EFFECT OF TEMPORARY CLOSURE OF A HYPERMARKET ON THE SHOPPING BEHAVIOR - A HUNGARIAN EXAMPLE

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ABSTRACT

After 15-20 years in operation large area retail units must be generally refurbished. In this paper we want to introduce our new research findings on the changes of shopping behavior during a refurbishing period of a Hungarian Interspar hypermarket (located in county seat Tatabánya, Hungary, 60 km far from the capital in Western direction). In our research we want to describe how shopping behavior of Interspar shoppers changed in terms of shopping frequency, spendings, location of shopping, preferred retail unit, role of distance, assortment, prices, etc. We also introduce the reactions of local competitors in the altered market environment. Our research findings are based on an online questionnaire (N=153). The research was conducted in October 2017 when Interspar hypermarket (originally opened in 2001) was temporarily closed because of constructional works. We foremost focus on the marketing (shopping behavioral) and regional (spatial) aspects of the phenomenon. Our findings can help to understand the shopping behavior of people in time of turmoil of local retail supply (such as the closure of an important local retail unit) and can help the more efficient and effective work of retailers.

KEY WORDS

Hypermarket closure. Shopping behavior. Shop preference.

JEL CLASSIFICATION

L81.

INTRODUCTION

Large are retail units – shopping centers and hypermarkets – must be regularly refurbished not only for technical reasons, but it is desirable to renew them to maintain and increase their competitiveness.

After reviewing the existing international literature on the topic, using the example of a Hungarian Interspar hypermarket, we describe the impacts of a temporary closure of a large

area retail unit on shopping behavior. In our research we want to find out in what ways and to what extent the closure changed shopping behavior, foremost in terms of shop preference.

In our study we describe which shops and what type of retail outlets buyers chose to do their shopping and how shopping frequency in the individual outlets changed when one of the most important retail complexes of the town was temporarily closed down.

1 THEORETICAL BACKGROUND

A wide range of international literature is available on the topic of site selection and development of large area retail units, but studies which deal with the reconstruction and refurbishment of these complexes (shopping centers and hypermarkets) are scarce. There is little resource in spite of the fact that well codified literature on methodologies and strategies in spatial marketing is available (Cliquet, 2013).

First we want to clarify that hypermarkets, which we examine in our study, are a special sub-type of shopping centers, as several researchers point out. Thus further on we consider findings on the refurbishment of shopping centers published in international literature relevant for hypermarkets as well (Dawson, 1985; Guy, 1998).

Anselmsson distinguishes seven factors of the success of shopping centers (Access, Retail-mix, Atmosphere, Service, Refreshments, Promotion and Entertainment), among which Refreshment – contributing to great shopping experience – takes a privileged position (Anselmsson, 2016).

Studies dealing with refurbishing and altering shopping centers mainly emphasize the increased customer satisfaction impact of it. Refurbishment works greatly contribute to the improvement of the shopping experience, thus they help maintain the centers' successfulness (Joshi et al., 2015).

Other papers examine the impact of refurbishment on shopping value, customer satisfaction and spendings (Chebat et al., 2014), but in our literature-research activities we could not find any work which deals with the "channeling effect" of temporary closures of shopping centers, or more precisely which examine the changes in the market situation of the competitors of the closed center or the changes in shopping behavior.

2 OBJECTIVE AND METHODOLOGY

The objective of our research was to discover how temporary closure (due to reconstruction works) of the examined hypermarket in Tatabánya, Hungary affected shopping behavior, especially shop preference and why (in which areas) respondents miss most the closed center.

To reveal the changed shop-preference of former Interspar-customers, we conducted an online questionnaire in October 2017 when the examined Interspar store had been closed for two months already. By that time shoppers were likely to have formed their new routines which aimed to replace the hypermarket for the period of its closure. To our online questionnaire created and published in Google Forms 153 people responded. Sampling was random, but the sample is not representative. The results were processed with IBM SPSS statistical analysis software and Microsoft Excel spreadsheet, for the visual representation of the data MapInfo 12 GIS software and MS Excel were used.

Our analysis is mainly based on descriptive statistics; the relationship between the data concerning changes in shop preference (purchase frequencies, spendings at Interspar while it was open and during its temporary closure) a chi-square test was used to test the significance of the differences.

3 RESULTS AND DISCUSSION

Before giving a detailed explanation of our research results, we find it important to introduce main actors in the FMCG sector in the town (Tatabánya, Komárom-Esztergom county) where the examined retail unit is located. As it can be seen on Figure 1, in the retail sector of the town supermarkets (Spar), discount chains (Aldi, Penny Market, Lidl), hypermarkets (Tesco, Interspar) and a shopping center (Vértes Center) can also be found.

The most important point in the course of our research was to find out which type of shops became more preferred and in this altered shop preference which factors (proximity – visits to the nearest store became more frequent – or retail unit type – Tesco will replace Interspar or another factor) played a determining role.
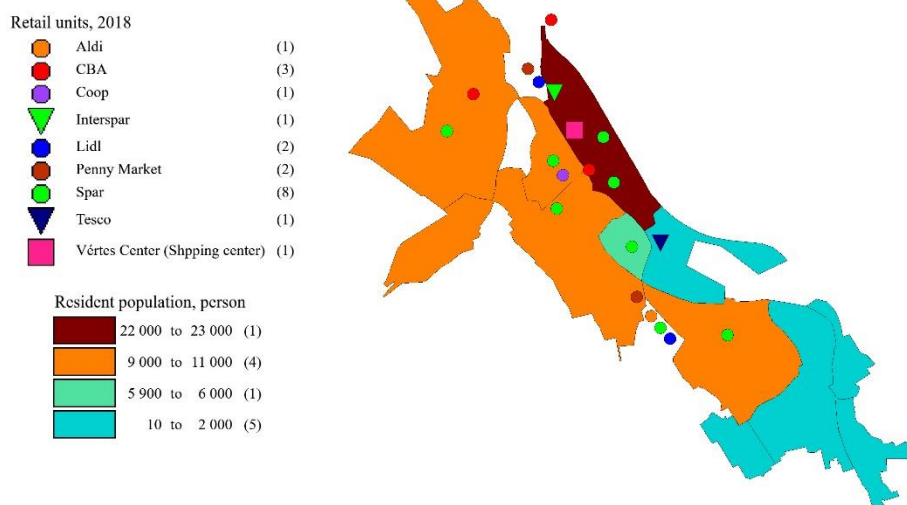
Figure 1 Spatial distribution of more important FMCG-retailers in county seat Tatabánya

Source: Own edition with MapInfo 12.

Respondents in our research – even though due to the characteristics of our research method it was not possible to take a representative sample – we can state that the composition of the sample we used largely corresponds with the composition of Interspar shoppers in terms of gender, age, occupation and place of residence (Table 1) (see previous researches KOVÁCS, 2004).

Table 1 Demographical characteristics of the sample, %

Gender	Male	29,4
	Female	70,6
Age	under 25 years	26,8
	25-34 years	27,5
	35-44 years	30,7
	45-54 years	10,5
	55-64 years	2,6
	over 65 years	2,0
School degree	primary school	3,9
	vocational school	7,2
	secondary school	48,4
	BA/BSc diploma	22,2
	MA/MSc diploma	18,3
Place of residence	Tatabánya	69,9
	other settlement	30,1

Source: Own research, 2017.

In the focus of our research was the replacement of Interspar hypermarket in terms of purchase frequency and spendings. During our research we prepared an analysis for all the competitors (Tesco, Penny Market, Lidl, Aldi, CBA, Coop, Spar supermarkets, corner shops), but due to limitation in space we only introduce some of our most important findings.

First we wanted to find out how shopping frequency and spending changed in Tesco, a hypermarket with a similar function, product range and floor size, among the former shoppers of Interspar (Graph 1). As you can see, the proportion of buyers did not change, but buyers visited more frequently and spend more money in the single open hypermarket of the town.
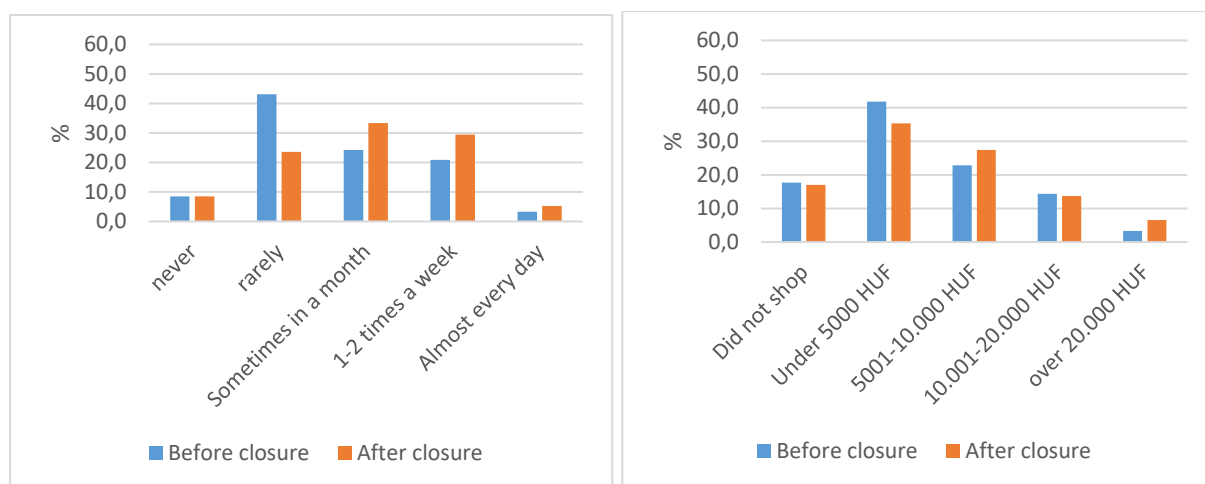
Graph 1 Change in shopping frequency and spendings in Tesco
Source: Own research 2017

The differences are significant, as it can be seen in Table 2 and Table 3. Table 2 shows the test results of shopping frequency data of Tesco before and after the closure of Interspar. With Table 3 we illustrate the test results of differences in spending in Tesco before and after the closure of Interspar.

Table 2 Chi-Square tests results on shopping frequency in Tesco before and after the closure of Interspar

| Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	170,466	16	,000
Likelihood Ratio	144,929	16	,000
Linear-by-Linear Association	88,758	1	,000
N of Valid Cases	153		

Source: Own research, 2017.

Table 3 Chi-Square tests results on shopping frequency in Tesco before and after the closure of Interspar

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	194,214	16	,000
Likelihood Ratio	139,132	16	,000
Linear-by-Linear Association	80,355	1	,000
N of Valid Cases	153		

Source: Own research, 2017.

Then we analyzed Lidl discount store, which is located closest to Interspar, according to the same aspects. Here we can state the same as in case of Tesco. The questioned Interspar buyers did their shopping in Lidle more often and spent more money there (Graph 2). The proportion of people not doing their shopping there did not change here either.
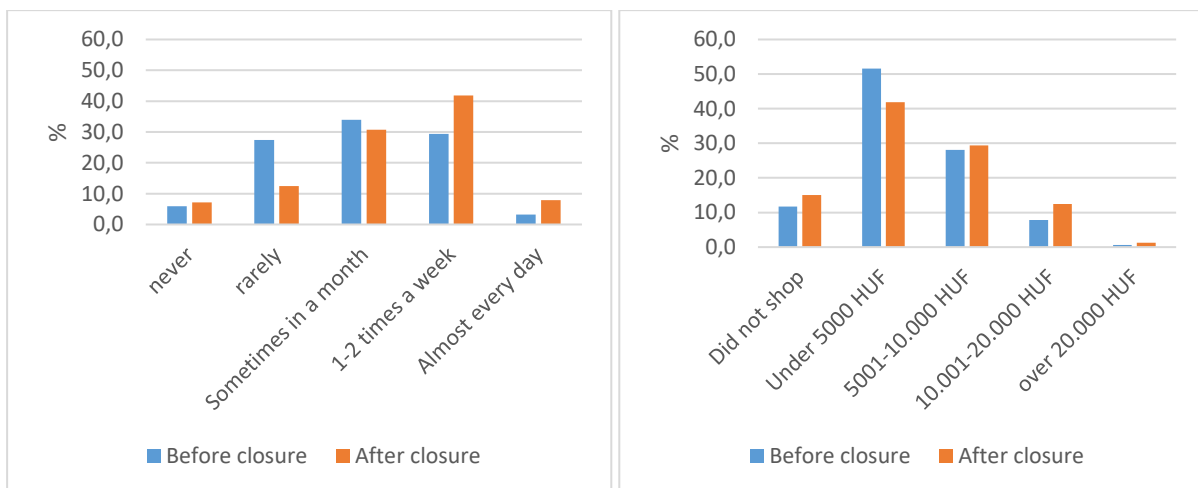
Graph 2 Change in shopping frequency and spendings in Lidl
Source: Own research 2017.

Similar to the previous tests, statistically significant differences can be depicted in shopping frequencies (Table 3) and spendings (Table 4) in the case of Lidl discount store.

Table 4 Chi-Square tests results on shopping frequency in Lidl before and after the closure of Interspar

| Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	191,139	16	,000
Likelihood Ratio	161,609	16	,000
Linear-by-Linear Association	91,559	1	,000
N of Valid Cases	153		

Source: Own research 2017

Table 5 Chi-Square tests results on shopping frequency in Lidl before and after the closure of Interspar

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	254,194	16	,000
Likelihood Ratio	160,066	16	,000
Linear-by-Linear Association	93,069	1	,000
N of Valid Cases	153		

Source: Own research 2017.

Finally we wanted to find out whether Spar itself could win on the closure of their own hypermarket, i.e. what proportion of former Interspar buyers were channeled to any of the numerous Spar supermarkets scattered all over the town (Graph 3). Our research results show that shopping frequency and spendings increased here too.
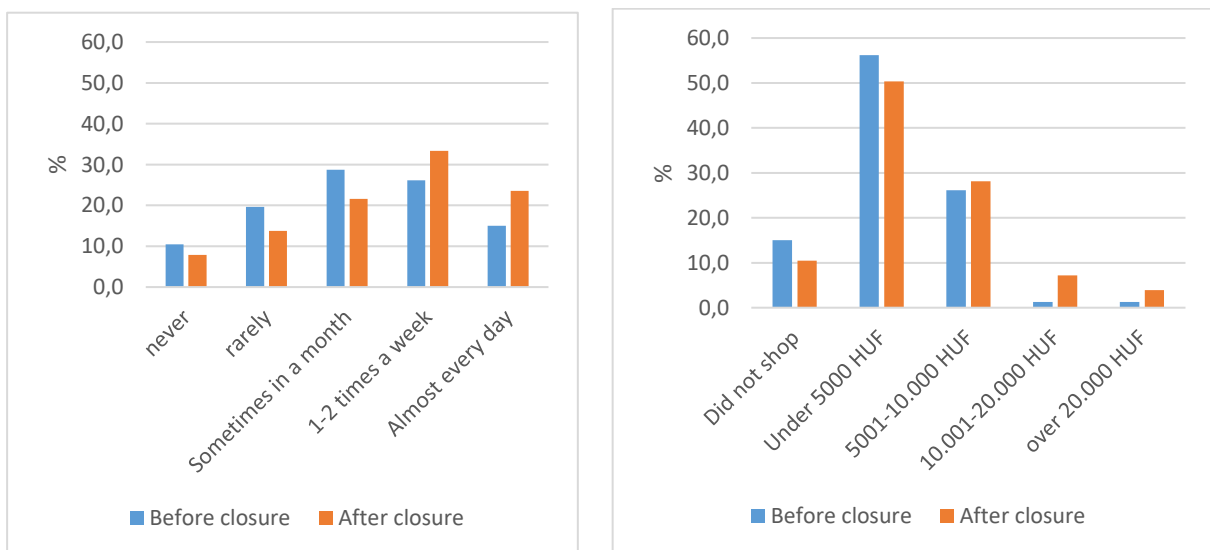
Graph 3 Change in shopping frequency and spendings in Spar supermarkets

Source: Own research 2017.

Just like in the case of Tesco and Lidl, significant differences can be identified here both in the change of shopping frequency (Table 6) and spendings (Table 7).

Table 6 Chi-Square tests results on shopping frequency in Spar supermarkets before and after the closure of Interspar

| Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	162,477	16	,000
Likelihood Ratio	139,227	16	,000
Linear-by-Linear Association	73,058	1	,000
N of Valid Cases	153		

Source: Own research 2017.

Table 7 Chi-Square tests results on shopping frequency in Spar supermarkets before and after closure of Interspar

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	159,258	16	,000
Likelihood Ratio	104,481	16	,000
Linear-by-Linear Association	56,416	1	,000
N of Valid Cases	153		

Source: Own research 2017.

Our research showed similar results concerning other retail outlets (Aldi, Penny Market, Coop, CBA, corner shops). In general, we can state that by closing this large area retail outlet all other market players could experience increase in turnover and in the number of buyers. Although the size of the sample did not allow deeper analysis of the data, still, we can say that channeling buyers and traffic to other units "was beneficial" for all concerned: turnover and the number of buyers increased in Tesco hypermarket as well as in supermarkets, discount stores and corner shops.

In the last part of our questionnaire we wanted to find out from which aspects, in what factors the buyers lack Interspar. As Graph 4 shows, people questioned missed the hypermarket in the period of its closure, and experienced increased shopping time as well as more inconveniences during their shopping.
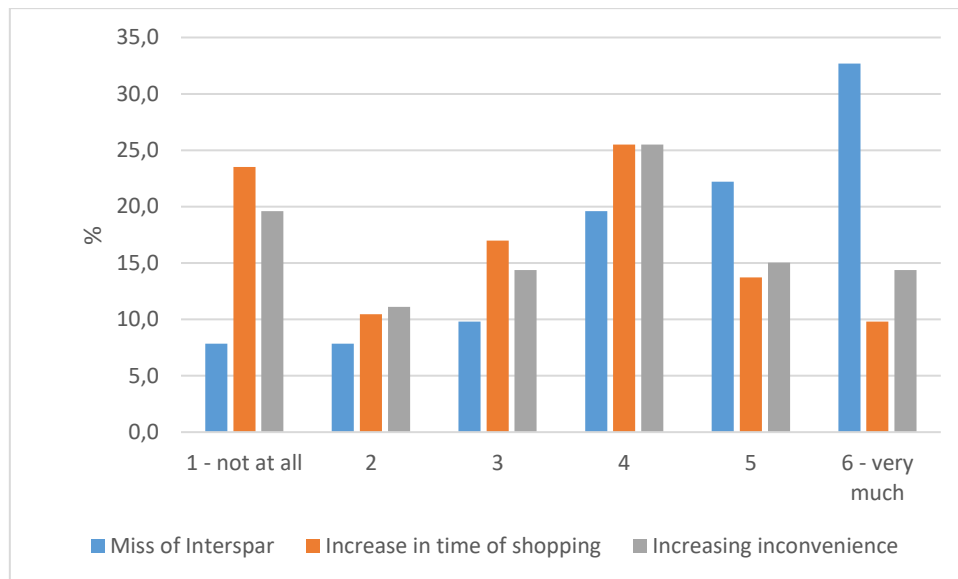
Graph 4 Opinions related to the closed Interspar hypermarket (1-6 Likert scale values)
Source: Own research 2017.

Finally we asked respondents about the possibility of their return to Interspar when it is open again (Graph 5). The majority of the people who filled in the questionnaire said that they are very much likely (values 4-5) or surely (6) would return to Interspar, but what is more interesting for us is that over 10% of the respondents said they would not go back to the hypermarket.
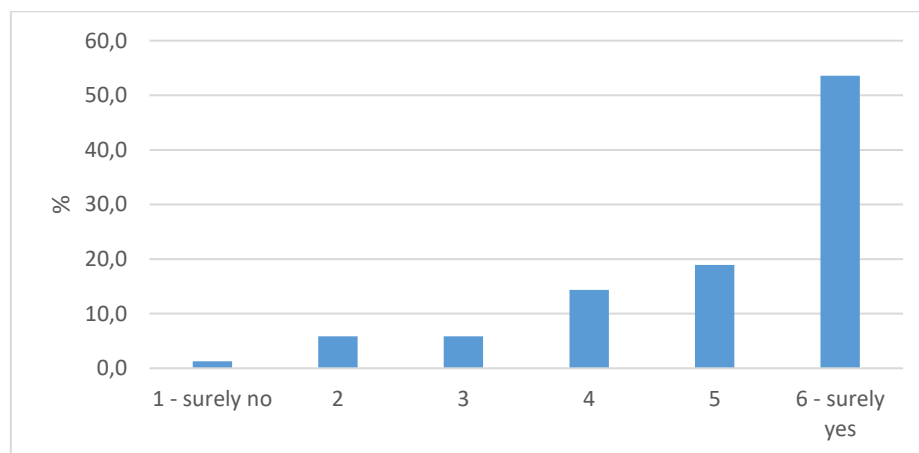
Graph 5 Opinions on the future return to the Interspar (1-6 Likert scale values)
Source: Own research 2017

CONCLUSION

To conclude, we can summarize the finding of our researches concerning a temporary closure of a large area retail unit in the following statements:

1. Closing the shopping center had a positive effect on the operation of all FMCG retailers in Tatabánya, visits to the stores became more frequent, spendings increased. This was justified by statistical tests (chi-square test) on shopping frequencies and spendings data during the closure period of Interspar. In every case there was a significant difference between the results during the period of closure and the period of opening of Interspar both in terms of shopping frequency and spendings.

2. Our next important finding – closely connected to the previous result – is that there were no preferences for the buyers, either for the location (the closest) or for the type (Tesco hypermarket) of the retail outlet they chose instead of Interspar.

3. Another important result is that the place of residence (Tatabánya vs. neighboring settlements) did not affect the customers' choice either. Chi-square tests did not show significant differences in spending and shopping frequency between shoppers living in Tatabánya and shoppers living in the broader catchment area.

4. Our most important finding is that – based on the preliminary answers of the respondents – the temporary closure of Interspar is expected to result in a loss of 10% of its buyers. To regain these customers is an outstandingly important marketing task for the near future.

Overall, we can say that closing large area retail units triggers buyers to choose their own individual preferred type of retail unit, and all the other retail outlets can be considered winners in this situation since both their turnover and their number of buyers increase. However, further studies should be conducted to reveal the complex system of factors which influence buyers in their choices. Based on our researches we suppose that place of residence, place of work, preferred means of transport, demographic features, income level and the behavior of the competitors all can influence the buyers in their choice of retail units.

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