

## PRICE AND SERVICE BUNDLING – AN EXAMPLE OF THE TELECOMMUNICATIONS MARKET IN POLAND

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### **Abstract:**

The main objective of this paper is to present the essence of price packages on the example of telecommunications services in Poland. In the theoretical part of article the author pointed out the related definitions that define this pricing tactics, the issue of legality is also highlighted. The author also indicated on benefits of price bundling from the perspective of the buyer and the seller. In the second part of the article secondary sources of information about bundled services were used in order to illustrate scale of price packages application on the market of telecommunications services in Poland. The author analyzed the content of the reports published by the Office of Electronic Communications in Poland (reports from the years 2010-2013). In order to make comparison Poland against other countries in EU, data from the OECD Digital Economy Papers and the European Commission Report were used. Packaged services in Poland are growing in popularity among buyers on telecommunications market. Similarly as in the EU the most popular packages are double -plays, but in Poland dominate fixed services. In view of the changing pattern of consumer - greater requirements, higher level of awareness of their own needs, good orientation with regard to market offer - service providers should put more emphasis on the value of the offered package, not only its price attractiveness. Customers do not expect the lowest prices, they expect offer, the value of which will justify required price.

*Keywords: price bundling, bundled services, telecommunications market in Poland*

## 1. PRICING OF PACKAGES – THEORETICAL BACKGROUND

### 1.1. The essence of price bundling

Bundling - the strategy of marketing two or more products or services as a specially priced package - is a form of nonlinear pricing (Venkatesh & Mahajan, 2009, p. 232). It is when customers are persuaded to buy a package of goods or services rather than a single item. What is important bundled propositions can also move customers up the revenue ladder (Cram, 2006, p. 143). The strategy of bundling is widely used in a variety of industries – ranging from fast foods to high-technology (Chung & Rao, 2003, pp. 115-130). One of the very important issues connected with bundling is risk of cannibalization. Because of this negative phenomenon it is crucial to pay attention to set the right price of the bundle. This price should be lower than the sum price of the independently priced optimized products in order to encourage different customers with different independent product valuations to purchase all products in a single bundle. At the same time this price should be higher than the price of any specific product within the bundle (Smith, 2012, p. 216). The goal of conscious evaluation of the package is to avoid cannibalization. Price bundling can promote the sales of products consumers might not otherwise buy, but the combined price must be low enough to get them to buy the bundle (Armstrong & Kotler, 2011). That type of pricing tactic can be ineffective if a company tries to support the margins of a weak product by pairing it with a high-value one. The overall value of the combined offering must be enhanced to attract consumers (Meehan et al., 2011, p.70-71).

Price bundling is a strategy that benefits from demand heterogeneity – specifically, demand that is contrasting between products. Heterogeneity in demand implies that different customers value different items differently. Contrasting demand heterogeneity implies that different customer segments will hold contrasting viewpoints on the value of specific items within the bundle (Smith, 2012, p. 215). Price bundling is found in many contexts and some examples for this tactic can be related to contrasting demand between segments. A good example is the telecom industry – for technology-oriented customer mobiles and high-speed Internet service are much more important than fixed-line telephone service or subscription television. But more conservative customers pay much more attention to fixed-line telephone service or subscription television and, at the same time, they have little value for mobiles and the Internet. In the article the author presents the scope for using bundled services by Polish consumers in the market of telecommunication services.

In some cases, companies abandon bundling in favor of unbundling. It is when companies offer pre-designed packages of features and services that include components some customers do not need (Winer, 2004, p. 341). Thanks to that solution, customers benefit from a possibility of choosing what they want to pay for. T.T. Nagle and G.E. Cressman Jr. exemplified that it is possible that a company becomes more price competitive because of unbundling (Nagle & Cressman 2002, pp.29-33). It is worth noting that the size of bundling is also very important. On one hand, there are some authors who claim that, in general, the larger the number of goods bundled, the greater the reduction in disparity in willingness to pay (Smith, 2012, p. 216). But on the other hand, managers should keep in mind that too many components in a bundle can cause customers' anxiety and even fear. So as usually, the final decision about the size of the bundle depends on the specific market situation. This issue is even more important if a company concentrates not on price bundling but on product bundling. This term is not a synonym of price bundling. Table 1 presents some important terms connected with bundling.

**Table 1:** Bundling terms

Term	Definition	Examples
Bundling	Bundling is the sale of two or more separate products in one package.	Opera season tickets, multimedia PC.
Price bundling	Price bundling is the sale of two or more separate products as a package at a discount, without any integration of the products.	Luggage sets, variety pack of cereals.
Product bundling	Product bundling is the integration and sale of two or more separate products at any price.	Multimedia PC, sound system.
Pure bundling	Pure bundling is a strategy in which a firm sells only the bundle and not (all) the products separately.	IBM's bundling of tabulating machines and cards.
Mixed bundling	Mixed bundling is a strategy in which a firm sells both the bundle and (all) the products separately.	Telecom bundles.

Source: Stremersch, Tellis, 2002, pp. 55-72.

Citing other researchers T.J. Gilbride et al. indicate that bundling is a device for capturing more consumer surplus by facilitating price discrimination across consumers who differ in their relative preference between two (or more) products (Gilbride et al., 2008, pp. 125-139). In the literature can be found another terms for price bundling: mixed bundling is called optional bundling and pure bundling is called indivisible bundling (Nagle & Holden, 2002, p. 245). From profitability point of view the first type of price bundling seems to be more preferable in situation when for some customers the individual elements of the package have extremely different value.

Distinguishing between price bundling and product bundling is crucial. Product bundling is also referred to as feature bundling and in that type of bundling different features of and benefits of different products are combined into a single multifunctional product. Feature bundling delivers additional value over pure price bundling by combining multiple features of separate products into a single bundled product. T.J. Smith claims that in this case the integral architecture of a feature bundle is itself a source of value (Smith, 2012, p. 215). It is beneficial both for customers - they would receive a higher value, and company – it can achieve higher price with a feature bundle than with a customer buying distinct products.

In practice, mix-bundling is preferred more than versioning or add-on strategies but the following conditions should be fulfilled:

- each product in the bundle has an independent market,
- the markets for each product overlap,
- the consumption of one product does not subtract from the value of consuming the other product,
- the distribution of reservation prices between customers is broad and contrasting with respect to their desire for specific products,
- the marginal costs to produce the products are low (Smith, 2012, p. 219).

## 1.2. The legality of price bundling

G.W. Marshall and M.W. Johnston pay attention to potential dark side of price bundling. In their opinion in some industries it can become unclear just what the regular, or unbundled, price is for a individual component of a package (Marshall & Johnston, 2010, p. 395). It is crucial especially in case of unregulated industries, where unprincipled companies are able to set artificially high prices in order to encourage customers to buy a package.

T.J. Smith points out two key issues with respect to legality of price bundling. First is market power, the author claims that in competitive markets, almost all competitor are free to bundle. But situation is totally different when any single company owns significant market share – in that case bundling is more likely to be legally suspect (even if that company is not a completely monopolist). The second important factor is connected with the actual purpose of offering package to customers (Smith, 2012, p. 224). The question is – whether the bundle adds additional value to customers or it's goals is to block competitors? This author suggests that if it is possible to show that the bundle provides meaningful advantages, this tactics is legal. If not, executive should evaluate actions to mitigate the legal risks of bundling (Smith, 2012, p. 224). Separating price bundling from product bundling is very

important because depending on the type of bundling the risk of law fracture can be different. According to S. Stremersch and G.J. Tellis pure price bundling for such firms is illegal at all times but pure product bundling may be legal if the bundle offers substantial added value to consumers that cannot be achieved when firms sell the bundled products separately. These authors suggest that, faced with these legal constraints, companies with dominant market power may find it optimal to resort to value-added product bundling for long-term benefits rather than to short-term price bundling to gain market share (Stremersch & Tellis, 2002, pp. 55-72).

To summarize, bundling is generally a legally accepted practice, but there are some infrequent but noteworthy examples, when there is huge possibility for negative legal consequences. In addition to legality, price bundling should also be assessed from the perspective of ethical issues. T.T. Nagle and R.K. Holden conjecture that no other area of managerial activity is more difficult to depict accurately, assess fairly and prescribe realistically in terms of morality than the domain of price (Nagle & Holden, 2002, p. 370).

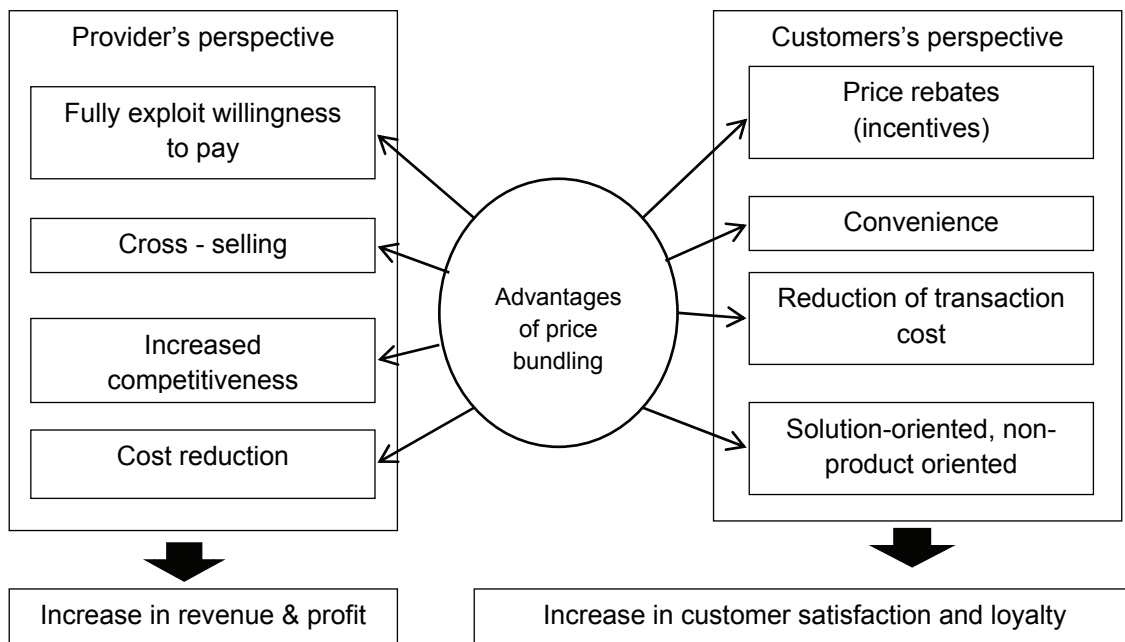
### 1.3. Benefits from price bundling

A growing number of studies on bundling point out the benefits of this strategy. The results of marketing research also indicate that managers should pay more attention to this pricing solution. As Stremersch and Tellis claim, bundling is profitable for a variety of reasons and thus deserves more attention from managers. In these authors' opinion:

- price bundling of existing products may be optimal because it is a form of price discrimination between different consumer groups and because it decreases price sensitivity and increases individual consumers' purchase likelihood;
- services or goods with high development costs—such as high-tech products—generally have more to gain from price bundling than do goods with high marginal costs, such as consumer durables or industrial goods;
- product bundling of existing products may be optimal because it creates added value for consumers, saves costs, and creates differentiation in highly competitive markets;
- bundling a new product with an existing product is an ideal introduction strategy because it allows extraction of more consumer surplus at equal sales levels;
- price bundling will increase the visibility and trial of the new product, which are important in new product adoption by consumers;
- product bundling may also improve consumers' perceptions of the functionality of the new product when it is bundled with existing complements (Stremersch & Tellis, 2002, p. 55-72).

What is also very important, the price bundle reduces the dispersion in willingness to pay by acting as a selective price segmentation hedge between the different market segments, giving each a discount on the specific product that it values less (Smith, 2012, p. 216). It is not surprising that bundling is seen as an intelligent form of price discrimination and increasingly used by many companies in different industries (Wuebker et al., 2008, p. 88). Common use of price bundling due to its mutual benefits (figure 1).

**Figure 1:** Advantages of price bundling



Source: Wuebker et al., 2008, p. 94.

Based on results of their research, B. Foubert and E. Gijsbrecht demonstrate that bundle promotions attract already heavy users from other brands rather than converting nonusers or light users to heavy users (Foubert & Gijsbrecht, 2007, pp. 647-662). T.J. Smith notes that the ability of bundling to appeal selectively to heavy users over light users can have huge effect on profitability if heavy users are disproportionately responsible for purchases. Attracting this category of users to select a manufacturer's brand preferentially and converting heavy users into loyal customers can be a strong long-term profit driver (Smith, 2012, p. 221). B. Foubert and E. Gijsbrecht investigate that bundling is successful at redistributing sales across SKU's, it's turns out to be ineffective at the category level. In other words, the additional sales that appear because of bundle promotions arise from brand switching (influencing what to buy) more than category expansion (how much to buy) (Smith, 2012, p. 221).

At the end of the theoretical discussion it is worth paying more attention to a few factors, the fulfillment of which can significantly contribute to the success of price bundling:

- creating the package (bundle design),
- multi-stage evaluation process for the services/products to be bundled,
- package pricing (optimal price structure and level),
- accounting for regulatory and legal restrictions,
- setting internal requirements,
- management of a complex bundling process
- managers should have necessary knowledge and skills to be able to cope with the all possible difficulties and challenges such as determination of willingness to pay, sizing of customer segments, building simulation and optimization models and dealing with legal issues (Wuebker et al. 2008, p. 95-97).

## **2. POPULARITY OF BUNDLES SERVICES ON THE POLISH TELECOMMUNICATIONS MARKET**

### **2.1. Analysis and results**

#### *Attitude of Polish customers towards service packages*

Consumer surplus is defined as the maximum amount a consumer would have been willing to pay for a good minus its prevailing market price. This extra amount the consumer did not have to pay – but would have been willing to – should direct the consumer's choice in the market and offers an interesting way to compare telecommunication plans. Necessity of purchasing products that are

included in the package but client is not interested in buying it, is one of the important issues during consideration of offer attractiveness. This is due to different valuation of each service - for some services the buyer would be willing to pay even more than their market price, while others have very low utility for a client (Table 2). As a result, more cost-effective may be the acquisition of only one, most valuations services (consumer A), triple play package (consumer B) or two products independently (consumer C).

**Table 2:** Consumer surplus and service selection

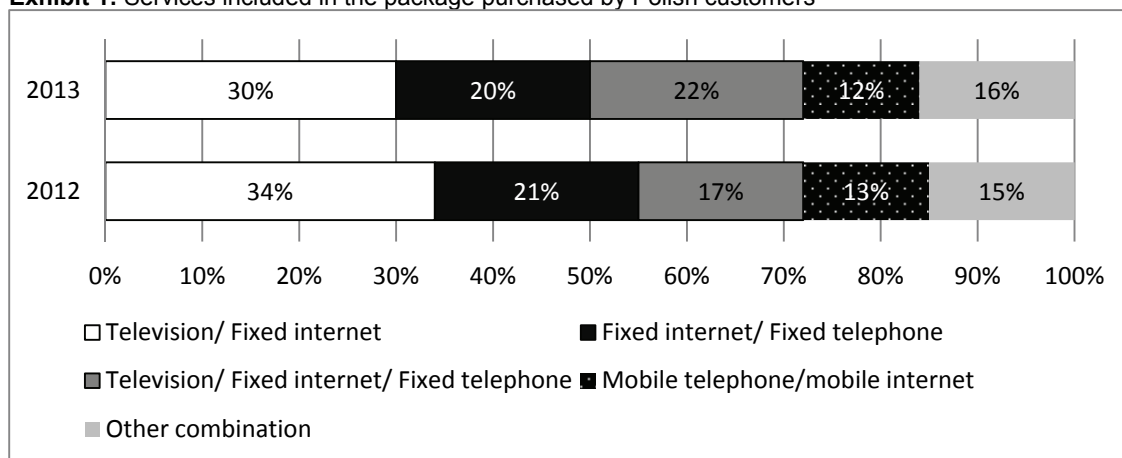
Optimised with a stand-alone service				
	Data (Internet)	Voice (Phone)	Video (TV)	Triple Play
Market Price	20	20	20	50
Value to User A	50	10	15	50+10+15=75
Consumer Surplus of A	+ 30	- 10	-5	+ 25
Optimised with a bundled package				
	Data (Internet)	Voice (Phone)	Video (TV)	Triple Play
Market Price	20	20	20	50
Value to User B	15	30	35	15+30+35=80
Consumer Surplus of B	-5	+10	+15	+30
Optimised with multiple stand-alone services				
	Data (Internet)	Voice (Phone)	Video (TV)	Triple Play
Market Price	20	20	20	50
Value to User C	25	5	30	25+5+30=60
Consumer Surplus of C	+5	-15	+10	+10

Note: The analysis does not include any benefits from integration derived from product bundling.  
 Source: OECD, 2011, p. 22-23.

The concept of consumer surplus explains why a high level of attractiveness of the service package is not so obvious for potential buyers. Consumers take into consideration not only the opportunity to acquire a cost-effective package but also issues of the usefulness of the its individual components. The three scenarios show that while the combination package can be welfare optimizing in some situations, one or several stand-alone services may be better options in others.

According to the Office of Electronic Communications, in 2013 about one in five people in general population in Poland used the packaged services - the most popular type of offer is double play (UKE, 2013, p.139). It is worth noting that in the packages acquired by Polish consumers dominate fixed services (exhibit 1).

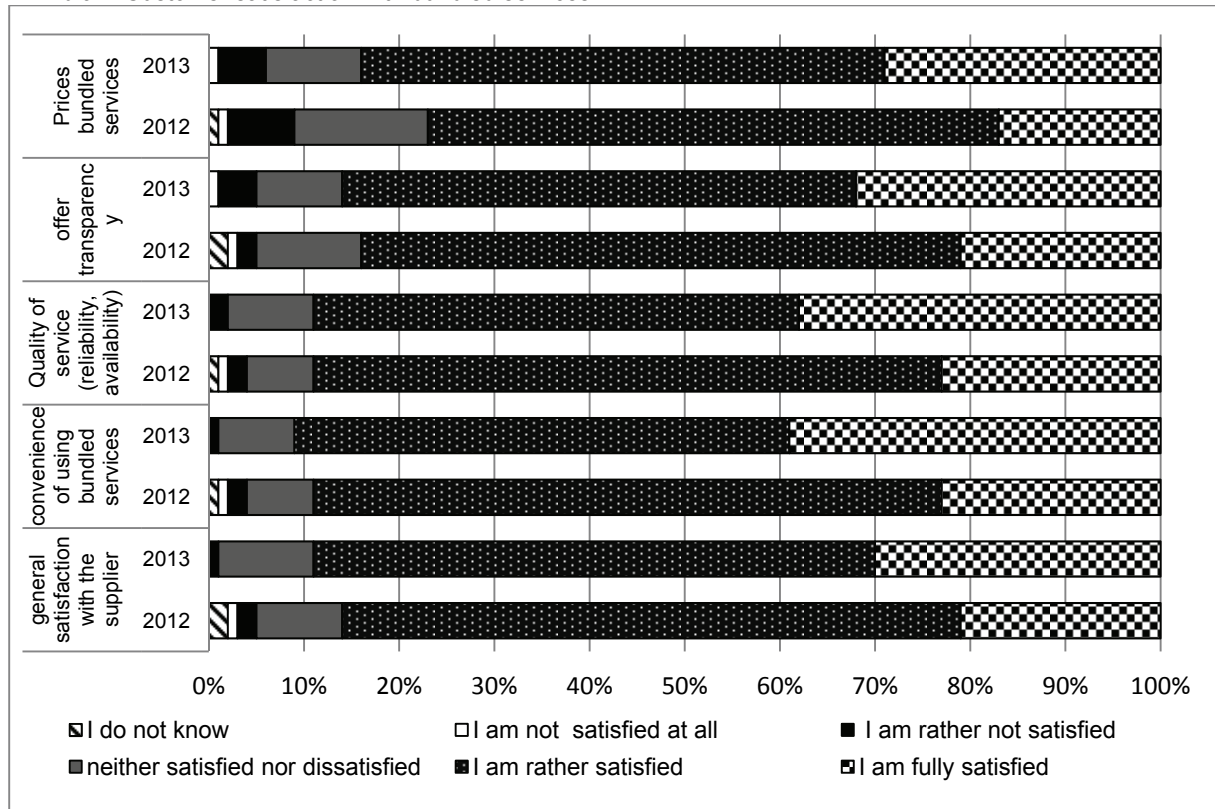
**Exhibit 1:** Services included in the package purchased by Polish customers



Source: Based on UKE, 2011, 2012b, 2013.

Customer satisfaction is undoubtedly one of the main factors shaping her/his relationship with the supplier. The special significance of this issue is in the service market, mainly due to the nature of services. As it was presented in the first part of the article, packages provide benefits for both buyers and sellers. There is no doubt that the main tangible benefit for the purchaser of the package is the lower price and convenience (only one bill to pay, cooperation with a single supplier, etc.). Exhibit 2 presents customers' opinions about the essential elements of the offer.

**Exhibit 2:** Customer satisfaction with bundled services



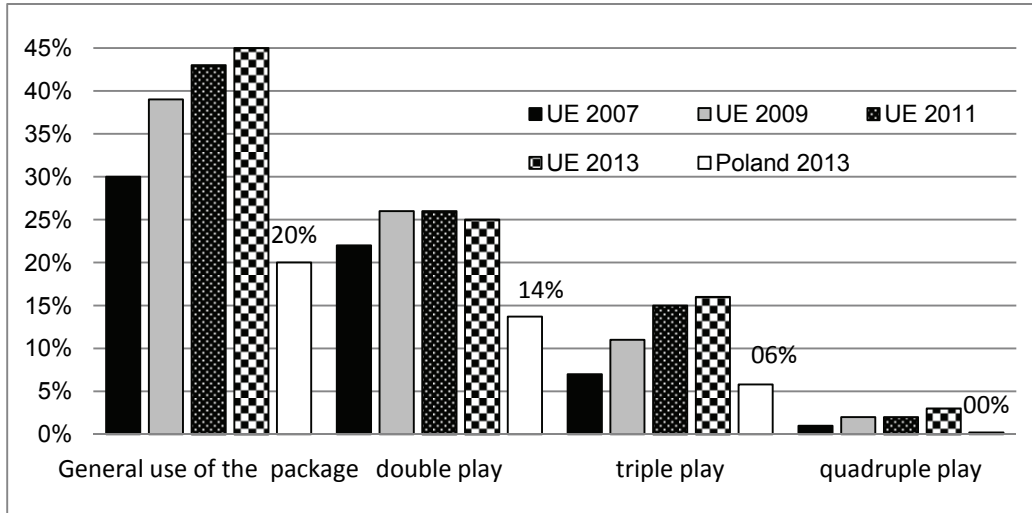
Source: Based on UKE, 2012b, 2013.

In the last two years there have been no major changes in the assessment of service packages. The greatest shift occurred in the area of positive feedback - increased number of fully satisfied customers for partially satisfied with the dimension of the offer.

*Comparison Poland with other countries*

As it was mentioned, Polish consumers prefer double play packages – nearly 80% of buyers chose this type of package (UKE, 2012b, p. 8). In terms of preferences Poland does not differ from European trends in the choice of the package.

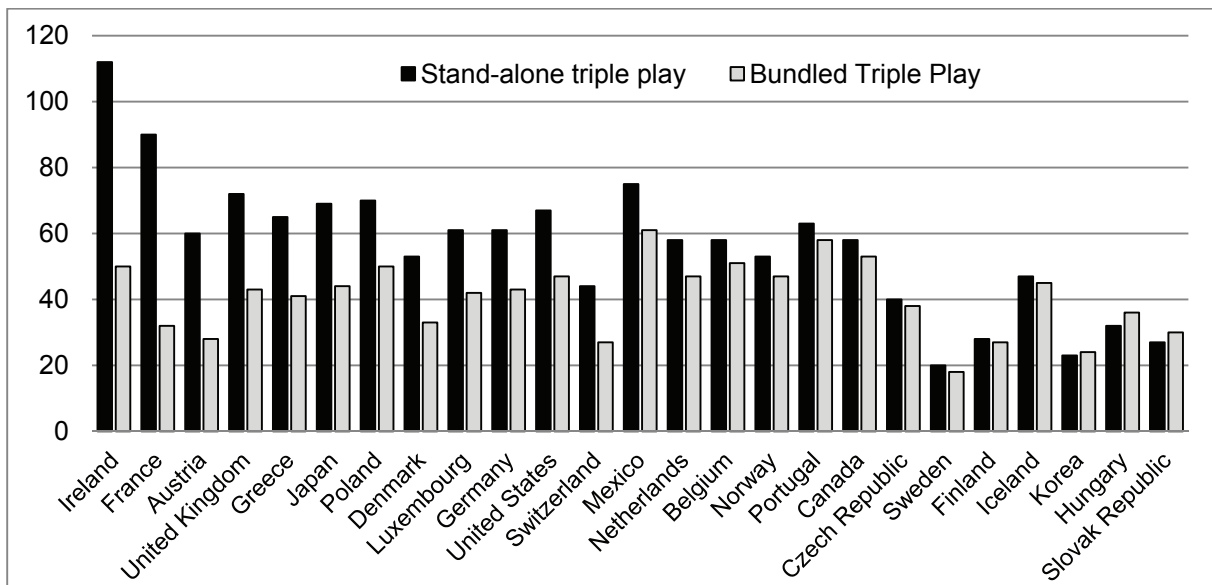
**Exhibit 3: Using of bundled services – Poland against EU**



Source: Based on UKE 2013, UKE 2012a, EC 2013.

What is true in Poland is twice less interest in packet services, but, as in other EU countries, double play offers and triple play are very popular, and still a very small group of customers is willing to purchase a combined four services (quadruple play). Exhibit 4 shows the extent of the discounting by comparing the minimum price for a triple-play package in the market with mixed and matched stand-alone offers of video, voice and data across all operators in the country.

**Exhibit 3: Comparison of minimum prices for video/voice/data if purchased separately and as a bundle of services (USD PPP per month, October 2009)**



Source: OECD, 2011.

Each data point represents the lowest price in the market, from any operator, for a video, voice or data service. The lowest prices for stand-alone services from all operators are combined to form a trio of services which is compared to the bundled price. It is worth noting that the following list includes not only the EU member countries. It is easy to notice the attractiveness of the prices of telecommunications services packages – in some countries, the price of the package does not exceed even 50% of the prices of individual components of the package purchased separately. In only three countries (included in this comparison) more profitable for the customer is purchasing individual services, due to the high price of the package.



## 2.2. Conclusion, further research and implications

The goal of the article is to present the essence of price packages on the example of telecommunications services in Poland. Undoubtedly price solution discussed in the article has many benefits for both the buyer and the receiver of service package. Particular advantages reflected in increasing in revenue and profits (from one side) and in customer satisfaction and loyalty (from the other side).

Popularity of bundled services is reflected by the growing the number of subscribers and generated revenues for suppliers. Polish consumers frequently use the double play options, what is important these service packages are still dominated by the fixed services. Undoubtedly, one of the main incentives to use the service package is attractive price level. Prices for packages of telecommunications services on the Polish market are in the range including the cheapest deals in the European Union. This does not change the fact that for some customers the price is still not at a satisfactory level. According to the author it is impossible to develop the offer, the price of which would meet the needs of all current and potential buyers. Contrary to appearances, consumers do not expect the lowest prices, they expect such a package of services, the value of which will justify required price. The author believes that, despite the attractive price, a package of services should not be constructed on the basis of price, but on the basis of the value proposition for the buyer. It is crucial to understand that price should not be source of competitive advantage. Instead of price, providers should compete on usefulness of individual components of the package - the customers will not pay even a very low price for a package that includes services useless for them. Contemporary customer has a good orientation with regard to the market offer, and has clearly defined expectations. What is more, customers know their rights, and are also aware that a privileged position relative to sellers. For this reason it is necessary for suppliers to transfer their focus from the price to the utility of the individual elements of the packages, and the transparency of their pricing. Sellers should be aware that there is a change in the way in which consumers evaluate the available products. Growing expectations demand side pose a significant challenge to the supply side. The author argues that the excessive focus on price as a differentiator may result in fragile foundations of loyalty. Such a situation occurs when customers use a particular service provider until the appearance of a cheaper competitor. No other features of the offer (other than price) do not encourage consumers to continue using the package of services.

Reports that were used in the article do not address fully issues of service packages. According to the author there should be focus more attention to the number of customers who have resigned from using the service packages and the reasons for that kind of decision. It is also important to analyze the relationship between the degree of satisfaction of Polish customers with using packages of telecommunications services and the number of providers of such services. The telecommunications services market in Poland is dominated by a few major players. This may have important implications for the actual degree of convergence of the available market offer with buyers expectations.

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