

RETAIL READY PACKAGING – WHAT'S IN IT FOR FOOD MANUFACTURERS?**Assist. Prof. Davor Dujak, PhD**

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*Scientific paper***Abstract**

Process of concentration in retail market, as well in Croatia as in other European countries, has insured for retailers stronger negotiating position in fast moving consumer goods supply chain, especially in food chain. Retailers have initiated retail supply chain management - a lot of different cost efficiency processes in food supply chain which they were able to force with their suppliers, usually with the absence of an equitable distribution of savings that this collaboration enables. One of these is development of retail ready packaging for food products, designed from manufacturers' side with main intention to reduce in store labour cost for stacking products on shelves. Goal of this paper is to investigate if food manufacturers can, and how, turn retail ready packaging into their own advantage instead of looking to this trend only as a factor that causes partly higher production cost.

Paper analyses supply chain and marketing aspects of change from ordinary packaging to retail ready packaging. Questionnaire study in Croatian food manufacturing companies was conducted, that revealed some potential for improvement of manufacturing echelon of supply chain when it comes to retail ready packaging. On-line questionnaire was distributed to all Croatian food manufacturing companies that manufacture products sold in retailing.

Research has shown positive connection between size of a company and degree of its retail ready adoption, as well as between start of significant RRP implementation and entrance of foreign retail chains in Croatia. RRP influence three kinds of costs for manufacturers, and main benefits of RRP for manufacturers are focused on shelf visibility, product image and relationships with retailers.

Regarding research limitations, study was conducted only in Croatian companies, and sample does not cover equally all branches of food industry. Regional survey would give a clearer view on retail ready packaging relationships in international food supply chains.

Paper clearly indicates contemporary relationships between retailers and manufacturers in food supply chain regarding retail ready packaging, where retailers demonstrate all their capabilities drawn from retail supply chain management. Additionally, paper argues that there is a good possibility for manufacturers to use advantages of retail ready packaging mostly from its advertising function as well from certain supply chain possibilities.

Key words: retail ready packaging, food supply chain management, food production industry, food retail trends

1. INTRODUCTION

Today it is normally taken for granted that any product of our choice is available in almost any supermarket. The issue how the good came to that particular supermarket is not something that a modern consumer is concerned about, neither he nor she should be. To be able to maintain this status in consumer mind, the supply

chain as a whole had to involve the development of integrated supply chain management and also to ensure that channels of distribution and supply chains are both anticipatory (if appropriate) and reacting to consumer demand, at general and detailed segment levels (Ferne & Sparks, 2009). Fast moving consumer goods (FMCG) market, due to continuous process on concentration, development and acceptances of new technologies from the side of retailers, has been now more than ever driven by the largest retail chains. Today, retailers are the active designers and controllers of product supply in reaction to known customer demand. They control, organize and manage the supply chain from production to consumption (Ferne & Sparks, 2009, p. 9).

As a consequence, many authors talk about retail supply chain management – RSCM (Ray, 2010; Gustafsson et al., 2009; Alagiri & Selvan, 2007, Ayers & Odegaard, 2008; Finne, & Sivonen, 2009). Understanding of this term may be twofold (Segetlija, Mesarić & Dujak, 2012): a) the retailing supply chain management, or b) managing the supply chain by retailers.

In the case of the retailing supply chain management, term simply implies carrying out activities of supply chain management (SCM) in retail economic operator (mostly logistics activities).

RSCM as a managing of supply chain by retailers describes supply chain situation in which retailers takes a keyword in the supply chain initiating SCM activities with other members, and in some ways acting as one who actually manages the whole (or most) of the supply chain. Through the growing dependency of other members, power of retailers increases significantly. In food supply chains retailers continually conduct SCM activities that are directed toward other members of the supply chain, and which usually result in significant degree of control of the entire supply chain by retailers. Those activities are primarily directed to their suppliers, but also to final customers - mainly through category management activities as a way of retail demand management (Segetlija, Mesarić, Dujak, 2013).

Through RSCM retailers were introducing many supply chain innovations and tools which are primarily designed to improve retailer's business, but also the supply chain as a whole. Most of them are made and introduced by food retailers - regional distribution centres in 1960s and 1970s, outsourcing of logistics activities, development of reusable transport packaging, conversion of warehouse in sales area in 1980s, cross-docking, in-store Internet delivery, Efficient Consumer Response (ECR) development, factory gate pricing in 1990s and 2000s (Gustafsson et al, 2009, p. 45). RSCM field of packaging in particular, in recent years is witnessing successful use of roll containers, rigid plastic packaging, retail ready packaging, one touch packaging or "forkable" display units. Also, there are even more sophisticated innovations in forms of active and intelligent packaging options (Dobrucka, 2013), not rarely associated to Radio Frequency Identification (RFID) technology (Gustafsson et al, 2009, p. 213-214).

One of tools that retailers have introduced to improve efficiency in their supply chain is so called Retail Ready Packaging (RRP) or Shelf Ready Packaging (SRP), mainly designed to reduce in-store labour cost for stacking products on shelves. As the negotiating power of retailers grows larger towards its suppliers, suppliers gradually have to equip their products with RRP, even though it almost always means higher production cost.

In spite of the fact that RRP is not enough studied in scientific and professional literature, its advantages for retailers are well known. This paper turns to manufacturer's point of view. Long-term sustainable SCM is necessary to be based on an equitable distribution of savings and other benefits that are achieved through this type of collaboration in the supply chain. Therefore, the goal of this paper is to turn the perspective and investigate RRP from food manufacturers' point of view, to find advantages that food manufacturers can benefit from by turning them into their favour, and categorized them.

In order to find those advantages the survey among Croatian food manufacturers has been conducted.

2. LITERATURE REVIEW

2.1. Retail Ready Packaging

Retail ready packaging (RRP) is a form of transit packaging designed not only for transportation purposes, but also to ease and facilitate the process of in-store replenishment (supply chain function). As a secondary packaging, it is packaging where the actual products are being shipped in from the manufacturer to the retailer (Schrijver, 2013, p. 6). But in the same time, RRP is packaging that enhance the shopping experience for the consumer (Pira International, 2011) and this way benefits all supply chain members (marketing function). RRP allows goods to be moved direct to the point of sale with minimal handling, and to be easily collapsed and disposed of ready for recycling (Coles, 2013, p.199). Simple packaging is being replaced by, essentially, more complicated packaging to make activities in store easier and more efficient.

Although sometimes identified with Shelf Ready Packaging (SRP) because of its most important function, RRP is broader term that encompasses different kind of packaging like shelf ready packaging, display ready packaging, replenishment ready, infrastructure ready or shopper ready packaging (IGD Supply Chain Analysis, 2011; Korzeniowski, 2009). In 2005 The Institute of Grocery Distribution and Efficient Consumer Europe UK

proposed that “shelf ready packaging” should be used as a term for a product that comes ready-merchandised and that can be placed directly on to a shelf. “Retail ready packaging” is their term for additional aspects of easy identification and easy packaging opening, but where the outer case is moved direct to the shelf following “one-touch replenishment” principles (Gustaffson et al, 2009, p. 210).

Retail ready packaging impacts all echelons in supply chain from its production echelons downstream, therefore it is very important that every activity of supply chain is considered by manufacturer, transportation and retailer, in order to make RRP as efficient as it can be. For example, it is crucial that packaging designers are directly (first-hand) acquainted with the store operations of employees who will stack goods on the shelves or on stores' floor. Otherwise, the situation may occur in the store where the time of shelving RRP even extends over time needed for shelving traditional packaging (Fisher & Raman, 2010, p. 136), resulting in other expected positive impacts of RRP to be reduced.

It is difficult to precisely determine the time of first appearance, i.e. the first development of RRP's, as it was coming in different forms. What is certain is a fact that retailers oriented on its costs and final customer, primarily hard discounters, have recognized potential for improvement of traditional packaging. In their everlasting quest for ways of cutting cost to ensure the lowest possible price, hard discounters have recognized opportunities for savings through RRP's - primarily reducing the time needed to replenish the shelves (i.e. reducing in-store labour costs). It can be concluded that RRP, in today's forms, first entered European stores in early 2000s - but even before there were RRP attempts. Some authors (Creevy, 2010) see German hard discounter Aldi as a pioneer of RRP due to his use of pallets or boxes (that products are delivered on by the supplier) as display units in their stores. When it comes to retail assortment - „nearly 100 percent of discounters' products use RRP, compared with only about 40 percent of non-discounters“ (Warschun, 2011). According to The Institute of Grocery Distribution, UK retailer Tesco is the pioneer in using RRP. In 2005 Tesco started to organize RRP meetings with their consumer packed goods suppliers. After that, The Institute of Grocery Distribution has done the same with Sainsbury's UK and in the following years continued with their activities all over the world, from Baltic to Australia and North America (Reynolds, 2010).

Regardless of which retailer was the first to introduce the RRP, the reasons of occurrence of RRP in European discounters are manifold:

- Need to cut in-store labour costs (highest retailers' cost and retailers are faced with high employee turnover⁶) through faster products replenishment;
- Traditionally smaller stores than in USA⁷ required more frequent deliveries and smaller packages to avoid out-of-stock (OOS) situations⁸,
- Environmental benefits – easier to disposal, less need for paper in RRP solutions (if done properly), and less product waste (Wheeler, 2012).

From Europe (Germany and United Kingdom), RRP started its journey all across the world (Figure 1). The presence of RRP on stores shelves is quite different among countries and continents. Responsible for that is the cost of the labour. RRP first has been applied among European retailers, especially in the North West and Central Europe, where the labour is more expensive than in other parts of Europe or other continents, for example North America (Finne & Sivonen, 2009, p. 194). After Europe, successful implementation has been conducted in North and South Americas, and especially in Australia, but their implementation is spread more slowly in comparison to Europe.

Efficient Consumer Response (ECR) published their first Retail Ready Packaging Toolkit in 2006 where the five RRP functional requirements were specified (ECR Europe, 2006, p. 15): Easy Identification, Easy Open, Easy Dispose, Easy Shelf and Easy Shop. Five easy of RRP primarily benefit to retailer during in-store operations. Easy identification also benefits to manufacturer (and possible wholesaler) but not significantly different than in case of traditional transit packaging (ECR Europe, 2006, p. 6).

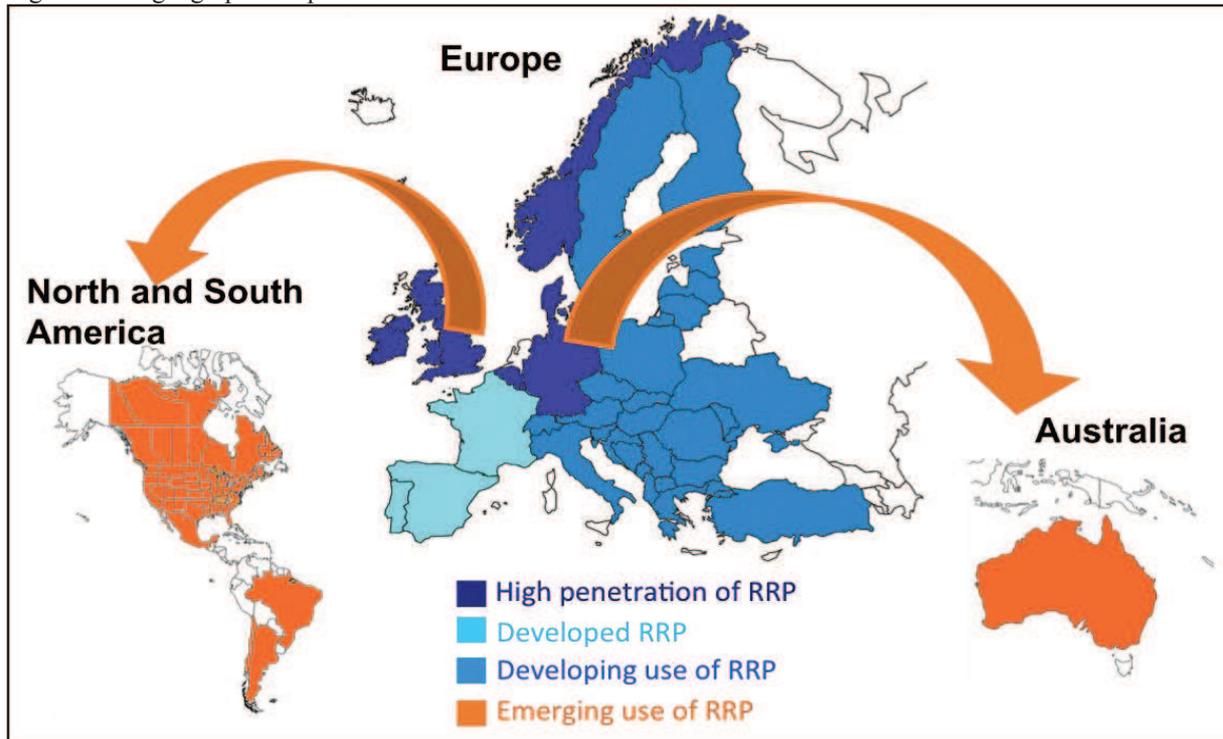
RRP can be made from solid fireboard, rigid plastic or metal, but according to Smithers Pira's study (Pira International, 2012), titled 'The Future of Retail Ready Packaging to 2017', more than three-quarters of the total volume of materials used in 2011 in the world is corrugated board. One more study concluded that we can expect growth or RRP use in the world at a CAGR (Compound Annual Growth Rate) of 3.57 percent over the period 2013-2018 (Infiniti Research Limited, 2014).

⁶According to Segetlija & Dujak (2013, p. 112) employee turnover in retailing on store positions can reach even 300 % annually

⁷European household sizes are smaller and life styles are different so Europeans shop at smaller stores with more frequent shopping (Arzoumanian, 2011, p. 24)

⁸OOS in retailing retail represents a situation where there is no product on the shelf/refrigerator or sales stand

Figure 1 The geographical spread of the use of RRP in 2011



Source: authors according to (IGD Supply Chain Analysis, 2011)

Regarding RRP types, ECR Europe (2006, p. 14) classifies all RRPs in three types: shelf RRP, merchandising RRP and re-usable RRP.

Main benefits of RRP can be investigated in the store itself, and there IGD (IGD Supply Chain Analysis, 2011) finds considerable number of advantages:

- More accurate stock counting and order generating,
- Less product damages through case cutting,
- Faster identification of products in back room,
- Increased speed in building promotional displays,
- Faster spotting of stock by replenishment teams,
- Faster stocking of shelves,
- Reduced damages, shrink and waste,
- Reduce time to train new staff,
- Less double handling of stock,
- Improved code rotation,
- Faster code checking.

In high scale environment of large international retailers, absence of different kinds of box cutters is also significant advantage – according to Arzoumanian (2011, p. 25) RRP drastically reduces injury risk from box cutters and eliminates or minimizes product damage from box cutters.

According to Verghese et al. (2013, p. 37) RRP reduce product waste as well, because of more efficient stock rotation by increasing sales (through better visibility and availability) and increasing the speed of replenishment (less out of date situations). Even more effects of product waste reduction can be seen in using reusable RRP solutions (reusable crates, display pallets and fractional pallets).

In many cases, RRP is of lighter weight than traditional packaging what causes less material needed to manufacture it, as well as easier manipulation during product replenishment.

2.2. Retail ready packaging and food manufacturers

All these benefits should be accomplished with one major goal – to increase sale through its higher on-shelf availability resulting for higher sale and profit both for retailer and manufacturer. And this is the way retailers usually present to manufacturers a need for RRP implementation. Hence, RRP can be classified as a type of retailers' SCM collaboration initiative (part of RSCM). This initiative can be expressed directly by retailers, or

indirectly through necessity arising from competition of other manufacturers who have had direct request of retailers. Either way, cost of implementing RRP packaging is almost always and exclusively on manufacturers.

Majority of RRP are used for food products (nearly 78%) and beverages (16%), and non-foods counts for only 6% in 2010 (Pira International, 2012). In the scientific literature most RRP studies are in the field of fresh food packaging, where the need for this type of packaging is the greatest (Jeyamkondan et al., 2000; Stubbs et al. 2002; Eilert, 2005; Walsh & Kerry, 2012; Venturini et al., 2006; Ranade, 2008). The problem that food manufacturers in Europe and USA (Arzoumanian, 2011), as well in Croatia, usually emphasize is a lack of fair distribution of benefits that result from RRP. Regardless of the increased sales, the introduction of RRP usually leads to an increase in the cost of packaging for manufacturer, while significantly reducing in-store costs at retailers. Fair distribution of achieved savings or costs caused by RRP would represent incentive for further SCM collaboration. Research from United Kingdom has shown that almost half manufacturers in 2006 do not manage to return its investment in RRP, but they still do it “to remain competitive and maintain good customer relationships” (Food Manufacture, 2006).

As this subsequent SCM cooperation does not usually happen in the food supply chain (due to retailers' power), the manufacturer is left only to focus on the benefits of RRP that can lead to the quicker and significant increase in sales (primarily for retailer and then for manufacturer). In this way, its investment can be quickly restored. These benefits are:

- More opportunities for advertising in the store than traditional packaging;
- Opportunities to strengthen the image of its own brand;
- Smaller packages can enable the eventual availability in a larger number of stores (even in smaller stores);
- If done properly RRP can decrease need for packaging material;

First two benefits of RRP are of marketing nature, while next two are supply chain issues.

Improved brand recall and awareness can be achieved through larger surface of packaging that is exposed to the views of shoppers in the store making it more noticeable. According to Schrijver (2013), RRP also insures greater product visibility. While OOS situation for products without RRP (only in primary packaging) will result with empty shelf, RRP products in OOS situation will leave RRP packaging in place in front of the shelf with manufacturers' message for shopper on it. Schrijver (2013, p. 37-38) has proved that designed elements of RRP in certain degree re-enforce brand message as well as primary packaging, but manufacturer should ensure that design matches with brand attributes. Similar conclusion about product recognition has been made in ECR Europe study (2006, p. 12).

It is easier to entry on the overcrowded shelf at retailers' store with the smaller package, especially in the case of food products regarding their best before dates. It also gives a chance to category manager to duplicate product position in the store, if the store policy allows it. Neighbourhood stores with smaller sale surface are again opening in the centres of towns on attractive locations (e.g. traditionally large surface retailers like Spar and Billa in Croatia), so smaller packages are necessity, due to limited space.

American food manufacturer Kraft claims that through the use of RRP for its Philadelphia cream cheese managed to save more than 362 tons of paper packaging in a year. These results require large investment in packaging design, whereby the main challenges are concerning proper board strength and accurate pressure of the perforated rule for safety in supply chain and ease of opening in retail store (Mohan, 2012).

According to Korzeniowski's research (2009), not negligible advantage of RRP is the fact that most customers prefer it. In the comparison with primary individual packaging, consumers in retail stores emphasize better design and features that make it easier to find a product on a shelf, as well as presenting a product in a way that is not creating any barriers while purchasing item.

3. METHODOLOGY

For the purpose of this paper research was conducted from June to August 2014 on Croatian food manufacturing companies. Base for the population and sample production was Register of Croatian Companies done by Croatian Bureau of Statistics for Croatian Chamber of Economy (Register of Croatian Companies, 2014). The study included Croatian companies that have met the 5 following criteria:

- Active company that is not in bankruptcy,
- Have at least one employee,
- Croatian founder,
- Type of organisation: Limited liability company or Joint-stock company,

- Activity code according to NACE2007⁹: C10 (Manufacture of food products) except C1071 (Manufacture of bread; manufacture of fresh pastry goods and cakes) under 51 employees¹⁰.

Population of 529 companies in Croatia meet these requirements and to all were sent e-mail with a link to the online survey (questionnaire). Questionnaire was aimed to find out food manufacturers' level of RRP adoption and time of first implementation. Also, it measured proportion of products with RRP in whole assortment with their proportion of turnover, level of change in costs associated with RRP, as well as main advantages of RRP for manufacturers. Research questionnaire was developed by adapting questions from previous RRP research (IGD Supply Chain analysis, 2011; ECR Italia, 2010;), as well as on the basis of interviews with employees of Croatian large food manufacturer from packaging, logistics and marketing department.

Most research constructs were measured using multiple-item 5-point Likert scales. During the 6-week period questionnaire was sent 5 times, and a total 36 filled and valid questionnaires were received, which provide random sample with overall response rate of 6,81 % (Table 1). Answers were provided by logistical or marketing managers of companies. In Table 1 it is possible to see distribution of the companies in the sample in relationships to the distribution of the companies in the population, all arranged according to NACE 2007 classification. A sample represents population very well in almost all food industry categories, except in C109 (Manufacture of prepared animal feeds) where there is no respondents.

Table 1 Distribution of the companies in the sample and population according to different food industries (according to NACE 2007)

Food industry (NACE 2007)	Frequency	Share in sample (%)	Population	Share in population (%)
C101 Processing and preserving of meat and production of meat products	6	16,70	112	21,17
C102 Processing and preserving of fish, crustaceans and molluscs	2	5,60	33	6,24
C103 Processing and preserving of fruit and vegetables	3	8,30	56	10,59
C104 Manufacture of vegetable and animal oils and fats	2	5,60	40	7,56
C105 Manufacture of dairy products	4	11,10	58	10,96
C106 Manufacture of grain mill products, starches and starch products	2	5,60	40	7,56
C107 Manufacture of bakery and farinaceous products	4	11,10	74	13,99
C1081 Sugar manufacture	2	5,60	3	0,57
C1082 Manufacture of cocoa, chocolate and sugar confectionery	6	16,70	9	1,70
C1083 Processing of tea and coffee	1	2,80	37	6,99
C1084 Manufacture of condiments and other food supplements	1	2,80	9	1,70
C1089 Manufacture of other food products	3	8,30	32	6,05
C109 Manufacture of prepared animal feeds	0	0,00	26	4,91
Total	36	100,00	529	100,00

Source: survey

All companies were divided into 3 segments according to their size: large Croatian food manufacturers (LCFM) with more than 250 employees, medium Croatian food manufacturers (MCFM) with more than 50 and less than 251 employees, and small Croatian food manufacturers (SCFM) with more than 1 and less than 51 employees (Table 2).

⁹Statistical classification of economic activities in the European Community, abbreviated as NACE, is the nomenclature of economic activities in the European Union; the term NACE is derived from the French *Nomenclature statistique des activités économiques dans la Communauté européenne* (Eurostat, 2013)

¹⁰ Companies under code C1071 with less than 50 employees (391 of them) are small bakeries that manufacture and sell on the same site and don't use RRP. Only LCFM and MCFM companies from C1071 possibly use RRP if they entered large retail chains with their products, and they are included in a sample.

Table 2 Characteristics of sample according to size of a company

Populations' segments	Population N	Sample n	Respondent rate $f = \frac{n}{N}$
LCFM (more than 250 employees)	31	18	58,06 %
MCFM (between 51 and 250 employees)	79	13	16,46 %
SCFM (between 1 and 50 employees)	419	5	1,19 %
Total	529	36	6,81 %

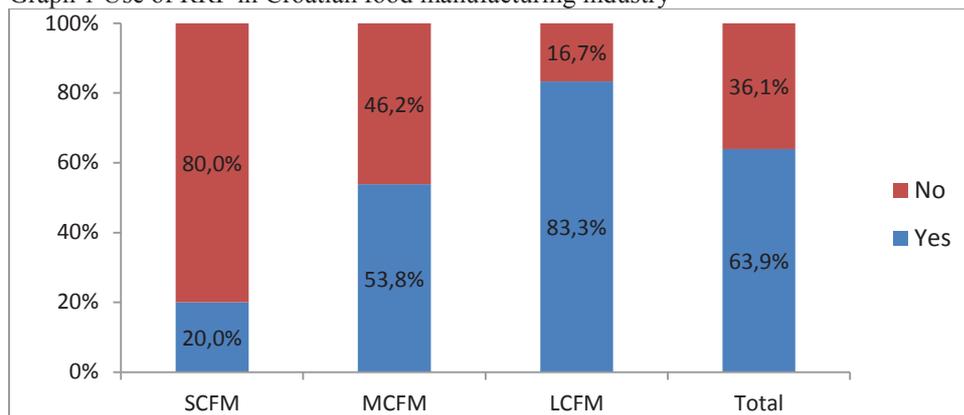
Source: survey

Stratified sample showed different response rates. Best response rate was in a LCFM (58,06 %), satisfactory response rate of 16,46 % was in a MCFM segment, and worst was in SCFM (1,19 %).

4. RESEARCH RESULTS

Response rates correspond with the replies to the question about the use of RRP's. Specifically, 83,3 % of LCFM and 53,80 % of MCFM respondents use RRP packaging for their products, as compared to only 20 % of SCFM respondents (Graph 1). It can be concluded that larger companies are not only using more RRP, but also more recognize the significance of RRP research and possibility of improvement of its use.

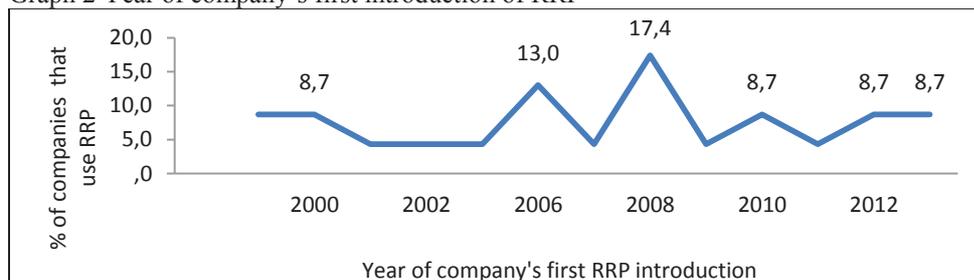
Graph 1 Use of RRP in Croatian food manufacturing industry



Source: survey

Graph 2 indicates time of first RRP introduction in respondent companies and highlights most important years of first RRP use in Croatian food production market. First significant pick can be traced to 2006 – year when German „hard discounter“ Lidl first entered Croatian retail market. This shows that Lidl didn't just enter on Croatian retail (mainly) food market, but as well on Croatian food production market (primarily through private labels done by Croatian manufacturers for Lidl). In this way Lidl has incorporated Croatian manufacturing companies in his supply chain, but also introduced foreign manufacturers and their supply chain characteristics to Croatian market. Due to intensifying competition, in 2008 other retailers are also beginning to demand RRP packaging, but also manufacturers themselves are introducing RRP in order to remain competitive.

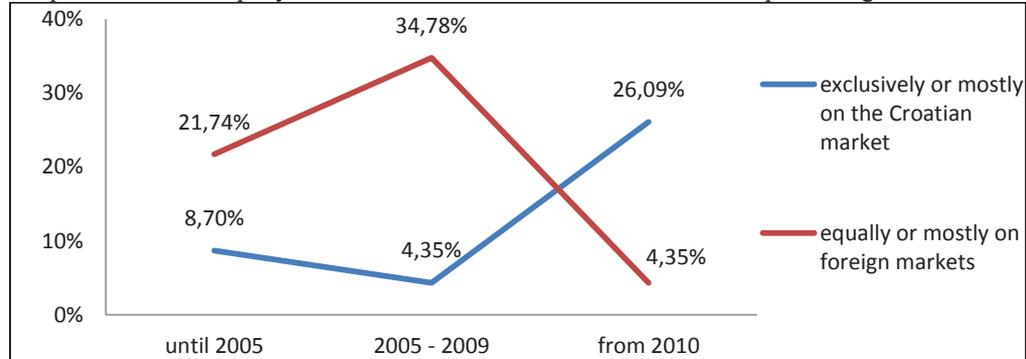
Graph 2 Year of company's first introduction of RRP



Source: survey

Graph 3 shows the relation between years of company's first introduction of RRP in relation to its prevailing sales market. We can conclude that Croatian food companies that sell their products mostly on foreign markets or equally on foreign and Croatian markets, started to introduce RRP earlier than companies whose prevailing market is Croatian market. This is one more evidence that RRP as a technological innovation in supply chain, came to Croatia from international retail supply chains in a significant degree.

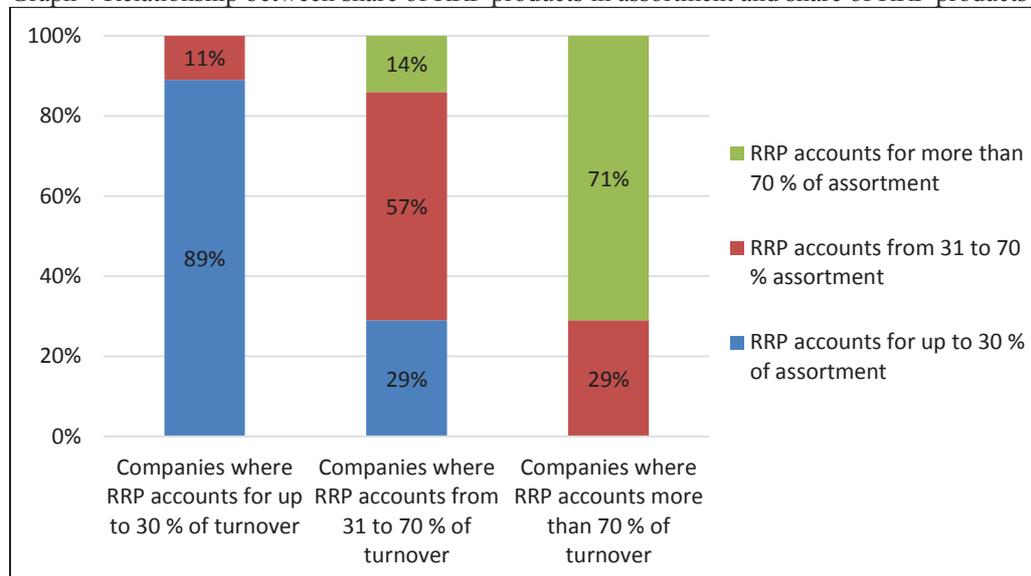
Graph 3 Year of company's first introduction of RRP in relation to its prevailing sales market



Source: survey

Another goal of research was to examine if there is a connection between proportion of products with RRP in whole product assortment, and proportion of products with RRP in whole manufacturers' turnover (traffic). According to Graph 4, 89 % of companies in which RRP accounts for up to 30% of turnover, also have up to 30% of RRP in assortment. Furthermore, 57% of companies in which RRP accounts from 31% to 70% of turnover have between 31% and 70% of RRP products in their assortment. But more importantly, 29% of companies achieve between 31% and 70% of turnover with assortment where RRP contributes with less than 30%. And finally, companies in which RRP accounts for more than 70% of turnover achieve these turnovers with same (71% of companies) or smaller (29% of companies) proportion of RRP in assortment. This leads to conclusion that usually share of RRP products in assortment is same or smaller, than share of same products in companies' turnover. In other words, RRP products generate same or higher turnover than traditional packaging.

Graph 4 Relationship between share of RRP products in assortment and share of RRP products in turnover



Source: survey

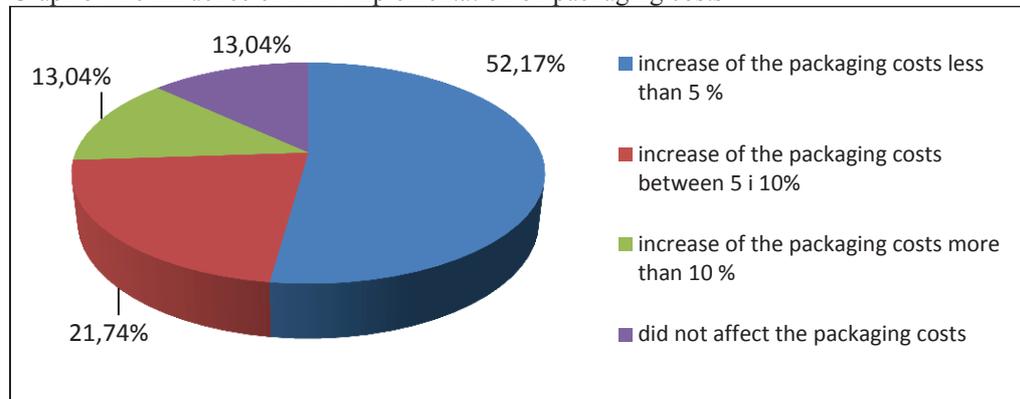
When it comes to costs caused by RRP, manufacturers have three kinds of costs to consider.

First cost to consider should be cost directly associated with preparation and starting of RRP implementation and it is mainly seen through investment in new packaging line equipment. Research indicates that 60,9 % of companies had to invest in packaging line equipment – 26,1 % of them had significant investment in the packaging line equipment (in most cases new packaging lines), and 34,8 % of them only had minor investment in adjusting of the existing packaging line. It is interesting that 39,1 % didn't have any investment in

packaging line equipment, which leads to conclusion that they have outsourced its packaging line or changes on existing packaging line didn't require any additional investment.

Secondly, the cost of packaging itself in most cases changes with RRP implementation, and research shows that packaging cost increases in case of 87,48 % of companies (Graph 5). More than half of respondents reported increase less than 5 %, 21,47 % of them recorded increase between 5 and 10%, and 13,04 % of respondent companies recorded increase of packaging costs more than 10%.

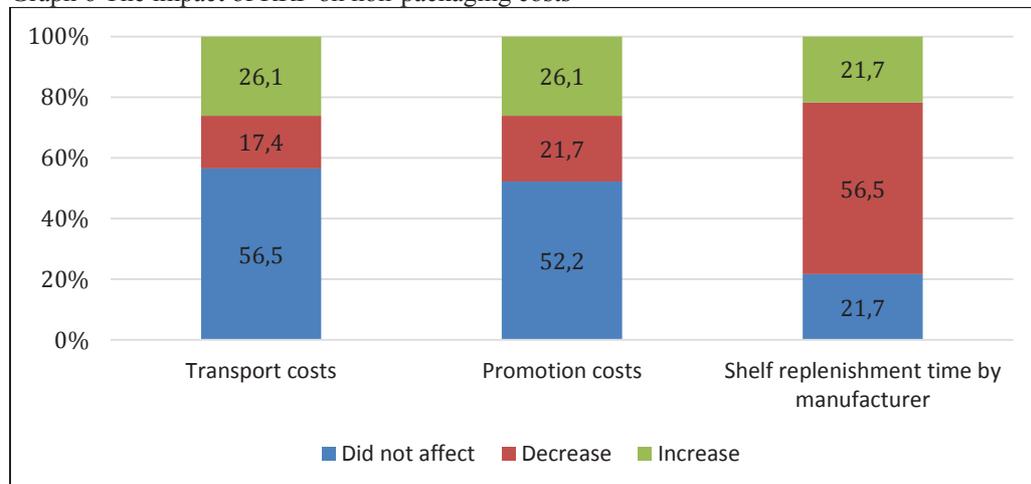
Graph 5 The influence of RRP implementation on packaging costs



Source: survey

Finally, there is a group of costs that are indirectly caused by RRP implementation. Through literature research and industry interviews three costs are identified that are changing under the influence of RRP – cost of shelf replenishment time by manufacturer, promotion costs and transport costs. As it is evident from Graph 6, only cost for manufacturers that has been significantly changed is cost of shelf replenishment time¹¹, which decreased with RRP introduction in case of 56,5% of respondents who have introduced RRP packaging. Other two costs in case of more than half of respondents didn't change by RRP implementation.

Graph 6 The impact of RRP on non-packaging costs

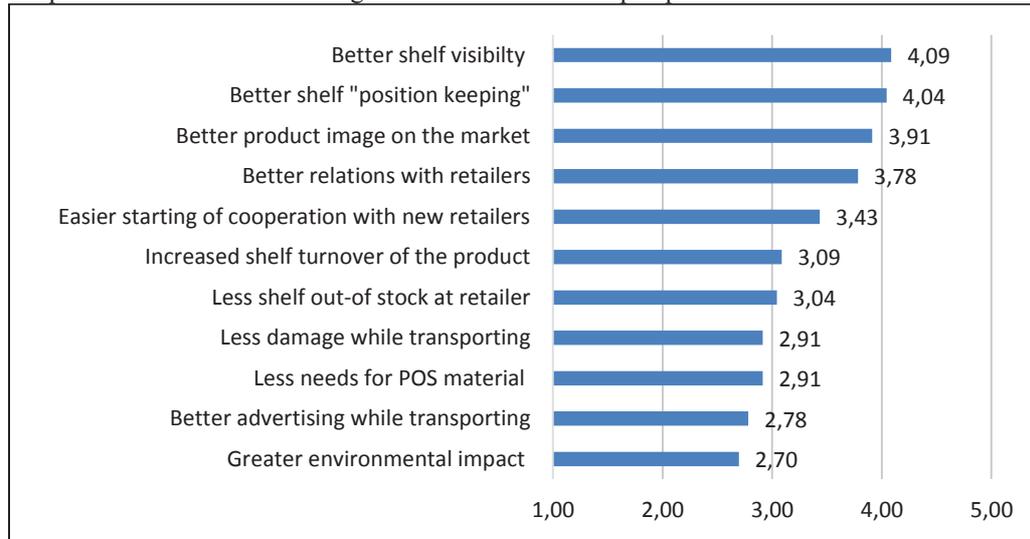


Source: survey

By using 5-point Likert scale with 1-“Not advantage at all”, and 5-“Exceptional advantage” as anchors, key benefits of RRP for manufacturers has been examined and their means are presented in Graph 7. Manufacturers see better shelf visibility (mean = 4,09) and better shelf “position keeping” (mean = 4,04) as most important advantages of RRP, because they both directly positively influence noticeable of product (greater product visibility on shelf). For them is also important to improve product image on the market through RRP (mean = 3,91), and to improve relations with retailers (mean = 3,78) or to ease start of cooperation with new retailers (mean = 3,43).

¹¹This corresponds with the most significant advantage for retailers

Graph 7 Means of RRP advantages from manufacturers' perspective



Source: survey

Finally research has shown that 78,26 % of companies plan to increase (56,52 % of companies) or significantly increase (21,74 % of companies) share of RRP products in assortment within 1 – 3 years. 13,04 % of companies plan not to change share of RRP in assortment, and only 8,70 % plan to decrease share of RRP in assortment (and they are all MCFM). These results are consistent with forecasting research about further spread of RRP in world (Korzeniowski, 2009).

5. CONCLUSIONS

Today's food supply chain is more and more driven by large retailer. In their intention to answer consumer trends from one side and to cut down operating cost on the other side, retailers are developing different tools and/or operating systems under RSCM concept and Retail Ready Packaging is just one of tool in the range. Food manufacturers are aware that the benefits of RRP are mainly reserved for retailers, but they are also willing to make the extra effort (and extra cost) just to stay in the game, or to improve their negotiating position. The main goal of this research was to look into RRP from the food manufacturers' perspective and to identify benefits on their side of value chain.

Research has shown a positive connection between size of Croatian food manufacturing company and growth of RRP use. Large Croatian food manufacturers have already implemented RRP to their business in very high percentage (83%).

Regarding RRP use, an international character of selling activities of manufacturers plays a major role. Croatian food manufacturers that are present on international markets (markets outside Croatia) implemented RRP before the one present only on Croatian market. Furthermore, RRP implementation in Croatia is highly driven by international hard discounters (most of Croatian food manufacturers implemented RRP in 2006-2008 period when Lidl entered Croatian market); same like on EU markets, which can be drawn as a parallel from previous research.

Research also concluded that in Croatia manufacturing industry, RRP products generate same or higher turnover than traditional primary packaging. It has been proven by results indicating that share of RRP products in assortment is same or smaller than share of same RRP products in companies' turnover.

Three groups of costs affected with RRP are identified through research. Cost of investing in packaging line equipment arises at 60,9 % companies. Direct cost of packaging is increasing in 87,84 %; in more than half companies for less than 5 %. Indirect cost like transportation cost, promotional costs and shelf replenishment could also be changed by RRP implementation, but only cost of shelf replenishment time by manufacturer decreased in a large scale - for more than half of companies.

The research also provides possible explanations of reasons why food manufacturers are open to RRP implementation. Leading position among those reasons are *better shelf visibility* and *better shelf "position keeping"*, followed by *better product image*. These benefits combine direct rise of shelf visibility and creation of better relationship between brands and consumers, to help with impulse buying and brand positioning at the point of sales. Through these benefits, RRP is transforming from primary packaging into even more effective sales promotions tool. *Better relation with retailers* is benefit in negotiating positions of manufactures towards retailers. Improving negotiating position towards retailers in environment where retailers have dominant role in

supply chain is an important part of trade management creating leverage for example at product listing process, in research this benefit is recognized as *easier start of cooperation with new retailers*.

Finally, from the fact that more than two third of respondents are planning to further increase the RRP share in their assortment it can be concluded that RRP has been accepted in Croatian food manufacturing as a normal business development route, as well as in other countries.

Regarding research limitations, study was conducted only in Croatian companies, and sample does not cover equally all branches of food industry. Regional survey would give a clearer view on retail ready packaging relationships in international food supply chains.

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