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*Service Bundling from the Perspective of the Customer*

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Pakietyzacja usług z perspektywy konsumenta

**Keywords:** services bundling, services package, customer behavior, competitiveness.

**Słowa kluczowe:** pakietyzacja usług, zachowania konsumentów, konkurencyjność.

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## Introduction

There are a few different definitions of bundling in the literature. No one disputes that bundling means selling separated products or services in the packages. But because of different forms of bundling strategy it can be define as follows (Stremersch, Tellis, 2002, p. 57):

- Price bundling – the sale of two or more separate products as a package at a discount, without any integration of the product.
- Product bundling – the integration and sale of two or more separate products at any price.
- Pure bundling – the strategy in which a firm sells only the bundle and not (all) the products separately.
- Mixed bundling – the strategy in which a firm sells both the bundle and (all) the products separately.

The researchers suggest that the choice between two strategies – pure and mix bundling – depends on the so-called reservation price (also walk-away price), which is

the highest level of prices accepted by the consumer (Ferrer *et al.*, 2010, p. 197). Smith defines (2012, p. 215) product bundling as a features bundling – disparate features and benefits of different products are combined into a single multifunctional product. This type of bundling delivers additional value over pure price bundling by combining multiple features of distinct products into a single bundled products. An interesting solution is also customized bundling which is a kind of common ground between mixed and pure bundling variant (Wu *et al.*, 2008, p. 609). Venkatesh and Mahajan (2009, p. 232) note that, although certain seminal papers on bundling are over four decades old, the growth of high technology, e-commerce and competition has continually given new meaning to bundling. According to these authors, the rationales for bundling or unbundling come from the firm side, demand or consumer side and competitor side. Products or services may be composed and included in the bundle in various ways. The services and products may be reinforcing (mobile phone and mobile Internet), complementary (mobile Internet and mobile devices), unrelated (mobile Internet and cable television), or competing (mobile Internet and cable/stationary Internet) (Bouwman *et al.*, 2007, p. 22). People are more likely to purchase complementary products with similar or unrelated products in one package (Harlam *et al.*, 1995, p. 64). Bundle price discount has a positive effect on purchase but bundle size is negatively correlated with the likelihood that users will purchase it (Bouwman *et al.*, 2007, p. 26). People would rather prefer larger bundles relatively seldom because their price exceeds maximum price, which they are willing to pay for this type of services. Yan *et al.* suggest that success in bundling strategy is defined by three components: price discount, degree of product complementarity and advertising (2014, p. 52). Advertising compensates to some extent the complementarity of products, but with the increasing market even in the case of high complementarity of products it allows to achieve a higher profits.

Benefits of bundling for the suppliers may be divided into three broad groups (Sheikhzadeh, Elahi 2013, p. 210):

- benefits from price discrimination,
- cost saving mechanism,
- a means of entry deterrence.

An interesting summary of price bundling benefits is also presented by Wuebker *et al.* (2008, p. 94). Product bundling is generally more profitable than selling a separate single product when customer value for two products are negatively dependent. It means that high value of one product is associated with low values for the other one (Chen, Riordan, 2013, p. 36). Discount offering for the bundle, even relatively small in relation to the sum of individual pricing of separately sold products may attract more customers to packages. Discount reduces profit from selling bundled product but it increases profit from the bundle purchase while not too many customers purchase both single products. Chen and Riordan reveal also that the multiproduct monopolist achieves higher profit from mixed bundling also when products are independent or even have limited positive dependence. Profitability of bundling may be reduced by high marginal cost. In this case, marginal cost reduces the surplus that

can be captured by the bundle (Chen, Riordan, 2013, p. 44). From the customer's point of view, product packages can lead to higher consumption. Consumers increase their consumption under two mechanisms: lower perceived unit cost and larger supply (de Pechpeyrou, 2013, p. 712). It leads to no savings in the end. Although the study focused on food products, it seems to affect services as well.

Some authors suggest that bundling strategy should not concentrate on the basis of price but on the basis of value for customer (Bondos, 2014, p. 435). Price should not be the source of competitive advantage. The crucial factors for selling bundled services is usefulness of individual components of the package. Suppliers should focus on the utility of the services and transparency of their pricing. Not without a reason, bundling is known as the price method based on the offer value (value-based pricing) (Rautio *et al.*, 2007, p. 46).

## 1. Aim of the article

Bundling is one of the main strategies in telecommunications sector. In fact, bundling provides an opportunity for growth by introducing new products while minimizing the churn rate of a previous product (Chan-Olmsted, Guo 2011, p. 78). Mix-bundling strategy allows customers to choose between separate products or the package: cable phone, mobile phone, mobile Internet, cable Internet, cable TV. As if that was not enough, telecom companies are beginning to offer financial services and even electricity, which in is soon likely to join mix-bundling. Sales package supports strong marketing activities such as, for example, discounts, pricing promotions, free equipment. It seems that mixed bundling is a thought-out long-term value strategy.

The aim of the publication is to answer the following research questions:

1. What kind of services do consumers buy in a package?
2. What determines the attractiveness of a service package to customers?
3. Is it possible to enlarge a package of services?
4. What increases customer loyalty to the supplier?

To answer the questions above, the research with PAPI method has been done. 250 people were questioned with standardized questionnaire. The sample consisted of graduate students who had more than one service purchased in the same telecom company in their households. This approach is due to the fact that some of the services purchased in packages are used by several people in one household. Purchase of a package is not the only way to use multiple services on a single supplier for the household. The data was collected in the second half of 2014.

## 2. Customers of telecommunications companies and their evaluation of bundled services

Twenty five percent of respondents declared that they purchased a package of services from the service provider, while 75% of respondents indicated that they use a few services from the same provider, which were acquired in a different way

than in a bundle. Thirty one percent of respondents claimed that they have several contracts for various services in a household, 29.5% confirmed that they bought new services for those which were used earlier, 10.5% use more than one service of one provider because the merged previously independent companies, and 8.9% moved some used service to one provider. It is worth noting that the effects of such behaviour are often similar to the purchase of services as a bundle. Customers receive more favourable conditions of purchase because they already use other services from the same company. As a result, in many ways customers use multiple services from the same provider without immediately deciding to purchase the package by buying other services in the same company. In effect, customers use multiple services from the same provider but do not necessarily decide about purchasing the package of services.

The average number of services purchased in the package is four. Top sellers in the packages are: mobile phone, landline Internet, cable/satellite TV and mobile Internet. Two of these services are negatively correlated – cable and mobile Internet (Pearson's correlation coefficient -0.312,  $p < 0.05$ ). The most popular package consists of two contracts for mobile phone, one cable Internet, and one on cable/satellite TV. In this case in telecom companies, households buy the same services in the package (or complementary such as mobile phone and mobile internet) or not related services. But they all have something in common: the transmission of video, sound, or data.

In order to examine the perceived attractiveness of the service package, respondents assessed ten specified factors in the five-point Likert scale. Then, exploratory factor analysis was conducted, the results of which are presented in Table 1.

Table 1. Exploratory factors analysis rotated factors matrix (principal components analysis, varimax rotation)

Attractiveness factors of service bundling	Factor 1	Factor 2	Factor 3	Factor 4
Lower price for services bundling than for separated services.	0.771			
Lower price than competition offers for the same services.	0.744			
The amount in the bill does not exceed the amount specified in the contract.	0.663			
While extending the contract I can reduce the price of the package.	0.525			
Before the end of the contract I can replace a device with a new one.		0.815		
I can buy a device to the services at a lower price.		0.775		
Shorter duration of the contract.		0.712		
Without consequences I can terminate the contract for any service from the package of services.			0.901	
Without consequences I can terminate the contract for a service package.			0.867	
During the first three months I have a lower price.				0.858

Source: author's own calculations

Exploratory factors analysis identifies four main factors of package attractiveness. The first one is lower price, the second – benefit from the device, third – independence, and fourth – price promotions. These factors show how to increase the attractiveness of the service packages. For some people less commitment to the supplier is more valuable than lower price of the package. Such offers do not exist on the

Polish telecommunications market yet and research confirms that there is a group of customers who value their independence, the ability to opt out of the whole package or one service at any time.

### 3. The future of service packages

Recently, apart from their standard offer, telecom companies have begun to offer customers other services, such as financial services or electricity. The motivation for such a strategy was the fact that, on the one hand the company holds a giant customers base, on the other hand, network economy and ICT technology minimize marginal sales cost of any goods to already known recipients. The respondents were asked a question about the likelihood of buying new services from the same supplier. Declared probability of buying additional services from the same supplier in case of bundled service buyers were, in case of traditional communication services each time lower than that of other respondents. But only in the case of mobile Internet, these differences were statistically significant (test U Mann-Whitney,  $p < 0.05$ ). However, in the case of new unusual services, package buyers are each time more likely to purchase, but the differences were not statistically significant. It is worth noting that the interest in purchasing services unrelated to communication services is negligible (e.g. financial services, commodities, healthcare, travel). Package buyers demonstrate greater interest in purchase of the additional new services unrelated to communication from existing providers but also in to a very small extend.

The probability of the services churn was measured in seven grades scale in which only the extreme positions were described: 1 – certainly I will not change the supplier, 7 – certainly I will change the supplier. The relationship between the propensity to service churn and the extent of service package use is presented in Figure 1.

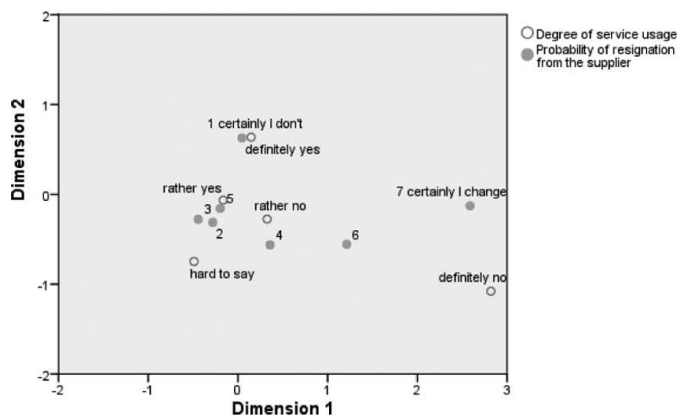


Figure 1. Correspondent analysis – propensity to services churn and the extend of using services package

Source: author's own calculations

Studies show that loyalty to the service provider is related to the degree of usage of services that make up the package. The more respondents use the services package, the less they are likely to switch the supplier. This conclusion may have practical implications. Suppliers should not add additional services to the package – services that the consumer does not need. This may in fact increase customer dissatisfaction. This observation confirms the need to search for the package value to consumers rather than price advantage. Similarly, the lack of the possibility to offer high and low product values in one package must be thought through as it would be beneficial only to the supplier.

It is also worth paying attention to the link between the tendency to abandon the services and time of package use. Figure 2 presents this relationship.

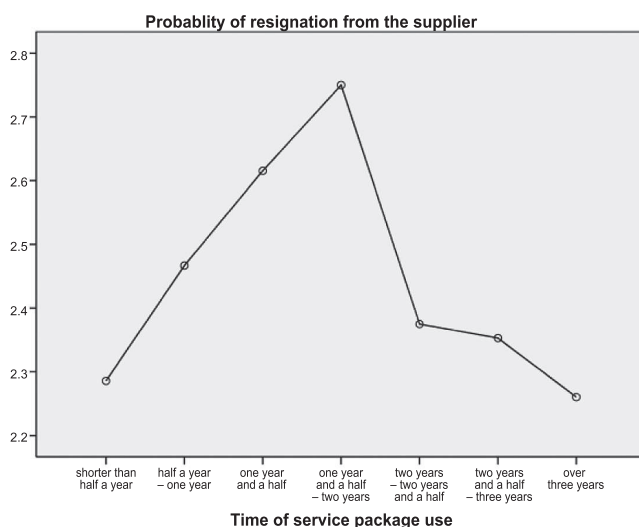


Figure 2. Propensity to service churn and time of using service packages

Source: author's own calculations

The tendency to abandon the services is the highest between the first and second year of package using. This is probably related to the 24-month duration of the majority of contracts between the company and customer. During this time, consumer cannot resolve the contract. These results reveal a tendency to change the service provider before the end of the two-year period. After that date, the probability of resignation is clearly declining. It appears to be a very good strategy to offer additional incentives to the customer before the end of the two-year contract that may increase the loyalty of buyers.

## Conclusions

Recently, the number of offers of services sold in packages has increased. Very often mix bundling services are proposed by company in the telecommunications

market. This includes an even wider variety of services. Not only telephone, Internet, TV but also bank accounts, insurance, and even purchase electricity are proposed. Studies have confirmed that a quarter of customers using multiple services on a single supplier purchase them in the package. The average customer buys a package of four services. The most common are the mobile phone, Internet and cable TV. In the case of a mobile phone, it is often more than one contract. Consumers are interested in purchasing complementary and unrelated services in a package but only if extra services are not significantly different from the existing company competencies.

The attractiveness of service packages is related to its low / lower price, cheaper devices, the possibility of resignation from the package / any of the services in package at any time and price promotions. The probability of loyalty to the service provider increases when the buyer makes full usage of all the services that are in the package. It is also crucial to encourage the client to use the service package before the end of the two-year contract. After this time, the tendency to abandon services is explicitly declining.

Based on research results, it is possible to formulate several important practical implications for telecommunications companies:

- it will be very difficult to extend mix bundling beyond telecommunication market;
- services (even free) which the client does not need should not be offered in a package;
- the motivation for some customers to purchase the mix bundling may be the possibility to freely shape it at any time;
- service providers should pay particular attention to the loyalty of consumers who use the services during the period of one to two years.

The studies have several limitations. Firstly, the problem of service bundling is a relatively new phenomenon that is still developing and not all respondents were able to identify this phenomenon. Secondly, expansion service packages for unrelated services just appeared on the market. Therefore, it is difficult to state whether such an offer will meet with consumer acceptance in a long run.

## References

1. Bondos I., *Price and services bundling – an example on the telecommunications market in Poland*, Human Capital without Borders: Knowledge and Learning for the Quality of Life, Proceedings.
2. Bouwman H., Haaker T., De Vos H., *Mobile service bundles: The example of navigation services*, Electronic Market, 2007, Vol. 17.  
<http://dx.doi.org/10.1080/10196780601136757>
3. Chan-Olmsted S., Guo M., *Strategic bundling of telecommunications services: Triple play strategies in the cable TV and telephone industry*, Journal of Media Business Studies, 2011, Vol. 8.
4. Chen Y., Riordan M.H., *Profitability of product bundling*, International Economic Review, 2013, Vol. 54, No. 1.  
<http://dx.doi.org/10.1111/j.1468-2354.2012.00725.x>

5. de Pechpeyrou P., *Virtual bundling with quantity discounts: When low purchase price does not lead to smart-shopper feelings*, Psychology and Marketing, 2013, Vol. 30.  
<http://dx.doi.org/10.1002/mar.20639>
6. Ferrer J.C., Mora H., Olivares F., *On pricing of multiple bundles of products and services*, European Journal of Operational Research, 2010, Vol. 206.  
<http://dx.doi.org/10.1016/j.ejor.2010.02.007>
7. Harlam B.A., Krishna A., Lehmann D.R., Mela C., *Impact of bundle type, price framing and familiarity on purchase intention for the bundle*, Journal of Business Research, 1995, Vol. 33.  
[http://dx.doi.org/10.1016/0148-2963\(94\)00014-6](http://dx.doi.org/10.1016/0148-2963(94)00014-6)
8. Rautio T., Anttila M., Tuominen M., *Bundling of information goods: a value driver for new mobile TV services*, International Journal of Revenue Management, 2007, Vol. 1.  
<http://dx.doi.org/10.1504/IJRM.2007.011193>
9. Sheikhzadeh M., Elahi E., *Product bundling: Impacts of product heterogeneity and risk considerations*, International Journal Production Economics, 2013, Vol. 144.  
<http://dx.doi.org/10.1016/j.ijpe.2013.02.006>
10. Smith T.J., *Pricing Strategy. Setting Price Levels, Managing Price Discounts, & Establishing Price Structures*, South-Western Cengage Learning, Mason, 2012.
11. Stremersch S., Tellis G.J., *Strategic bundling of products and prices: A new synthesis for marketing*, Journal of Marketing, 2002, Vol. 66.  
<http://dx.doi.org/10.1509/jmkg.66.1.55.18455>
12. Venkatesh R., Mahajan V., *The Design and Pricing of Bundles: a Review of Normative Guidelines and Practical Approaches*. In V.R. Rao (Ed.), Handbook of Pricing Research in Marketing, Edward Elgar: Northampton, 2009.  
<http://dx.doi.org/10.4337/9781848447448.00020>
13. Wu S., Hitt L.M., Chen P., Anandalingam G., *Customized bundle pricing for information goods: a nonlinear mixed-integer programming approach*, Management Science, 2008, Vol. 54, No. 3.  
<http://dx.doi.org/10.1287/mnsc.1070.0812>
14. Wuebker G., Baumgartner, J., Schmidt-Gallas, D., Koderisch, M., *Price Management in Financial Services. Smart Strategies for Growth*, Gover: Hampshire, 2008.
15. Yan R., Meyers C., Wang J., Ghose S., *Bundling products to success: The influence of complementarity and advertising*, Journal of Retailing and Consumer Services, 2014, Vol. 21.  
<http://dx.doi.org/10.1016/j.jretconser.2013.07.007>

### **Service Bundling from the Perspective of the Customer**

Abstract. The service bundling is one of the main strategies in telecommunications sector. In fact, bundling provides an opportunity for growth by introducing new products while minimizing the churn rate of a previous product. The article describes what services consumers buy in a package and what prompts them to buy. Paper also presents the results of research on the expansion of packages. Factors which have influence on consumer's (purchaser's service package) loyalty are also indicated in the article.

### **Pakietyzacja usług z perspektywy konsumenta**

Abstrakt. Pakietyzacja usług jest jedną z głównych strategii sektora telekomunikacyjnego. W rzeczywistości sprzedaż wiązana daje okazję do rozwoju poprzez wprowadzenie nowych produktów, przy jednoczesnej minimalizacji wskaźnika utraty klientów wcześniej oferowanych produktów. Artykuł opisuje, jakie usługi konsumenci najczęściej kupują w pakiecie i co skłania ich do zakupu. Przedstawia również wyniki badań na temat możliwej ekspansji pakietów na nowe usługi. Tekst wskazuje również czynniki, które mają wpływ na lojalność konsumentów (nabywcy pakietu usług).