STRATEGY OF EXPANDING THE RANGE OF GOODS BASED ON THE PRICES OF COMPETITORS IN THE RETAIL NETWORK

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Abstract

The aim of the article is to present the possibility of using competitors prices and assortment in the process of determining the strategy of product segmentation with the support of an Retail Management System. The segmentation strategy may be based on activities such as assortment maintenance, assortment deepening, assortment reduction, assortment expansion and assortment exchange. In the surveyed company there is a constant monitoring of the product base existing in the stores of the competition. Data obtained as a result of such activities make it possible to take into account the prices of competitors when determining the price of a new product and its allocation to a given segment, as well as to analyse new products found by competitors, which seems to significantly reduce the risk associated with the introduction of new goods to the sales offer and to support maintenance. The data obtained from competitors can also be used as an aid in decisions concerning the reduction of the sales assortment. Analysis of data obtained from competitors, as a result of which the company obtains information indicating the withdrawal of a specific product from the competition offer, and in particular when such activities concern the entire assortment group related to a particular supplier, may prevent significant problems related to that supplier.

Keywords: Segmentation strategy, product range enrichment strategy, Retail Management System

1. INTRODUCTION

The strategy of expanding the product range may be described as a segmentation strategy, because the commercial product offer has to respond to the needs of customers who expect access to a wide range of products at specific price ranges [1]. The segmentation strategy designed to enhance the range of products available in the retail network can be based on several essential functions [2,3]:

- leaving the assortment unchanged - the company acts in a conservative manner and is focused on trading only in the previously offered goods,
- deepening the assortment - the company does not change the range of products, but only expands them with new variants, e.g. introduction of new packaging with reduced or increased capacity.
- shrinking the assortment - the company removes from the commercial offer the worst-rotating items and those characterized by a low profit margin,
- extending the assortment - the company introduces a new assortment to its offer, which seems to be the most risky,
- exchanging the assortment - the company the company exchanges one product for another.

The results of assortment optimization are seldom of short-term character, the validity of decisions can only be assessed after a few months, but the costs occurring during this time can be high and remain. The greatest risk seems to be associated with the introduction of a new assortment, because in such a case it is necessary to examine the demand side in advance, which is related to the need to check the reaction of consumers to the new assortment, to prepare and make available appropriate storage and sales space, or to search for appropriate suppliers together with the calculation of minimum order thresholds [4]. An analysis of the range of competitors seems to significantly reduce these risks as it increases the chances of making the right decision, which may increase the potential level of profit and reduce potential losses. However, this method requires constant observation of previously selected competitor's stores, which is connected with potentially large data processing. This allows, on the one hand, to identify products popular among the competition's customers that are not included in the own offer, and on the other hand, it allows an early detection of problematic goods, or checking goods that are not profitable in the own offer. The introduction of new products based on such a method should of course start with a test period, but the risk of making an incorrect decision seems to be lower [5]. Negative trends detected in competitors' shops may indicate problems of a given product (e.g. change in consumer preferences), which allows for early implementation of corrective measures, such as adjustment of pricing policy, reduction of orders or even removal of a specific assortment from the offer [6]. Such operations can increase profitability by, among other things, unlocking space and reducing the risk of selling with a low or even negative margin. Optimal selection of goods seems to be key to achieving the assumed sales results, and competitor-based segmentation seems to be one of the ways to significantly optimize the strategy. However, in order to obtain reliable results, the analyses must take into account a large amount of data, which in practice cannot be properly interpreted without the support of professional IT solutions. The subject of the research cited in this publication was the introduction of a segmentation policy based on competitors by one of the large retail chains and the definition of the necessary scope of support for this type of activities by Retail Management System (RMS).

2. SUPPORT OF THE SEGMENTATION STRATEGY BY THE IT SYSTEM

The researched company builds its product database mainly on the basis of import of data from the main supplier's catalogue [7]. These data include the supplier's notifications, statuses, purchase price and logistics parameters prescribed by the supplier. Imported data constitutes basic information about products offered by the main supplier [8]. The user in the IT system has the possibility to extend them with additional operational information (**Figure 1**), such as:

- other product names,
- the characteristics of the products, their description and picture,
- internal notifications,
- usage,
- storage and logistic parameters,
- product components (applies mainly to production),
- planning of price changes over time,
- suggested and alternative articles (ordered in case of lack of main product)

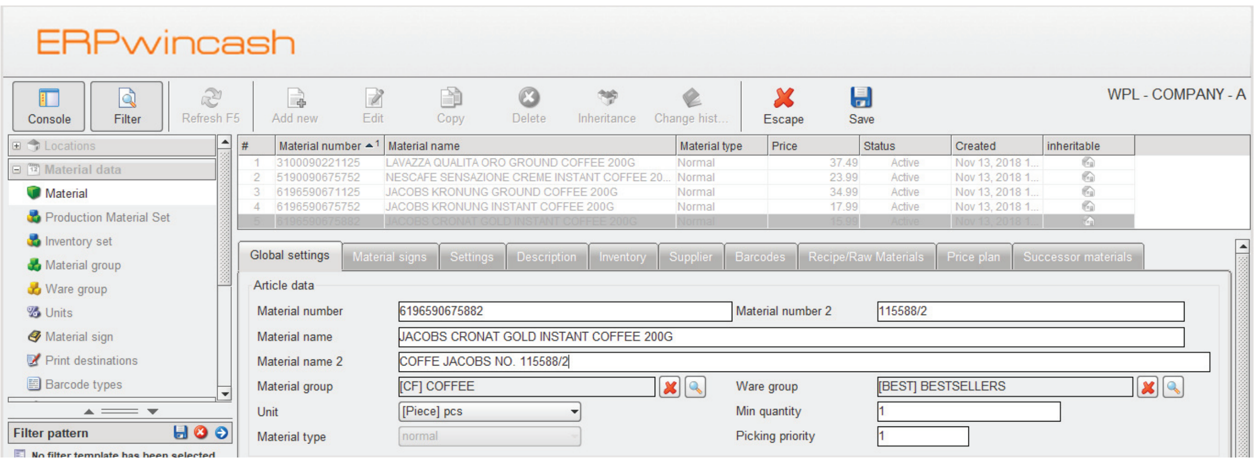


Figure 1 Article data supplementing. Source: Own research

Each new imported index receives the "NEW" attribute, while other indexes created directly by users receive the "INTERN" attribute. In the surveyed company, the goods are segmented within the tree structure. Each product receives an assigned status defining its attributes (orderable, active, seasonal, automatically ordered, locked for orders) [9] (**Figure 2**).

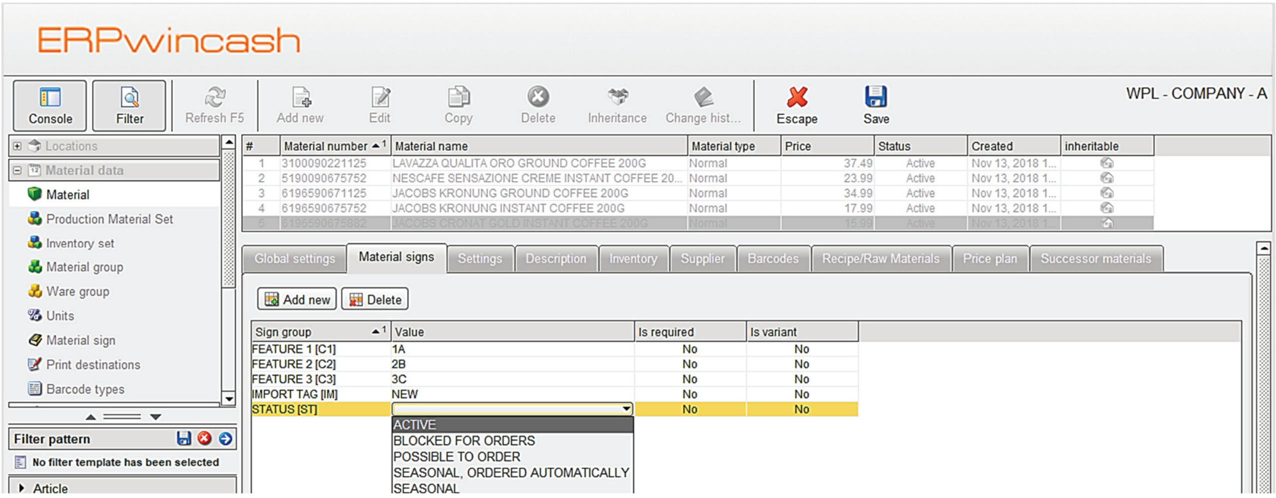


Figure 2 Status definition. Source: Own research

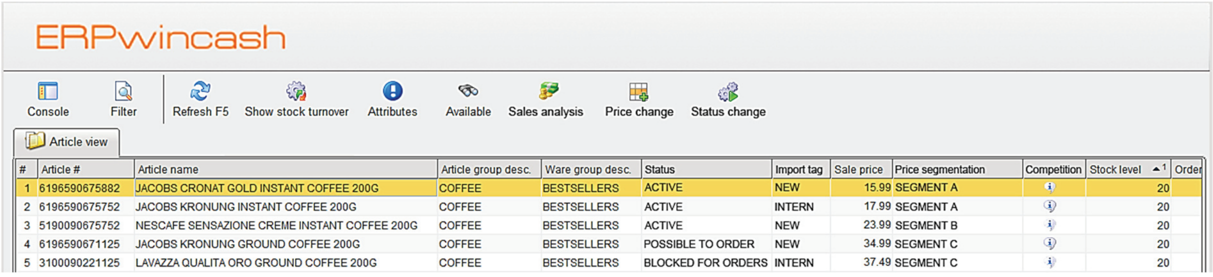
The company continuously monitors the prices in stores defined as competition for its own stores. The result of such monitoring is usually a file containing barcodes and prices of products from competitors [10]. The file also contains the date when the information was collected and the name of the shop where the scanning was carried out. In the next step, the prepared files are imported into the system using interfaces [11]. After the import is finished, the system tries to map own goods with the competitors' goods on the basis of barcodes. Goods which are not automatically matched are subject to an additional matching attempt mainly based on information available on the internet [12]. If the product is found on the Internet, its name and other required parameters are added to the system. Such a strategy seems to significantly reduce the risk associated with the introduction of a new product into the offer. The product is then subject of segmentation. The products database has information on sales results by store, which can be presented for a selected period of time. Additionally, information on sales value and quantity, average price, profit margin and amount, current stock quantity and turnover can be presented. The price segment is an additional characteristic of the product. An important aspect in choosing the way of segmentation is to determine the pricing policy of the company and to define which price segment will be the leading one. The definition of available segments may be as follows:

A) Segment A (30 %).

B) Segment B (50 %).

C) Segment C (20 %).

Assignment of goods to an adequate segment occurs in such a way, that at the beginning the price for the cheapest and the most expensive product is determined. The difference between these values determines the maximum spread of prices. The spread calculated in this way is divided into three segments according to the previously accepted classification, i.e. the cheapest goods plus 30 % is segment A, the next 50 % are goods from segment B, and the remaining most expensive goods - the last 20 % - will be in segment C (**Figure 3**). The calculation of price segments can be carried out each time after a price change or - for efficiency reasons - during the night hours.

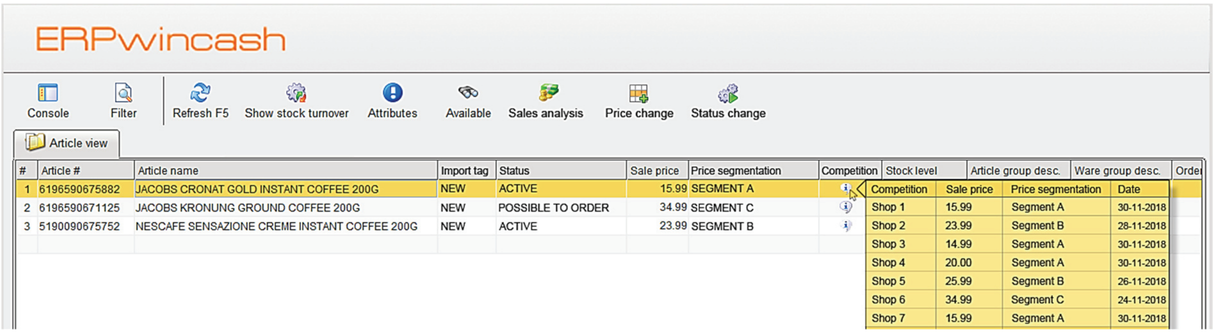


#	Article #	Article name	Article group desc.	Ware group desc.	Status	Import tag	Sale price	Price segmentation	Competition	Stock level	Order
1	6196590675882	JACOBS CRONAT GOLD INSTANT COFFEE 200G	COFFEE	BESTSELLERS	ACTIVE	NEW	15.99	SEGMENT A		20	
2	6196590675752	JACOBS KRONUNG INSTANT COFFEE 200G	COFFEE	BESTSELLERS	ACTIVE	INTERN	17.99	SEGMENT A		20	
3	5190090675752	NESCAFE SENSAZIONE CREME INSTANT COFFEE 200G	COFFEE	BESTSELLERS	ACTIVE	NEW	23.99	SEGMENT B		20	
4	6196590671125	JACOBS KRONUNG GROUND COFFEE 200G	COFFEE	BESTSELLERS	POSSIBLE TO ORDER	NEW	34.99	SEGMENT C		20	
5	3100090221125	LAVAZZA QUALITA ORO GROUND COFFEE 200G	COFFEE	BESTSELLERS	BLOCKED FOR ORDERS	INTERN	37.49	SEGMENT C		20	

Figure 3 Segmentation of goods. Source: Own research

It is possible to perform various analyses supporting the decision-making process, such as analysis of new products compared to the competitors, analysis of sales over a selected period of time or analysis of the availability of goods in selected price segments. As a result of such analyses, it is easier to decide about the introduction of a new product, its allocation to a specific segment, or its withdrawal from the offer. The preview of the goods database presents the list of goods within the assigned nomenclature and makes it possible to perform additional analyses, in particular:

- Analysis of new products based on the status and the date of creation (**Figure 4**).

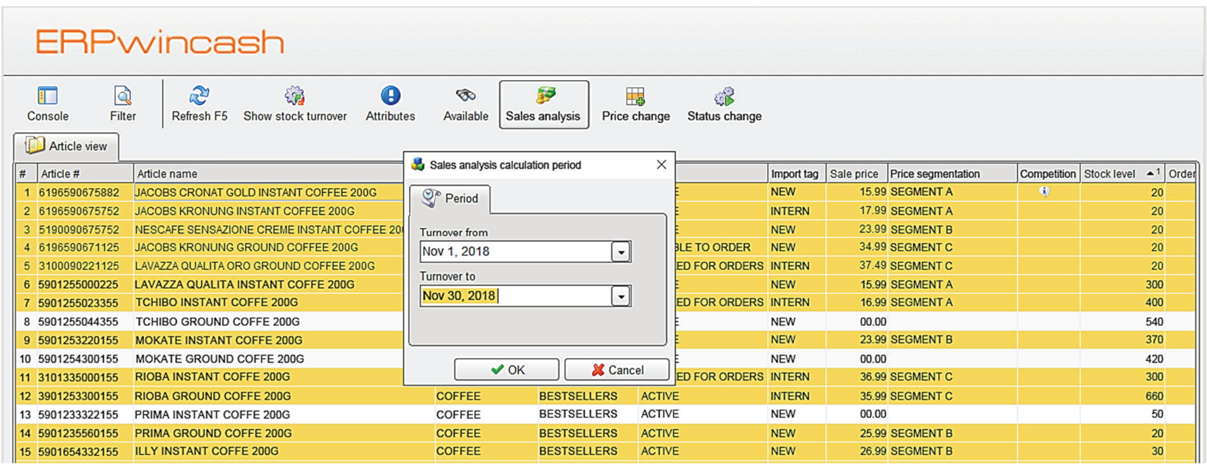


#	Article #	Article name	Import tag	Status	Sale price	Price segmentation	Competition	Stock level	Article group desc.	Ware group desc.	Order
1	6196590675882	JACOBS CRONAT GOLD INSTANT COFFEE 200G	NEW	ACTIVE	15.99	SEGMENT A					
2	6196590671125	JACOBS KRONUNG GROUND COFFEE 200G	NEW	POSSIBLE TO ORDER	34.99	SEGMENT C					
3	5190090675752	NESCAFE SENSAZIONE CREME INSTANT COFFEE 200G	NEW	ACTIVE	23.99	SEGMENT B					

Competition	Sale price	Price segmentation	Date
Shop 1	15.99	Segment A	30-11-2018
Shop 2	23.99	Segment B	28-11-2018
Shop 3	14.99	Segment A	30-11-2018
Shop 4	20.00	Segment A	30-11-2018
Shop 5	25.99	Segment B	26-11-2018
Shop 6	34.99	Segment C	24-11-2018
Shop 7	15.99	Segment A	30-11-2018

Figure 4 Analysis of new products. Source: Own research

- Analysis of sales for a selected period of time (**Figure 5**), taking into account sales volume, the obtained amount and value margin, turnover in days and quantity in the order, or lost sales due to lack of goods in the range.



#	Article #	Article name	Import tag	Sale price	Price segmentation	Stock level
1	6196590675882	JACOBS CRONAT GOLD INSTANT COFFEE 200G	NEW	15.99	SEGMENT A	20
2	6196590675752	JACOBS KRONUNG INSTANT COFFEE 200G	INTERN	17.99	SEGMENT A	20
3	5190090675752	NESCAFE SENSAZIONE CREME INSTANT COFFEE 20	NEW	23.99	SEGMENT B	20
4	6196590671125	JACOBS KRONUNG GROUND COFFEE 200G	NEW	34.99	SEGMENT C	20
5	3100090221125	LAVAZZA QUALITA ORO GROUND COFFEE 200G	INTERN	37.49	SEGMENT C	20
6	5901255000225	LAVAZZA QUALITA INSTANT COFFE 200G	NEW	15.99	SEGMENT A	300
7	5901255023355	TCHIBO INSTANT COFFE 200G	INTERN	16.99	SEGMENT A	400
8	5901255044355	TCHIBO GROUND COFFE 200G	NEW	00.00		540
9	5901253220155	MOKATE INSTANT COFFE 200G	NEW	23.99	SEGMENT B	370
10	5901254300155	MOKATE GROUND COFFE 200G	NEW	00.00		420
11	3101335000155	RIOBA INSTANT COFFE 200G	INTERN	36.99	SEGMENT C	300
12	3901253300155	RIOBA GROUND COFFE 200G	INTERN	35.99	SEGMENT C	660
13	5901233322155	PRIMA INSTANT COFFE 200G	NEW	00.00		50
14	5901235560155	PRIMA GROUND COFFE 200G	NEW	25.99	SEGMENT B	20
15	5901654332155	ILLY INSTANT COFFE 200G	NEW	26.99	SEGMENT B	30

Figure 5 Selection of articles for analysis for a selected period of time
Source: Own research

- Other analyses, such as analysis of goods in price segments vs. competitors, or analysis of current prices vs. competitors' prices.

There are operations available in the system which may result in price changes at a specific time in the future, set logistic parameters for automatic orders or change of product status (e.g. available on the network, blocked for orders) (**Figure 6**).

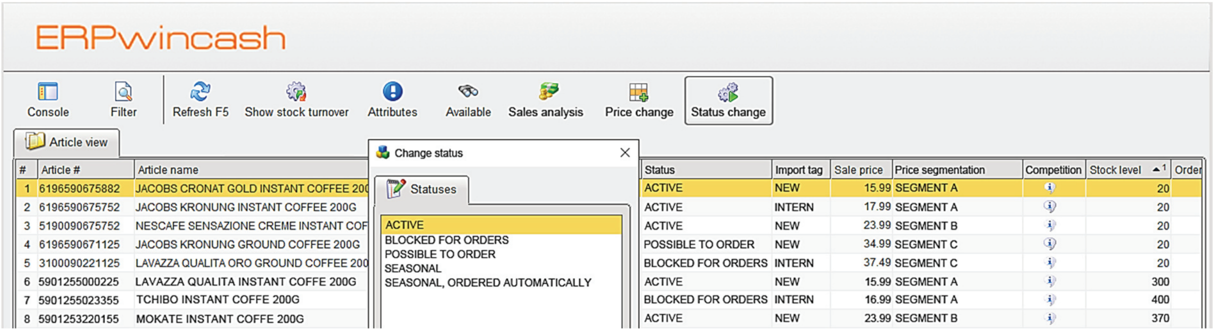


Figure 6 Status change of an article. Source: Own research

Once segmentation has been established, the product database and nomenclature data are processed in the system in order to determine the optimal selling price. A default percentage margin is defined at the selected level of the nomenclature tree. Prices of competitors imported into the system are also presented directly on the product list. Observation of a competitor's offer changing over time may help to make a decision to introduce a particular product, move it to another segment or withdraw it. The table of price changes presents columns with information about the current price and the new price broken down by segments. The system highlights goods which do not have an assigned selling price, with the highest priority being given to goods offered by direct competitors. An initial selling price is then proposed on the basis of the purchase price and the margin set at nomenclature level, which is rounded according to the settings. The user has the possibility to approve the proposed price or to manually modify it by changing the margin or the price. When approving a new price, it is possible to set the date from which it will be active. The price change can be carried out on selected goods and at a selected level of hierarchy. Once new sales prices are approved, they are propagated throughout the entire retail network, or only in locations usually selected for their competitive environment. A change in the purchase price may result in a change in the sales price based on a fixed margin, but the new price is usually compared to the price of a competitor, and in reasonable cases the user has the possibility to modify the calculated price or leave the old price unchanged. In addition, before the final approval of the new price, the user has the opportunity to check the current stock level, the number of active orders or current sales results (**Figure 7**).

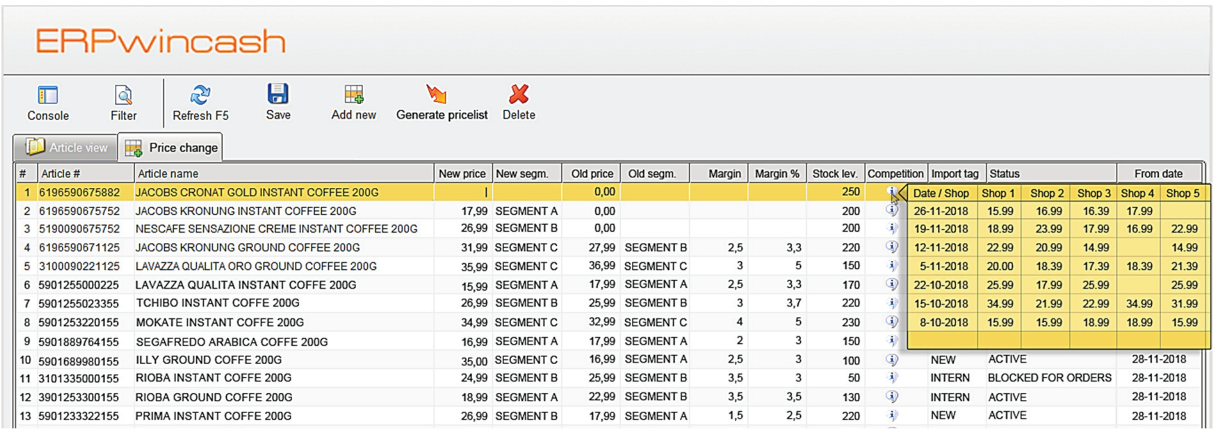


Figure 7 Determining the sales price. Source: Own research

In addition to the management of the current sales price, it is possible to use dynamic price lists (**Figure 8**). In this case, the new promotional price may be defined as a percentage or amount discount to the basic price. It can be defined directly at the level of the product, any level of the product group or a specific feature (e.g. size, colour). It can take into account days of the week, hours, specific customers or their group. These types of promotions may be combined with other promotions or may be blocked for further discounts. They can be active in the whole retail network or in a selected shop or group of shops. Central management of such promotions leads to unification of the offer throughout the entire retail network. New promotions appear in stores according to their central definition and are not subject to local changes. Employees of individual stores can print price tags (for shelves, stands, posters), which contain properly prepared information about the current promotion (e.g. the base price crossed out) [13].

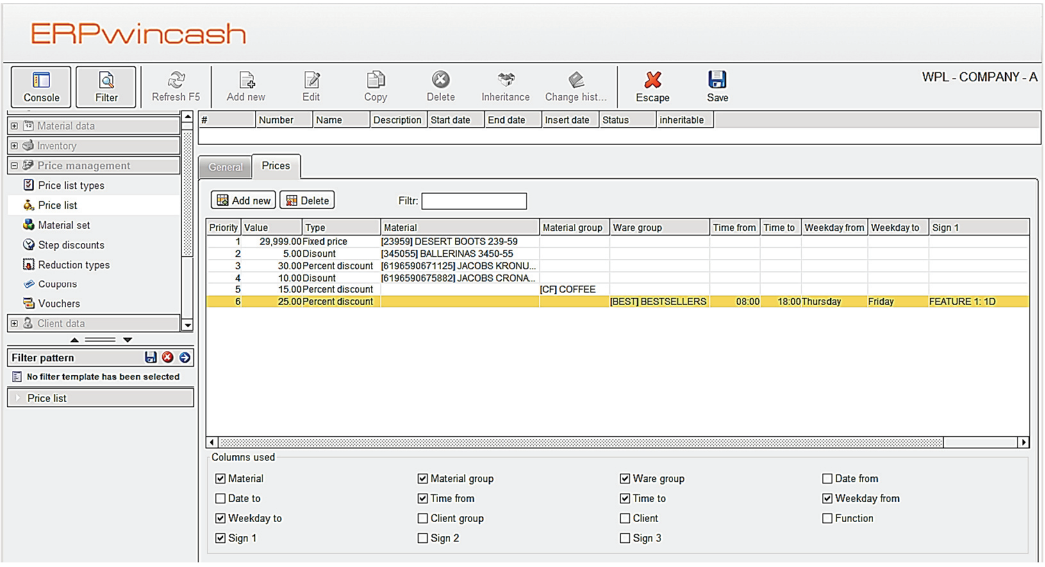


Figure 8 Additional promotions. Source: Own research

3. CONCLUSION

Building a strategy for expanding the product range is a complex process that requires a lot of information to be taken into account at the same time. In particular, if the strategy is based on prices and the offer of competitors, the amount of information processed may be very large, which makes it difficult to make an optimal price decision. Large retail networks, often operating in a very diverse competitive environment, are especially exposed to the effects of non-optimal decisions. The use of an IT system dedicated to the management of retail networks (RMS) may be the key to achieving the desired effect.

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