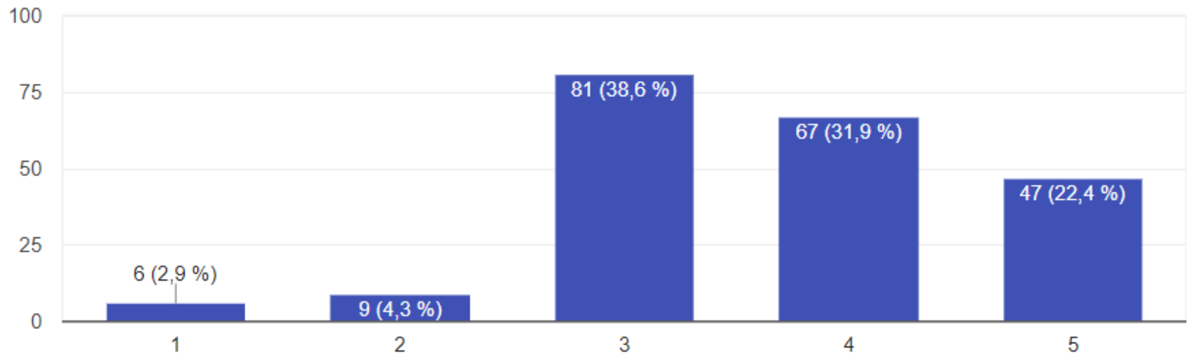

Figure 2. Satisfaction with the quality of the private label

Source: Authors' own research results/contribution.

It can be noticed that the majority of the respondents are satisfied with the quality of the private label due to the fact that approximately 39% of the respondents choose the rating of 3, approximately 32% gave 2, and approximately 22,5% gave the best rating of 5. In other words, this means that again the majority of the respondents, around 93%, have a positive impression with regard to the quality. One must say that, in general, quality is a subjective indicator, but as long as most people are of the same opinion, it can be said that the private label products are of good quality. Only 15 people were of the opinion that these products have a lower quality, and out of these 15 people, 6 were of the opinion that these products have a poor quality and therefore gave 1 on the scale, and 9 were of the opinion that these products have a lower quality and therefore gave a 2 on the scale. It is tough to find a cause for the last 2 mentioned groups, due to the subjectivity of the quality. This could be about specific individual cases where the perception of the quality of the products was negatively affected.

Here too can be seen graphically, that there is a positive trend because the larger columns are either at or above the value of 3. This is also mathematically proven by the fact that the mean value is 3.67 and the median value is 4. The interesting thing is the fact that these values are very similar to the ones from the previous question, which might indicate that there is a correlation between them. In order to see this, the Pearson correlation coefficient was calculated, and in theory if the resulted value is approaching the value of 1, that means that there is a strong correlation, if it approaches 0, then there is no correlation. The value of tis indicator is 0.78, which indicates a relatively strong correlation between these 2 questions. This means that, to some extent, it can be said that one factor is the cause of the other. In our case, this would mean that quality is the cause of the opinion regarding the private label products.

In order to try to create a linear regression model between the answers to these 2 questions, we first need to perform a couple of tests to determine whether a linear regression model is suitable or not. To do this, we will take the answers to the last question as the independent variable x, and the answers to the question before that as the dependent variable y. This means, at least theoretically, that the quality of the products also influences the opinion of the respondents in a linear way.

If we test the Heteroscedasticity or Homoscedasticity with the Lagrange multiplier test (LM Test) we need to define the 2 Hypothesis that we will test. Let's say that the first Hypothesis called H0 shows that the data are homoscedastic and the other Hypothesis called H1 shows that the data are homoscedastic. When calculating the LM value, we get the value of 3,37. The Chi square value is 5.99, because we have taken into account a confidence level of 95% and we have 2 independent variables xi and xi^2. Since the test value is smaller than the theoretical value of Chi square, we must accept H0, which states that the residuals are homoscedastic. Therefore, it can be concluded that the variation of the error terms is constant. In simpler terms, this means that the differences between the observations and the predicted values of the model are constant. This would provide a further reason to test this linear model further.

If we test the autocorrelation of the data, we can carry out a Durbin-Watson test, but firstly we have to define the 2 hypotheses H0 and H1 again like earlier. Let's suppose that the first Hypothesis H0 shows that there is an autocorrelation between the datasets, and the second Hypothesis H1 shows that there is no autocorrelation between the data sets. By carrying out the Durbin-Watson test we get a value of 1.88. There is no direct measure, such as the Chi square, with which to compare the DB test, but there is an interval from 0 to 4 in which to interpret the value. A value closer to 0 would indicate a positive autocorrelation of the residuals, while a value closer to 4 would indicate a negative autocorrelation. Within this interval from 0 to 4, a further interval from 1.49 to 2.51 can be defined, which shows that the residuals tend towards independence. A value of 2 would mean perfect independence of the residuals. In our case the value of 1.88 is in between the last mentioned interval. Therefore, it can be said that there is a non-perfect independence of the residuals. Thus, H0 must be rejected and H1 is should be accepted, which states that there is no autocorrelation between the residuals. This means that the differences between the observations and the predictions of the model cannot be predicted by a specific factor. In other words, this means that those differences are random. This is a valuable argument to further test the model.

Finally we will test the normal distribution of the datasets, we discover that the data is not normally distributed. In order to prove this, a Jarque Bera test was carried out. As before the 2 hypothesis needed to be defined, and therefore the first one H0 was assumed to represent the normal distribution of the datasets, and the second hypothesis H1 that was assumed to represent the fact that the dataset is not normally distributed. The value of the test was 678,66, which is significantly above the Chi square of 5.99. This means that we should reject H0 and accept H1, which states that the data is not normally distributed. This is not very surprising, since we could also see from the graphs that the data is not be normally distributed. Furthermore, this means, at least in theory, that this model is not 100% suited for this dataset. Thus, it would not necessarily be wrong to continue testing a linear regression model, but there would be better models for it, which have a higher efficiency and predictability.

For the next question, the respondents were asked about their enjoyment of the private label brand. The respondents were able to select their score on a scale of 1 to 5, with 1 being the worst score and 5 being the best score. The results can be observed graphically in the figure below.

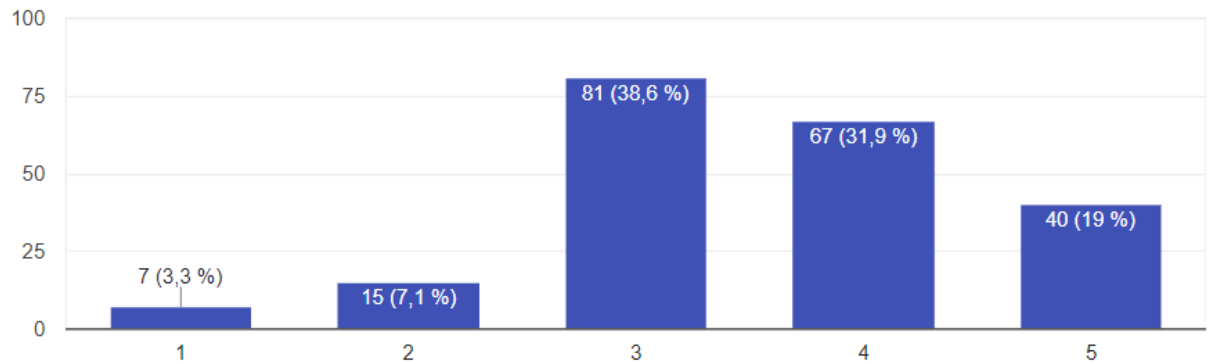

Figure 3. Enjoyment of a private label brand

Source: Authors' own research results/contribution.

The same trend, which was seen at the last 2 questions, can be observed also here. The majority of respondents selected high values, while only a small proportion of the sample selected low values. 81 respondents, roughly 39% of the sample, gave an above-average rating of 3. 67 respondents, around 32% of the sample, gave a good rating of 4 and 40 respondents, roughly 19%, gave a very good rating of 5. This means that 188 of the respondents, about 90%, have a positive tendency regarding towards enjoying the private label brand. The remaining 10% of the sample, or 22 respondents, gave small ratings, including 7 people who gave the worst rating of 1 and the remaining 15 people who gave a slightly negative rating of 2. Possible reasons for this could be similar to the previous questions, namely that these people had a bad experience with the private label products, or that they simply don't like it.

Here too, the median value and the arithmetic mean can be calculated and it can be seen that they are similar, because the median value is 4 and the arithmetic mean is 3.56. This also explains, from a mathematical point of view, the positive trend that can be observed in the answers to this question.

Assuming that we want to build a multiple regression model with the previous answers of the last 3 questions, we first have to see if such a model is suitable at all. Suppose we take the answers to the question regarding the customers' enjoyment and satisfaction with the quality of the brand as the independent variables x1 and x2 and the opinion as the dependent variable y.

By testing the Heteroscedasticity or Homoscedasticity with the Lagrange multiplier test (LM Test) we need again to define the 2 hypothesis. Let the first hypothesis H0 be the homoscedasticity and the second hypothesis H1 the heteroscedasticity of the datasets. By conducting the test, we get a value of 2.89. Due to the fact that a multiple regression model was formed, we need to take more degrees of freedom as in the last 2 questions., namely 5 degrees of freedom for the variables x1, x2, x1^2, x2^2, x1*x2. The Chi square is therefore 11.07, which is higher than the calculated LM value. This means that H0 is assumed, which states that the data are homoscedastic. Thus, the variation of the residuals is constant.

As far as the autocorrelation is concerned, the Durbin-Watson test is used again. After the calculations, a value of 1.930 is obtained, which is within the interval of 1.49 and 2.51. Therefore, this means that there is a non-perfect independence of the residuals In other words, this means that there is no autocorrelation between the residuals, so they are not correlated.

It is also necessary to analyse the multicollinearity of the datasets to determine whether there is a strong correlation between the independent variables. In our case, there is a strong correlation between the 2 independent variables x1 and x2 of about 82%. Furthermore, a correlation between the two independent variables and the dependent variable can also be seen, in that satisfaction and enjoyment correlated with the opinion of the respondents by around 78%, respectively, 74%. This makes it difficult to define the effect of each independent variable on the dependent variable.

However, what can be understood from this analysis is that there is an interdependence between these 3 questions. This means that both satisfaction and enjoyment have a direct and strong influence on the opinion of the respondents. This is also one of the reasons why big retail companies, attach great importance to their own-brand products and are constantly trying to introduce new products and improve existing ones. In general, by looking at those answers of those questions, it can be said that the sample is more than satisfied with the private label products, which can be seen as a reason for a company's high sales and market share.

Conclusion

Overall, it can be said that people are pleased with private labels of retail companies. Of course there are many factors that influence someone's opinion, factors which were not mentioned in this paper, due to the fact that the focus was specifically on these three factors: opinion, satisfaction with the quality and enjoyment. To some extent, those results can be considered as some sort of trends. However, one big limitation of this paper is the size of the sample. Since there is a relatively small sample of 210 people, it isn't significantly strong enough to extrapolate the results to the entire population or the country. This shows only the tendency of the perception of some customers. Also, due to the fact that the majority of the respondents were young women, the results show specifically their opinion.

As a suggestion to further improve the value of these factors, it is advisable to generate more value for the customer by using different marketing instruments in order to focus on customer attraction, retention and loyalty such as tailored promotions or more aggressive promotions Another way of raising these values is by further investing into the product development to try to minimize the production cost, so that the overall price of the product can drop but not at the expense of quality.

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