
2.1 Introduction

The purpose of this chapter is to discuss the influence of the Internet on the value to customer. In the first part the notion of value to customer and its determinants will be presented. These determiners include: value offered to customers by companies, price levels, and non-financial customer costs. As a part of relationship with customers, companies provide them with the value proposition in exchange for the stream of customer-generated values. Classification of the both types of values will be presented in this chapter.

The focus of the subsequent part of the chapter will be on factors which influence Internet-based value proposition, that is: product virtualisation, value co-creation, perception of experience as a value to customer, and network effects. As the summary of the chapter, five strategies of Internet-based competition through value to customers will be discussed.

2.2 Value to Customer in the Context of Exchange

2.2.1 Concept of Value to Customer

According to Kotler and Keller (2009: 5), marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering and freely exchanging products and services of value with others

The value exchange between the company and the customer was described by Miller and Lewis (1991). They state that a value exchange model should not focus solely on the economic aspect, but incorporate all kinds of values (economic, social, psychological, etc.). Similarly, Bagozzi (1975) affirms that value exchange, apart from material values, includes also nonmaterial and symbolic values.

The perception of the relationship between the customer and the company as an exchange process draws from the sociological theory of exchange. According to

Homans, the founder of the exchange theory, social behaviour is an exchange of material and nonmaterial goods, during which a person aims not only at the profit maximisation, but also seeks the state of balance between their costs, inputs, and profits, and the profits of other participants (Szacki, 2002: 838–841).

In recent publications, the problem of value exchange is perceived also through the prism of the so-called value networks, i.e. networks between companies, which enable information flow and privileged relationships, by means of which cooperation on the process of creation and delivery of value to customers becomes possible (Szymura-Tyc, 2006: 47). The problem was equally analysed by Porter, who formulated the notion of value systems, i.e. systems including a wide repertoire of actions that integrate value chains of many companies (Porter 2006: 16, 204). It should be also noted that value exchange involves all the company's stakeholders (Miller & Lewis, 1991). Nevertheless, in this paper, the problem of value exchange will be perceived solely from the perspective of the relationship between the company and the customer.

In the exchange process, the companies provide customers with a set (proposition, stream, bundle) of benefits (constituent values),¹ in exchange receiving customer-generated values. Customers supply the company with such values as incomes, recommendations, information, etc.

It is believed (Miller & Lewis, 1991: 66) that the notion of value to customer was introduced by Drucker in the work entitled *The Practice of Management*, published in 1954 (Drucker, 1993:54). From that moment on, the notion of value to customer, both in literal as well as in similar forms, started to appear in publications on marketing and management (Payne & Holt, 2001). It is worth mentioning, that the term *customer value* may be interpreted in several ways, e.g. as value to customer (customer perceived value or customer received value) and as the customer's value to company (value of the customer, customer lifetime value) (Smith & Colgate, 2007).

The linguistic ambiguity is also reflected in the term's definitions. Woodruff perceives value for customer as 'customer's perceived preference for, and evaluation of, those product attributes, attribute performances, and consequences arising from use that facilitates [...] achieving the customer's goals and purposes in use situations' (Smith & Colgate, 2007). It is a very extensive definition, since it relies on both pre- and postconsumption benefits. Values for customer may be of emotional or cognitive nature, and may be associated with product attributes, use and consequences (Smith & Colgate, 2007). Hoolbrook provides a rather abstract definition of value for customer, perceived as 'interactive, relativistic preference and experience' (Smith & Colgate, 2007). Nevertheless, Smith and Colgate (2007) state that this definition captures some of the key characteristic of value for

¹ As already mentioned, there is an alternative approach which relates to the concept called *service dominant logic*. According to it, companies do not create "value to customer", but only "value proposition", which can be accepted or rejected by customers. The value is then created by customers themselves during the consumption act.

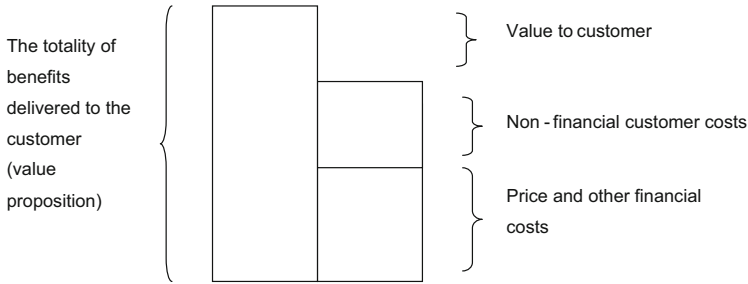


Fig. 2.1 Value to customer as a division of benefits delivered to customers. Source: own work

customer, for it is perceived uniquely by a given customer; it is contextual, for it depends on the product, the consumer and situation; and it is dynamic, for it changes over time. Value for customer is a perceived value, since customers care only for the value they perceived and not the value that they have actually acquired (Szymura-Tyc, 2006: 76).

The notion of value for customer is similar to the notion of utility applied in microeconomics. “Utility” means the capacity of a given good to fulfil one’s needs and may be perceived in terms of subjective pleasure or usefulness that a person derives from consuming a good or service (Samuelson & Nordhaus, 1994). The notion of utility does not include, however, the costs of product purchase and refers solely to the benefits that may be gained by customers after purchasing the product.

In this paper, the value to customer is perceived as benefits obtained by the customer from the company through an exchange process, reduced by the price paid by the customer and incurred transaction costs (Szymura-Tyc, 2006: 57). The price associated with the exchange is the determiner of the value division between customers and the company (see Fig. 2.1). The customer incurs also non-financial costs.² The category of non-financial costs borne by the customer includes transaction costs (costs associated with entering into transaction, e.g. costs of information acquisition and processing, costs of transaction starting and monitoring, and costs of execution of obligations) and other costs associated with consumption or its consequences (e.g. loss of prestige). Non-financial customer costs may be equally perceived from the perspective of perceived risk, time spent on acquiring given value or effort put in the proceedings (e.g. the necessity to relocate, negative emotions).

Therefore, value to customer may be perceived as a sum of benefits (constituent values) reduced by the price and non-financial customer costs. The inclusion of non-financial customer costs in the model of value to customer is important, for it gives a wider perspective on the criteria of the customer decision making process, which is particularly important on the Internet, where the exchange frequently takes

²For simplification, other financial costs associated with value acquisition will not be taken into account.

non-monetary form. A definition formulated in such a way implies that the company may increase the final value to customer by augmenting delivered benefits, or by decreasing prices or reducing non-financial costs. Moreover, sometimes the company may increase prices without any harm to the level of value to customer, provided that it is able to reduce non-financial costs generated by them. Such a dependency was observed in the case of online auctions, where the sellers of higher reputation, seen as the number of positive comments made by their past customers, frequently offer products for higher prices (Obłój & Obłój, 2006). A detailed description of this phenomenon may be found in the chapter on price strategies.

Simplicity may be perceived as one of the main advantages of such an approach towards value to customer. Nevertheless, it does not facilitate measuring the exact level of value delivered to the customer, since (as it was already said) value for customer is subjective, contextual, and changes with time. Consequently, it should be stressed that changes introduced in the value proposition delivered to customers and price modifications may lead to various changes in the final value to different customers.

Some elements of the aforementioned model of value to customer have been empirically proven. The research conducted by Chen and Dubinsky proved that the valence of online shopping experience is positively correlated with the perceived customer value (the correlation was 0.31). On the other hand, product price was negatively associated with perceived customer value and the correlation amounted to -0.39 (Cai & Xu, 2004).

It seems justified to present an alternative approach, in which value to customer is presented as the ratio of the acquired benefits to costs a buyer incurs (Payne & Holt, 2001). An argument for application of this model is the presentation of offers from the perspective of relationship between quality and price, typically employed in modern economy. On the other hand, this approach cannot be applied for assessment of free products, therefore it will not be utilised in this paper. If the approach is used to assess the value to customer of an online article and which provides the reader with a certain benefit and is available for free which is associated with low transaction costs (time spent on a few clicks), it will come into evidence that the value for customer is disproportionately high, which results from properties of dividing by small, close to zero numbers.

A related concept is value proposition. According to Payne and Frow (2014), it is an organisation's offering to customers, representing a promise of benefits of value that customers will receive during and after the usage experience. It identifies both product and experiential benefits and costs (or sacrifices) that result from the relationship between customer and organisation.

2.2.2 Categorisation of Constituent Values to Customer

The categorisation of constituent values, perceived as benefits resulting from the relationship with the company and altogether constituting the entire value proposition, seems of particular importance. Just as in the case of the definition of the

notion, categorisations of values to customers are numerous and may be employed in the company's offer analysis. Hence, it seems logical to apply various categorisations, based on the sector in which a given company operates.

The simplest categorisation of values to customer includes functional and symbolic values. Functional values are associated with the basic use of the product for fulfilment of the basic customer need. Symbolic values reflect, manifest or influence customer's lifestyle, views, or personality. More elaborate classification incorporate also emotional and social values.

Dobiegała-Korona elaborated a different categorisation of values delivered to the customer by means of modern marketing (Dobiegała-Korona & Doligalski, 2004: 15):

1. Value of purpose—capability to fulfil the customer's needs or solve their problems;
2. Value of form—proper shape, ergonomics, size, style, colour, functionality, and equipment;
3. Value of time—availability of product or service in time convenient for the customer;
4. Value of place—delivery of products to a place convenient for effectuating purchases;
5. Value of property—convenient transfer of property rights;
6. Value of communication—providing customers with information and knowledge about a product, place and terms of acquisition, as well as the ability to receive customer's feedback regarding their needs, preferences, and reactions to the company's marketing actions;
7. Value of brand experience—delivery of sensory, emotional, cognitive, behavioural, and relationship values that complete functional values.

The categorisation presented above served as a basis for a classification of constituent values (benefits) offered to customers by means of the Internet. There are no significant differences between the two approaches, nevertheless, a separate classification of constituent values delivered via Internet to a greater extent underlines the specificity of this medium:

1. Value of purpose;
2. Value of communication;
3. Value of convenience;
4. Value of experience;
5. Value of individualisation;
6. Value of affinity;
7. Value of time;
8. Value of security.

Value of purpose is associated with the company's capability to fulfil customers' needs in conformance with their expectations. In fact, the application of the Internet

in customer relationships does not have a significant impact on the goal value, since customers' needs to a large extent remain the same. The exception may occur when a company creates or shapes customers' needs, as well as when the development of the Internet contributed to the appearance of new customer needs, or changed the existing ones.

Value of communication is provided by companies to the customers both in traditional and Internet-based relationships. In the second case, however, the role of communication increases significantly, which results from the lack of direct contacts between the company and the customer. Compared to traditional model of communication, the role of customers is of greater importance. Communication is not limited to two-sided information exchange between customers and the company's employees. Communication takes a three-sided form, since the customer communicates also with other customers (consumers, users), which may have an important impact on their purchase decisions. Possibilities of faster actualisation, however, are accompanied by customers' expectation, who believe that the obtained information are up to date. Just as in traditional economy, communication may be associated with informative functions, but may also serve as a means of customer education.

The place value, which appears in traditional economy and which is associated with the necessity to travel a certain distance, loses its importance and becomes replaced with *value of convenience*. This category is comprised of a series of benefits of the possibility to initiate and then continue the relationship with a company without any significant problems. Value of convenience may be perceived through the prism of lowering non-financial customer costs (transaction and other non-financial costs).

Moreover, the Internet offers companies a possibility to build customer relationship based on customer *experience*. Evoking desired experience in customers may rely on providing values of aesthetic, entertainment, or education kind, as well as on involving customers in actions in which they show interest. Therefore, experience value corresponds to form value presented in the precedent classification.

The application of the Internet in customer relationships gives a wider range of possibilities of adjusting value propositions to customers' individual needs. *Individualisation* may take form of in-depth or superficial modification of value proposition (c.f. mass customisation).

The category that has significantly gained in importance with the increasing role of the Internet is *value of affinity*, which stems from the growing facilitation of entering into interactions with other users. Benefits related to becoming a member of various consumer groups may include e.g. knowledge of product use, identification with a group, and development of interpersonal bonds.

The change of the role of time among other benefits offered to customer seems of particular interest. *Value of time* has a very important meaning in customer relationships. It must be guaranteed in order to avoid customer dissatisfaction, nevertheless provision of time value does not have to necessarily satisfy the customer. It stems from the fact that a properly functioning website or fast response of customer service department are expected by the customer, which, when

delivered, do not increase their satisfaction. Competing through value of time may help to gain an important market position, especially when it comes to complex processes, such as product development and market introduction.

Compared to traditional economy, the role of *value of security* increases significantly on the Internet, which results from an increased level of customer perceived risk (Schlosser, White, & Lloyd, 2006). Internet solutions, such as the possibility to pay by credit card, do not necessarily involve a higher risk than offline transactions, nevertheless they are perceived as more dangerous. Hence, security value, which results from minimisation of customer perceived risk becomes one of the benefits that the company must take into consideration while designing value proposition.

The values that are particularly difficult to transmit via Internet are *prestige* and *luxury*. It results from the fact that usually online products and services display a democratised character and are not associated with limited access, typical for prestigious and luxury goods. It is particularly visible in advertisement exchange, where the goods are offered for free in exchange for the possibility to display advertisements. The boundary of high fees, typical for luxury goods, in this case does not exist. The integration of luxury branding within the Internet is possible, nevertheless companies seem sceptical of such proceedings (Okonkwo, 2008). Products and services associated with the Internet are usually utilitarian in their character, therefore present an opposition to luxury goods, which deliver higher value for a much higher prices.

Attempts at assigning value categories to particular kinds of products are associated with a high risk of mistake. It may be noted, however, that the values of purpose goal, communication, security, and convenience dominate in complex goods, the purchase of which is associated with considerable customer involvement. These constituent values are of equal importance to institutional customers. When it comes to low-involvement products and products reflecting a given lifestyle or customer's beliefs, experience and affinity values become dominant elements of the value proposition.

It seems interesting to present another approach to categorisation of Internet-based benefits. Joo discerned following key components of customer value in e-business: economy, convenience, speed, personalisation, community, emotion, and trust. Anckar et al. proposed another classification of benefits delivered by an online grocery store. The authors discerned: competitive prices, broad and specialised assortment, superior shopping convenience, and superior customer service (Joo, 2007: 53; Ratchford, 2009).

2.2.3 Pricing Strategies on the Internet

Price level is one of the determinants of non-financial customer costs. In this part, various aspects of pricing strategies on the Internet will be described. These are: factors influencing price levels on the Internet, specific character of delivering free-of-charge products and services, dependencies between seller's credibility and offered prices, dynamic price differentiation, and algorithmic trading.

Ratchford enumerates *factors influencing price levels on the Internet*. According to the researcher, greater price transparency leads to reduction of prices (Ratchford, 2009). Price transparency makes it easier to compare prices, which is associated with low costs of price comparison in different shops, aggregation of sellers in one place (e.g. as one online auction), and availability of mechanisms that compare prices offered by various sellers. Another factor that helps to reduce prices is a large number of available suppliers, who, when it comes to national transactions, cannot compete by company localisation. Marginal role of company localisation as a source of value to customers contributes to increasing of importance of price as a competitive factor.

Some factors may contribute to price augmentation: diversified level of reputation exhibited by sellers, switching costs, and the necessity to pay fees to intermediaries, such as online auctions or price comparison services. Moreover, material products are also associated with delivery costs.

Switching costs, in the case of online stores, may be associated with trust invested in a given store, customers' habits or reluctance to bear costs of learning how to shop in other stores, etc. High switching costs may result in higher costs of customer acquisition and higher prices offered to customers on subsequent stages of the relationship developed with the company. Such type of strategy in form of price differentiation was employed by Amazon.com, which in 2000 started to offer lower prices for DVDs to new customers than to existing ones (Stone, 2000). When the case became publicised, the company abandoned the idea, arguing that it was merely a random price test, in which no customer demographic data were used. Moreover, Amazon.com returned its customers the overpaid sum, which on average amounted to USD 3.10.

Despite of increased price transparency, Internet is equally associated with important *price differentiation*. According to Ratchford, it results from differences in sellers' reputation, costs of finding offers by customers, and differences in offers themselves. Differences in search costs incurred by customers are associated with their cognitive aptitudes, experience in using the Internet, etc.

A popular price strategy employed on the Internet consists in offering services or products *without any charge*. In a monograph entitled *Free—The Future of a Radical Price*, Ch. Anderson presents five situations in which such actions are undertaken: direct cross-subsiding, operations as multi-sided platforms, employing the freemium model, offering demonstrative versions of products, and operations on nonmonetary markets (Anderson, 2009).

Direct cross-subsidies appear when a customer receives some products for free but has to pay for other ones. On the Internet, this *modus operandi* is frequently employed by online stores, which offer free delivery, usually when the price of goods exceeds a certain level. In such a situation, money gained by the seller should easily cover the price of the delivery.

Free benefits may be also offered by *multi-sided platform*, a company generating profits based on at least two groups of customers (Anderson calls it a three-party system). In the case of online portals, the first group consists of users who benefit from free services, such as articles, e-mail accounts, search engines, etc. The other

group is comprised of advertisers, who pay for the possibility to reach the portal's users with their promotional messages. In such a situation, the free value strategy aims at acquiring customers of a given profile, who will serve as a basis for the company to acquire benefits from the other group (i.e. advertisers).

Another method consists in offering basic benefits for free and charging users for more attractive ones. This strategy is frequently referred to as the *freemium strategy*, the name of which was coined from two words—free and premium (Heires, 2006; Niculescu & Wu, 2011). From the company's perspective, such type of strategy may seem particularly attractive, since it gives a possibility to acquire a considerable number of free users, and help to make the company's brand more recognisable. Moreover, it may generate revenues, or even profits, if a company is able to encourage the customers to use the premium solutions. Unfortunately, in practice, the model relying on the assumption that premium users will be able to support regular customers does not always work out. The main problem is to elaborate a set of premium solutions for which the customers benefiting from free solutions will be willing to pay. Another factor that makes it difficult to employ such a strategy is customers' unwillingness to pay for online contents and services. Anderson admits that in the freemium model, only 5 % of customers pay for the services, the remaining 95 % being free customers. That means for every user who pays for the premium version of the site, 19 others get the basic free version (Anderson does not provide any examples for, nor sources of this statement). The freemium strategy is frequently used by social networking services, such as Fotka.pl. The majority of the offered features is for free, except for an additional service called "the star". It gives the possibility to distinguish a user's profile with a star symbol and to make use of some additional functionalities. According to Rafał Agnieszczak, the founder of the website, only about 1 % of its users decided to purchase the star package, generating about 30 % of the total income of the company. The remaining income comes from advertisers.³

A similar model of offering certain benefits for free relies on providing *demonstrative versions of products*. In the case of books it may be associated with the possibility to read only some of its pages, in the case of music—to listen to the beginning of musical compositions, and in the case of software—to use a time- or functionally-limited versions of the product. This strategy is employed mainly to help customers choose products best tailored to their needs. To a certain extent, this method is similar to the freemium strategy, nevertheless one may find several important differences between those two approaches. Demonstrative versions of products, just as free samples used on traditional markets, are meant to promote paid services and thus encourage customers to buy full versions of products. From the point of view of consumption, demonstrative versions do not present any important value. In the freemium model, free benefits are often characterised by considerable attractiveness and are able to satisfy the needs of many customers.

³ Information provided by Fotka.pl on 2012.04.18.

Furthermore, in the freemium model, it is the premium customers that support free users, who may employ the company's services without the necessity of paying.

The strategy of free benefits may equally manifest on the so-called *nonmonetary markets*, i.e. markets that allow value exchange which is not associated with monetary exchange nor cross-subsidies. This strategy is employed e.g. by authors publishing their works, or other types of contents, on the Internet and offering free access for other users. In exchange, they gain such benefits as reputation, feedback or recommendations. Publication of free contents may equally stream from altruism, which motivates users to quasi-anonymously edit Wikipedia entries or to use the processing power of their computers to help develop a given project. According to Anderson, nonmonetary market may be also based on labour exchange: in order to gain access to particular contents, users have to do some kind of work, e.g. solve Captchas. Another example of nonmonetary market may be provided by piracy, i.e. a situation when digital products are used illegally, with infringement to copyrights.

An element which seems particularly important from the perspective of online pricing strategy is the *correlation between the seller's reputation and prices*. In the article *Diminishing Returns from Reputation: Do Followers Have a Competitive Advantage?*, Obłój and Obłój presented how the sellers' reputation can influence the price of their transactions on internet auctions. The authors measured the level of reputation by analyzing all feedback received by the seller. Reputation perceived in that way may increase the level of mutual trust. The study showed that the sellers with higher reputation could sell their product at higher prices. Nevertheless, the final increase in price associated with the seller's high reputation started to diminish. It may mean that investing in reputation can bring benefits, but the benefits related with reputation increase slower than the reputation itself (Obłój & Obłój, 2006). The results of the research seem to prove the conclusions from the model of value to customer, according to which customers take into consideration not only the price of a product, but also non-financial costs, such as the risk associated with the lack of trust for the seller. Earning customers' trust, which results in decreasing of non-financial costs, allows to increase the product price while maintaining the same value to customer.

In the article entitled *The Digitization of Word of Mouth*, Dellarocas comes to similar conclusions. The author compares various research on the feedback mechanism employed by the eBay auction website, which aims at limiting information asymmetry of the potential customers. The presented research shows that the seller's reputation has a positive influence both on the product's price and likelihood of purchase. Even though more detailed conclusions of the presented research often seem to be contradictive, one of the most frequently appearing opinions is that the impact of the seller's reputation is bigger in the case of products associated with higher risk or with higher price. However, the question of the probable influence of customers' negative opinions still raises controversies. Some researchers quoted by the author believe that they can have a negative influence on the price of transaction, other think that such a correlation appears only in the case of second hand products. Finally, there are researchers who do not believe in existence of such an

interconnection. Moreover, Dellarocas calls into question the effectiveness of eBay's feedback mechanism, since over 99 % of the opinions are positive (Dellarocas, 2003). This problem seems to be more universal, as the dominance of positive assessment can be observed also in the case of a Polish online auction—Allegro.pl (Allegro.pl: <http://www.allegro.pl/>, viewed, 2014).

The results suggesting an equivocal influence of sellers' reputation on prices of transactions correlate with the conclusions reached by Bapna, Jank, and Shmueli (2008). The authors took into consideration many more parameters, such as for example auction duration (bidding time). It was observed that in auctions with high-rated sellers these are the longer auctions that enable to achieve higher price levels. On the other hand, low-rated sellers may achieve higher price levels by short auctions. In the case of high-rated sellers, there is a positive correlation between the auction duration and the price level. These results may be explained by means of transaction cost theory: a longer lasting auction gives better access to information, and therefore enhances the decision-making process.

A similar observation on the lack of immutable correlation between the price and the seller's reputation was equally made by Liu, Wei and Chen, who conducted a research on a Chinese online marketplace Taobao.com. The results proved that high reputation sellers attract experienced consumers, who by nature are more price sensitive. On the other hand, low reputation retailers are more likely to charge higher prices, targeting less experienced or more naive customers. Consequently, the correlation between seller's reputation and price of the offered goods is different than it was showed by the results of the researches quoted above. What is the reason of differences in pricing strategies exhibited by various online shopping services? Search costs associated with shopping at Taobao.com may be higher because of different information architecture, different availability of search tools, and overwhelming number of offers. Hence, the assumption that transactional costs on electronic marketplaces are significantly lower in this case does not seem valid (Liu, Wei, & Chen, 2009).

An interesting innovation in the scope of pricing strategies is the so-called *group buying* (collective buying), which relies on offering given products at prices that are often 50 % off the original retail prices. In the recent years, such kind of shopping has gained in popularity, which in consequence led to the appearance of many companies that started to imitate the original group buying model introduced by Groupon.

Such undertakings operate as multi-sided platforms. They serve two groups of customers: consumers, willing to purchase products or services at attractive prices, and companies offering goods. Value proposition offered to customers includes the possibility to buy a narrow range of goods at significantly reduced prices. In order to take part in such a promotion, the customer has to constantly monitor the list of current promotions and make fast, almost impulsive, decisions. Nevertheless, it is not necessarily associated with higher transactional cost, at least in the case of customers, who start to perceive offer monitoring as a kind of ritual, for the participation in which they are awarded with a possibility to buy goods at attractive prices. The situation seems more complex when it comes to the other group of

customers—the merchants. They can benefit from discount voucher service by price discrimination (differentiation) and advertising (Edelman, Jaffe, & Kominers, 2011). In this context, price discrimination means the possibility to offer much lower prices to the consumers who up to now have not been interested in the company's products or services. Discount voucher services may equally help to advertise the seller's products. Usually, customers buy goods at 50 % of their actual price. Another 25 % of the standard price is the fee charged by the service. Consequently, the company sells its goods for 25 % of the standard price. Hence, the question on profitability of such undertakings seems particularly justified.

Such kind of promotional actions are of greater use to the companies with dominant fixed costs, in which variable costs associated with servicing of particular customers are not pronounced. Attractiveness of such kind of actions increases if the company has at its disposal unemployed productive forces, the costs of which—due to high level fixed costs—it has to bear, regardless of the situation. Such is the case of services that require an expensive infrastructure, e.g. hotels, cinemas, cruises, or swimming pools. In a reverse situation, when variable costs prevail, the attractiveness of such actions decreases. The research proved that a large number of restaurant owners were not satisfied with such type of promotion (Dholakia, 2010), since the majority of customers acquired in such a way was characterised as disloyal and unwilling to purchase products not included in promotion (i.e. high-profit products). The research also showed that the promotion was profitable for 66 % and unprofitable for 32 % of respondents. Moreover, the percentage of merchants who reported that the promotion was unprofitable was the highest among restaurants and amounted to 42 %.

According to the respondents, promotional campaigns of such kind are aimed at customers who display transactional approach and are unwilling to engage in a long-lasting relationship with a company. Group buying, however, may be used to sell additional product at standard prices (cross-selling), especially by companies without a recognizable brand.

Furthermore, the use of Internet and new technologies in marketing enables *dynamic price discrimination*, i.e. charging customers with different prices for the same products, the level of price being set automatically, based on such variables as product availability, customers' interest, the amount of time to use the offer, or the price level of competitive offers.

Dynamic price discrimination is usually employed in the case of easily defined goods, with high level of standardisation, which lose in value with time (e.g. airline tickets, travels, hotel services). A typical example may be provided by airline tickets, the price of which depends on the number of seats left and time of departure, and by online auctions, on which the price level is conditional upon offers to purchase.

On financial markets, a phenomenon similar to dynamic price discrimination exists. It is the so-called *algorithmic trading* (high frequency trading), which consists in using algorithms to place sell and buy orders, mainly for shares and derivatives, in specified conditions. In practice, it is mainly used for making ultrafast transactions (sources mention one million operations per second), which,

according to some researchers, may lead to increasing market instability and therefore entail unexpected market crashes (Hendershott, Jones, & Menkveld, 2011; Matusiak, 2012).

An interesting example of using algorithmic trading may be provided by Amazon.com. The company sells books, but it also gives a possibility to other entities to sell books, mainly used, by means of its platform. In order to increase value to the sellers, the company utilises dynamic price discrimination by employing various kinds of algorithms. In April 2011, a blogger described an interesting situation: a book on insect biology entitled *The Making of a Fly* was offered by one of the sellers for USD 23 million (exactly USD 23 698 655.93), while another user wanted to sell it for about USD 18 million (exactly USD 18 651 718.08) (Eisen, 2011). Why was the price so high? A new book was offered by two sellers, who determined the price according to the offer made by the competitive seller. One of them probably set the price to reflect 98 % of the price offered by the competitor, the other—to reflect 127 % of the price of the first one. With each iteration, the prices increased until they reached the level described above. After that, the price was probably manually corrected to the level of about USD 100. One should also ponder on the pricing strategies employed by both sellers. Offering products at a slightly lower price than the competitor seems understandable. The strategy used by the other seller seems more interesting. The possibility to offer products at a higher price may be associated with a higher level of reputation. In this case it cannot be seen as a key factor, since both sellers exhibited a similar reputation level (i.e. how the seller was rated by buyers). Therefore, it seems even more justified to ask how high the level of reputation must be in order to encourage customers to pay a price which is 27 % higher. It seems plausible to assume that the seller with the higher price did not have the book, which he was willing to sell, and the 27 % higher price was designed to cover the costs of buying the book from the competitor and other arising costs (delivery, etc).

2.2.4 Transaction Costs of a Customer on the Internet

One of the determinants of value to customer are the non-financial costs, including transaction costs and other non-financial, consumption-associated expenses arising after conclusion of a transaction.

According to Williamson, transaction costs are comparative costs of planning, adaptation and supervision of tasks assigned to various governance structures. Transaction costs may be described as costs relative to concluding a transaction (Williamson, 1985), however does not include the price of the good being purchased (in the case of buying), but the sum of monetary and non-monetary costs, which have to be incurred in order to conclude the transaction. It should be stressed that transaction costs appear on both buyer's and seller's side.

The customer's participation in the purchase process is related to following types of transaction costs: *the costs of need identification*, which are relatively low in the case of the purchase of a convenience product, but significantly increase e.g. when

it comes to identification of the needs of a company in the scope of an IT system. Another stage consists in *translating customer's needs into product parameters*. The next stage are *the search costs* associated with the search for information on products able to satisfy the needs and on suppliers offering such products. After selecting a supplier or a group of suppliers, the customer has to incur communication and negotiation costs. If the transaction is structured as a purchase of valuable goods, associated with high risk and being of importance to the customer, they are more willing to bear *transaction security costs*, e.g. manifesting in hiring a lawyer or taking out insurance. The next group of costs are *the ordering costs*, which include both financial (e.g. commissions on payment) and non-financial fees (e.g. identifying the supplier's transactional solutions and adjusting to them). Subsequently, the customer has to incur *the reception cost*, associated with transport, but also with verification, whether they have received the expected benefits. Their absence may generate additional *costs of enforcing the value*, expected by the customer, but not received from the supplier. Additionally, *the costs of product learning* and the costs of adjustment of the product to the users' needs may appear.

The transaction costs incurred before effectuating the transaction, i.e. the costs of preparation and the cost leading to execution of the transaction, are referred to as *the coordination costs*. Finally, the costs appearing after conclusion of the transaction, related to execution of the terms of the transaction, are called *the motivation costs* (Williamson, 1979). It is assumed that the coordination costs appear as a product of bounded rationality (e.g. stemming from information asymmetry) and the motivation costs appear as a manifestation of opportunism.

Williamson (1985) discerned two behavioural assumptions, influencing the transaction costs, i.e. bounded rationality and opportunism. *Bounded rationality* consists in making non-optimal decisions, being a result of limited information possessed by customers, taking into consideration solely short-term aspects, acting under the influence of emotion, etc. *Opportunism* is a condition of self-interest seeking with detriment to the other party.

The transaction cost level is also influenced by such factors as asset specificity, uncertainty and transaction frequency. *Asset specificity* is defined as the necessity to make particular investments or actions, which are applicable solely in relation with one particular supplier. *Uncertainty* is the degree to which the subject can not anticipate the results of actions made by itself or by other subjects. According to Williamson, uncertainty has the strongest influence on the transaction costs and *transaction frequency*—the weakest (Williamson, 1985).

In the majority of studies related to the subject of transaction costs, the authors tend to employ the notion of “uncertainty”, nevertheless in the following part of this paper, the notion of customer risk associated with a relationship with a company will be used. It describes all the possible undesired situations which may occur as an effect of maintaining a relationship with a company. From the customer's perspective, Internet-based company relationships display a higher level of risk than relationships founded on direct contact. It does not come as a surprise, since a higher risk is equally perceived in the case of other impersonal marketing channels,

Table 2.1 Classification of perceived customer risk, according to its source

Perceived risk facet	Description
Cognitive complexity risk	Making of non-optimal decisions resulting from impossibility to analyse and assess available information (<i>vide</i> bounded rationality)
Company risk	Losses resulting from the company’s dishonesty or neglect
Technological risk	Losses resulting from malfunctioning or improper use of a particular technology
Third party risk	Losses resulting from the actions performed by the third party, such as cyber criminals
Risk of choosing a wrong standard	Losses resulting from limited functionality caused by technological limitations of the applied standard

Source: Own work

such as catalogue sales, mail order, or telephone sales (Forsythe, Liu, Shannon, & Gardner, 2006).

It should be also noted that the customer’s risk related to a relationship with a company through Internet is frequently regarded as the risk associated with the purchases effectuated by the customer via Internet. In fact, product purchase is just an element of a broadly perceived customer’s Internet activity. Apart from buying products, customers use the Internet to communicate, browse information, find amusement and also to perform more complex actions, such as financial asset management, ticket booking or learning. In many cases, the customer becomes involved in a value co-creation process. Higher involvement in the relationship with the company increases the probability of an unwanted situation occurring, i.e. a raise of the customer’s risk.

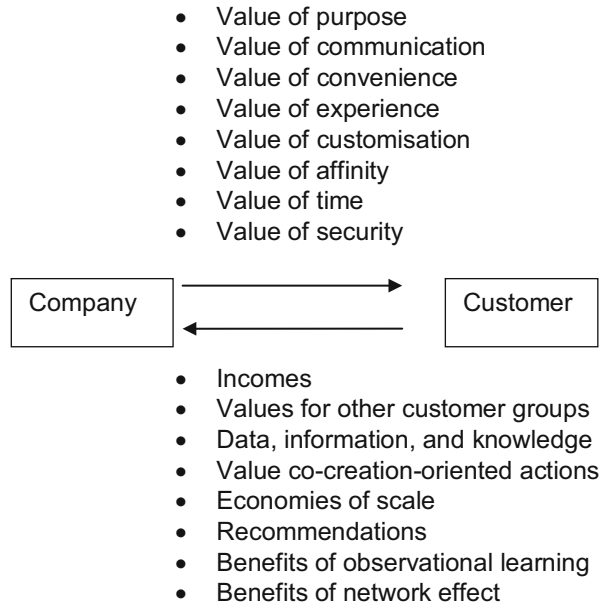
In the following table, the risks associated with Internet-based relations with a broadly perceived environment are classified according to their possible causes (Table 2.1).

2.2.5 Customer-Generated Values

In the value exchange process, the company provides the customer with a set of values (benefits), receiving in exchange customer-generated values (c.f. Fig. 2.2). In this paper, values offered the company by customers fall into two categories. The first category includes values delivered directly to the company, such as incomes; values for other customer groups; data, information and knowledge; value co-creation-oriented actions; economies of scale. The second category is comprised of values that are generated also by other—current or potential—customers, such as recommendations, observational learning, or benefits of network effect.

One of the most important benefits provided by the customer to the company are *cash incomes*. They have an influence on the company’s profitability and liquidity and help the company to generate values for remaining stakeholders, such as employees, suppliers, and shareholders.

Fig. 2.2 The scope of value exchange between the company and the customer on the Internet. Source: own work



Apart from cash incomes, customers deliver additional benefits by making use of free services offered by the company and thereby increasing *values for other customer groups* (e.g. advertisers), which use paid services offered by the company, revolving around the free customers. A model of value creation for the company based on two groups of customers is frequently observed in modern economy in form of the so-called multi-sided platforms.

Another customer-generated category of values are *data, information, and knowledge* transferred to the company. Apart from data that have to be transferred in order to enter into transaction, the company receives information on the customers' needs and preferences, previous product-brought experience, etc. Information and knowledge acquired from customers may contribute to creation and implementation of innovations. In the recent years, the idea of co-operation with customers for the development of innovations has gained in popularity and became the subject of numerous publications (Ulwick, 2002).

Moreover, customers may *actively participate in the value co-creation process*. Value co-creation takes place when customers adjust value proposition to their own needs (c.f. mass customisation), or to the needs of other users. In this case, benefits for the company include savings associated with actions undertaken by customers, who define their own needs, translate them into product parameters, and take the risk of losses which may arise from wrong product decisions.

Customers who purchase the company's products not only generate cash incomes, but also contribute to the creation of *economies of scale*. Such economies are especially produced when in the totality of product manufacturing costs, fixed costs prevail. Hence, an increase in production helps to divide fixed costs between a constantly increasing number of products and thereby contributes to diminution of

unit costs associated with product manufacturing. Economies of scale are typical for the industrial sector, but they also appear in e-business undertakings.

Another important type of value delivered by the customers are *recommendations*. Owing to recommendations, the information on the company's offer reaches potential customers by means of informal communication channels. It should be noted that if recommendations are spontaneous and are not a result of the so-called viral marketing, they help to acquire new customers or promote the company's image without generating additional costs for the company. Obviously, the company does not control content of such type, which may be also negative and harmful to the company's image, as well as contribute to increasing customer acquisition costs.

A category similar to recommendations are *benefits of observational learning*. Observational learning relies on changing the behaviour of a customer under the influence of the action or consequences of actions taken by other consumers, without the knowledge of their motivations. When it comes to customers of online stores, observational learning may take place based on the analysis of the most frequently purchased products, or products bought together with a given item (Chen, Wang, & Xie, 2011). Image benefits associated with observational learning appear when a company strengthens its image by informing other customers that it cooperates with a particular entity. It is common for the institutional market, on which the company's potential and credibility are assessed through the prism of the customers it services.

Another category of values generated by customers are *benefits of network effect*, i.e. a situation in which value for customer increases with the number of customers served by the company. Such a phenomenon frequently appears e.g. in the online auction sector, for which the size and quality of the customer portfolio is the main determiner of the value to buyers and sellers. Customers that decide to use a product associated with network effects increase its attractiveness for other potential customers.

2.2.6 Types of Internet-Based Value Exchange Between the Company and the Customer

For the purposes of this paper, the author distinguishes three types of Internet-based value exchange between the company and the customer: initial exchange, advertising exchange, and monetary exchange.

Initial exchange is employed by traditional companies that use the Internet to enter in contact with customers and then develop the relationship in a traditional manner, without the use of the Internet. The main goal of this type of exchange is to provide potential and current customers with information on the company and its products and to ensure efficient communication. Apart from communication, the company also supplies customers with security benefits by developing its image of a trustworthy entity and by that minimising the customer-perceived risk of entering into relationship. By reduction of transactional costs, customers increase their value

to the company. Reduction of transactional costs results from better knowledge of the company's offer, self-selection of potential customers, and more effective use of the communication channels e.g. by placing orders via e-mail. Additional benefits that may be gained by the company are the loyalty of customers, who become used to the provided products and services, and the knowledge of the company's brand.

Within the scope of *advertising exchange*, the company provides customers with free contents (articles, audio and video files) or services (e-mail accounts, search engines, possibility to publish contents). In exchange, the customers become recipients of the advertisements broadcast by the company, thereby increasing value for the other group of the company's customers—the advertisers. This model is commonly employed on the Internet, mainly by content publishing companies (e.g. online editions of newspapers), sites enabling content publishing (e.g. youtube.com), or search engines (e.g. google.com).

Monetary exchange relies on providing customers with benefits in exchange for monetary incomes they generate. Such a type of exchange is used by online stores and other entities delivering paid services in form of content (e.g. newspaper archives, music files) or services (banks, brokerage houses, hosting companies). It is equally employed by e-commerce platforms acting as intermediaries, drawing profits from commissions (e.g. online auctions).

Many entities combine various forms of exchange. Online portals supply customers with free products and services (advertising exchange), at the same time offering benefits for which customers have to pay (services related with internet access and telecommunication, services associated with selling other products or services).

The aforementioned types of exchange exist also in traditional economy. The most common one is the monetary exchange. In traditional economy, advertising exchange appears less frequently, employed e.g. by media companies, or entities that offer free services for the possibility to broadcast advertisements. Such is also the case of initial exchange, which in traditional economy is based on such communication tools as newspaper advertisements. In the communication process, these tools are employed to encourage customers to enter into contact with the company, in order to develop the relationship.

2.3 Product Virtualisation

The focus of the following part of the chapter will be on factors shaping value propositions offered to the customers, associated with product virtualisation, value co-creation, introducing experience as a value to customer, and network effects. The first factor that has an impact on the shape of value propositions offered to the customers is the product (or service) virtualisation. It includes two processes, namely product digitalisation and product enrichment in information.

2.3.1 Product Digitalisation

Product digitalisation can be defined as the process of complete or partial transformation of a material product into a digital one, i.e. ‘changing atoms to bits’. This process may be effectuated in various ways. In the case of airlines, for example, digitalisation concerns only a part of the product, that is the ticket, which ceases to exist in a traditional material form, transforms into a digital information and becomes a part of information system. Services relating to computer hardware, as well as aircraft services, require the existence of material infrastructure. However, some components of the product, such as drivers, i.e. computer software assuring the correct functioning of the device, does not exist in material form.

Fully digitalised products (also referred to as e-products or digital products) are characterised by non-existent marginal costs. This means that the costs of product manufacturing are incurred only once, and the costs of creation of successive copies of the product are non-existent (or close to zero). Digitalised products may be easily diffused by means of the Internet, which helps to reduce customer-encountered transactional costs (such as time and effort). Full digitalisation may also mean a complete transformation of a product. Such is the case of musical compositions which were previously inseparably connected to data storage devices (CDs, cassettes, etc.). Digital music recording, e.g. in the form of mp3 files, helps to completely detach the value to customer from traditional storage devices. At the same time the digitalised product cannot be used without a proper material infrastructure allowing to provide the customer with the given value.

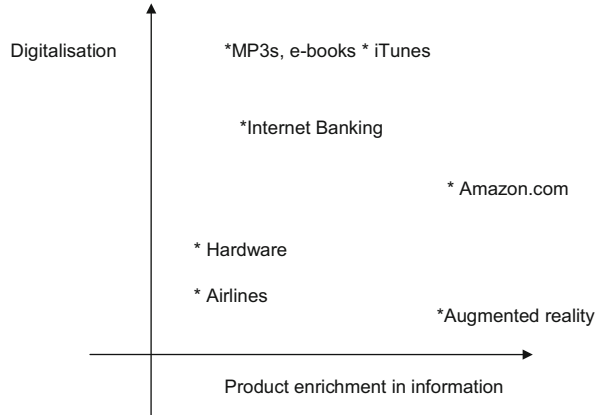
A notion frequently applied in a similar context is the one of e-service (digital service) which can be defined as service rendered in a fully automated manner, by means of information technologies (without human intervention), consisting in data sending and receiving (e.g. via Internet), carried out remotely, by an individual request of the ordering party, and responding to their specific order or demand (web.gov.pl, 2011). As examples of e-service are online banking, online auctions, online payment systems, search engines, online games, Internet tools (e.g. for tasking), online statistics, Internet portals, and online newspaper editions.

2.3.2 Product Enrichment in Information

Another type of virtualisation is the product (or service) enrichment in information. The product does not necessary have to change its physical form, but can be provided with information which will increase its value. The enrichment in information is the most common type of product transformation. It enables the companies to introduce new services which satisfy customers’ needs in a more effective way. This strategy is employed e.g. by delivery companies, which give their customers the possibility to trace the current position of their consignments.

Quite frequently, product digitalisation and enrichment in information appear jointly (Fig. 2.3). The internet store Amazon.com virtualises its products, mainly by enriching them in information. Besides usual information on products, Amazon.

Fig. 2.3 Possible uses of product virtualisation.
Source: own work



com gives access to product reviews and customer product evaluations. Moreover, based on the analysis of the customers' behaviour and product choice, the Amazon webpage displays the information about related products, such as for example other products purchased by the customers who bought a given product

Amazon.com virtualises its products also through digitalisation. The majority of the offered items are in material form, but some products become partially digitalised: in the case of books, Amazon.com provides scans of the most important pages (i.e. covers, list of contents, indexes, etc.) and in the case of music, it allows to listen to the beginning of musical compositions. Even though the functionality of such digitalised product is considerably limited, it can still be of much assistance in the product evaluation process and making the final choice. It is worth noticing that products characterised by limited functionality or reduced benefits for the customer exist also in the scope of traditional economy, *vide* free samples of products. Moreover, Amazon.com offers e-books—digitalised versions of traditional books, to which the users gain access after purchasing a reader offered by the company.

Interesting new possibilities of enrichment of traditional products in information appeared with the development of augmented reality. The main goal of this technology is to add information and meaning to real objects or places (Educause, 2005). Augmented reality enables to enhance the images coming from a video camera or other device (e.g. MRI) with information displayed on a computer screen, mobile phone, special glasses or on a car's window-pane. The technology is believed to be first introduced by the Boeing company. The mechanics working for the company wore head-mounted displays on which the images of the plane parts that they had before their eyes were accompanied by information on how to fix them, without the need for consulting a manual (Greenemeier, 2009; Memi, 2006). Augmented reality can be employed in various contexts, for example serve as a base for positioning tools (information on the itinerary are superimposed on an actual image), hydrology and geology search tools, architecture visualisation systems (possibility to see a full visualisation of an edifice on a mobile telephone's screen, while visiting its ruins) and for entertainment applications (Pardel, 2009).

The notion similar to augmented reality, although associated with a more extensive meaning, is the so-called *Internet of things* (Internet of everything). The phenomenon relies on connecting objects of everyday use, which usually have nothing to do with computers, to the Internet (Fleisch, 2010). Objects may communicate with each other e.g. by means of radio waves (e.g. by applying the NFC standard and/or RFID protocols). Fleisch presents various domains in which Internet of everything may be applied, including: object localisation; acquiring sensor data such as temperature, brightness, humidity, vibration, and speed of a given object; product safety in the scope of originality and localisation; data transmission (e.g. measuring a tire pressure); addition of contents and meanings (just as in the case of augmented reality), which in consequence may help to create a fully virtual, interactive environment. According to Chui et al. Internet of things gives a possibility to optimise automated systems, processes, resource consumption, and to elaborate complex autonomous systems (e.g. automatic braking systems or automotive autopilots (Chui, Löffler, & Roberts, 2010). A commonly quoted example of a product that makes use of Internet of things are the running shoes with a built-in sensor that tracks the run and sends information to a mobile phone. The development of the phenomenon and its social dimension are equally very interesting. According to the Economist, around the year 2000, Internet of things started to be perceived as a technology that would revolutionise everyday life by enabling immediate product localisation, which in consequence could lower theft rates, increase security, increase the efficiency of resource management, lower costs, etc. (Babbage, 2010). Just as in the case of other technological solutions (e.g. mass customisation), the idea of Internet of things did not gain wide popularity, because of considerable technical problems (e.g. limited number of free IP addresses), problem of privacy, and controversies around security of sensitive data, especially important documents and credit card numbers.

2.4 Customer Value Co-creation

One of the most frequent phenomena, marking Internet-based relations between companies and customers, is customer value co-creation, which seems crucial from the perspective of companies' strategy. The problem was broadly elaborated by Prahalad and Ramaswamy in the monograph entitled "The Future of Competition". The authors prove that the customer value co-creation process is the most important factor of competition in the modern economy (Prahalad & Ramaswamy, 2004).

The concept of value co-creation is very broad. It includes both the situation in which customers co-create value which they will receive themselves and the situation in which they create benefits for other users. In the first case, customers' actions stem from a broadly perceived value proposition individualisation. In other words, customers get involved in actions aiming at obtaining benefits adjusted to their needs and expectations (mass customisation). In this case, value exchange can be described as one-to-one. The customer directly participates in the value exchange with the company. As a result, the customer receives an individualised

value proposition. The participation of other customers is not necessary. Inclusion of the Internet and IT in the scope of the process, made it possible to offer customised benefits on a large scale, and helped to coin an oxymoronic notion of “mass customisation”.

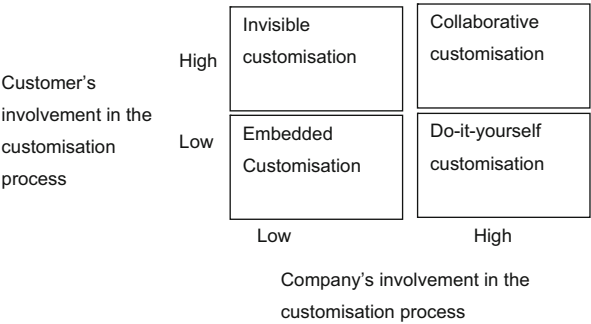
Other user-oriented value co-creation, on the other hand, may take various forms, such as publication of product reviews (e.g. on the websites of online stores), interactions with other users (e.g. social networks), content creation and publication (e.g. Wikipedia), co-operation in software development (e.g. the open-source movement). In this case, it is normally a large customer group which co-creates value for another numerous group and the customers-receivers obtain a uniform (not customized) value proposition. Thus the exchange can be described as all-to-all. This strategy is applied e.g. by Amazon.com, which enables its customers to read product reviews published by other users, and by online auction services, where the sellers present their offers and the buyers choose the ones which they find the most interesting.

2.4.1 Mass Customisation

According to Piller, mass customisation refers to manufacturing products and services, which meet the demands of each individual customer, but which still can be produced and delivered with mass production efficiency (Piller, n.d.). Kleemann and Voss (2008) notice that mass customization refers to “the isolated activity of individual customers as directed toward one unit of the product, not to the collective activity of many individuals as directed toward general product type”. According to one of the first definitions of the phenomenon, formulated in 1993 by Pine, mass customisation consists of development, production, marketing and delivery of customised products and services at an affordable price and in a variety and customisation wide enough to satisfy almost every customer (de Holan, Piller, & Salvador, 2009). It is worth noticing that mass customization does not necessarily mean creation or modification of a product according to the customer’s needs. Offering a wide range of products and communicating with customers in a personalised manner, which aims at providing customers with goods corresponding to their needs, are also included in the idea of mass customization. For example, such is the case of Amazon.com.

In the article *The Four Faces of Customisation*, published in *Harvard Business Review* in 1997, Gilmore and Pine identified several types of customisation, based on the level of customisation of the product itself (i.e. its essential features) and on the number of modifications in the product’s representation (i.e. its superficial design elements) (Gilmore & Pine, 1997). It should be noted that the classification elaborated by the authors seems to be still actual and applicable. However, it can be modified with other dimensions, such as the level of involvement in the customisation process demonstrated by both the customer and the company (Fig. 2.4).

Fig. 2.4 The categories of customisation. Source: Own work (cf. Gilmore & Pine, 1997)



Collaborative customisation appears when both the customer and the company become highly involved in the customisation process. This is the case of, for example, the Dell company. The company's customers have to make a certain effort in order to identify and then communicate their needs. Basing on the customer's specification, the company has to produce a fully-operating computer. In the case of *invisible customisation*, the customer may be unaware of being provided with solutions adjusted to their personal profile. This strategy is employed by Amazon.com whose recommender system analyses products viewed by the customer and then recommends them other related products. In a similar manner, YouTube displays on its main page videos that are similar to the films watched previously by the user. Customers do not put any effort in the process of customisation, since it takes place, based solely on their buying behaviour. *Do-it-yourself customisation* takes place when the company offers a non-diversified product, i.e. all the customers receive the same value proposition, which they adjust it to their individual needs. This is the case of some operating systems, in which it is possible to adjust colours, sounds, etc. One of the most interesting types of the phenomenon is the *embedded customisation*. Neither the customer, nor the company take part in the process, but the product itself provides the customer with differentiated benefits. Such is the case with Adidas 1, a running shoe which adjusts the stiffness of its sole to running or walking conditions (de Holan et al., 2009).

Mass customisation combines the characteristics of both industrial and service undertakings. The main advantage of industrial projects is low price resulting from the large production scale, while the main advantage of service projects is the individualisation of the value proposition offered to the customer. For the needs of the following part it will be assumed that industrial projects are characterised by a higher proportion of fixed costs, and service undertakings by a higher proportion of variable costs.⁴ Variable costs typical for service ventures and resulting from value individualisation are usually passed on to the customers. Such costs include, among others, the amount of work put in identification of the customer's needs, translating needs into desired product features, and learning of a new virtual environment in

⁴ In some kinds of services, such as hotels, airlines, or cruises, fixed cost prevail.

which the process will take place. Moreover, customer-borne transactional costs equally include all kinds of risk associated with possible mistakes committed during the product designing process. The company may partially reduce variable costs incurred by customers, e.g. by active customer assistance or by providing customers with risk decreasing instruments (such as the possibility to return the product). The customisation-related costs incurred by the customer may be a barrier in entering into relations with the company. The process of non-individualised mass product creation does not require such efforts from the customer. However, if the company and the customer succeed in starting a relation based on value customisation and the benefits delivered by the company meet the customer's expectations, the amount of labour invested by the customer and their satisfaction with the product are likely to start the customer's loyalty, since the amount of labour invested by the customer becomes an element of switching costs, and by that increases the customer's loyalty.

Broadly speaking, a project based on mass customisation is associated with a broad market, is characterised by a high proportion of fixed costs and it imposes the variable costs of value co-creation on customers. The fact of operating on a broad market enables the company to manufacture products on a large scale, which translates into low product price, similar to the price of mass products. Therefore, the company employs the diversification strategy elaborated by Porter. On the other hand, owing to low prices of its products, the company may win the position of cost leader. Porter believes that the two generic strategies should not be combined, since it can result in getting "stuck in the middle" (Porter, 2004). However, the examples of such companies as Amazon.com or Dell as well as some theoretical studies prove that this hybrid strategy can be successful. Divergence of opinions on that matter may be caused by a massive technological development, which has taken place from the beginning of the 1980s, when *Competitive Advantage* by Porter was published for the first time. The popularisation of information and telecommunication technology enabled to combine the advantages of the large project scale, normally associated with low product prices, and with production elasticity, which gives possibility to individualise the value proposition offered to the customer. Hence, the employment of information and telecommunication technology has increased the quality of new products, compared to the traditional ones. In the latest publications, Porter admits that the two strategies (i.e. diversification and cost leadership) may be used jointly, e.g. when a company, as a sole market competitor, has access to an important technology (Porter, 2004).

An interesting observation on mass customisation was made by Salvador, de Holan, and Piller in the article entitled *Cracking the Code of Mass Customisation*. The findings presented by the authors are a result of an almost 10-year research conducted among 238 manufacturing plants in 8 countries. One of the most important conclusions of the study was that all the surveyed companies tuned customers' diversified needs into an opportunity to create value, rather than a problem to be minimised by means of mass production. In order to benefit from all the opportunities offered by mass customisation, it should be perceived not as an

independent business strategy, but as a ‘set of organisational capabilities that can help a company better align itself with its customers’ needs’.⁵

Salvador et al. discerned three fundamental areas of mass customisation: solution space development, robust process design, and choice navigation. Each of the areas was assigned with a so-called fundamental capability. The fundamental capability for solution space development is to identify the product attributes along which customer needs diverge. For robust process design, the fundamental capability relies on reusing or recombining existing organisational and value-chain resources to fulfil a stream of differentiated customer needs. In the area of choice navigation, the fundamental capability consists in supporting customers in identifying their own solutions while minimising complexity and the burden of choice.

2.4.2 Value Co-creation Oriented at Other Customers

Value co-creation founded on the idea of all-to-all exchange is a concept that constantly gains in popularity and which is associated with the creation of various online services and notions that revolve around the concept itself. Probably the most widely spread idea is the one of Web 2.0. It may be described as a type of Internet ventures, which rely mainly on content created by the users and their interactions.

The notion of Web 2.0 is connected with the idea of *crowdsourcing*. The creator of the term, Howe (2006), states that crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined and generally large network of people in the form of an open call. The notion of *peer production* (or common based peer production) is quite similar and also relates to the process of value co-creation by a network of people (Benkler, 2006). Another concept associated with this particular type of value co-creation is *wikinomics*, defined by its authors, Tapscott and Williams (2006), as operations based on four ideas: openness, peering, sharing and acting globally. Another notion of the same category is *open innovation*, i.e. the conviction that the company’s innovation should spring from sources external to the company, such as cooperation with other companies, as well as with single customers or customer communities (Chesbrough, 2003).

One should not forget about the notion of *collective intelligence*, defined as the ability of virtual communities to leverage the knowledge and expertise of their members, through large-scale collaboration and deliberation (Jenkins, 2006). It seems to be close to the idea of wisdom of the crowds coined by Surowiecki (2004: 72). According to the author in order to become ‘wise’ a ‘crowd’ has to satisfy four conditions:

⁵ The classification of capabilities and their exemplification was taken from de Holan et al. (2009).

- Members of the group should be diversified in knowledge and abilities,
- Actions of the group members should be independent (people's opinions are not determined by the opinions of those around them),
- Decentralisation by means of which the members of the group are able to specialise,
- Aggregation, which enables to turn private judgements into collective decisions.

Rheingold (2002) introduced the notion of smart mobs, which—by means of information technology—cluster temporarily around information and goals of mutual interest, on the basis of the so-called adhocracy.

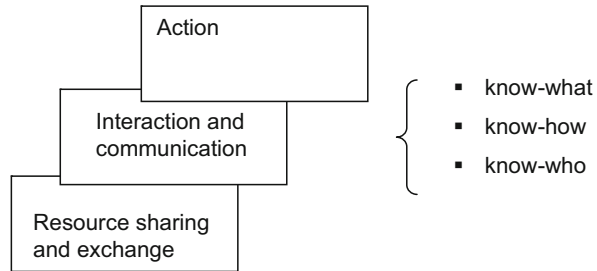
Apart from the undoubted benefits of the collective cooperation presented by many authors, some researchers believe that it has also some serious flaws. Such is the case of Mackay (2003), who in the book *Extraordinary Popular Delusions and the Madness of Crowds* presented various situation in which the collective intelligence has failed—e.g. the creation of speculative bubbles. It is of particular interest that the problem described by Mackay is still valid, even though the book was first published in 1841. In turn, Keen, the author of *The Cult of the Amateur: How Today's Internet is Killing Our Culture* (2007) points out that the sea of amateur content makes it more difficult to access the most vital information.

Lanier is even more severe in his judgement. In an essay entitled *Digital Maoism* (2006) he states that collective decision making process on the Internet makes banal contents prevail over the more ambitious ones, or at least over those which require more attention and involvement. Lanier provides the example of Digg, an online service which classifies various information based on its users' vote. On the website, the information on a student ice-cream eating contents was voted more important than the information on a serious earthquake in Java.

From the perspective of the project's success, it is necessary to acquire or build particular assets and capabilities. It presents the greatest challenge when it comes to co-creation of all-to-all type. In the first case (one-to-one value exchange), the success depends largely on the cooperation between the company and the customer, while in the case of all-to-all ventures, it is frequently necessary to involve a larger group of customers in order to make the final value proposition attractive for other users.

The concept of value-co creation by customers is broad and relates to various types of customer's participation. From the customer's point of view, the values delivered by users may be referred to as investments, and the values received from the company may be perceived as benefits. The customer's investments include resources, interaction, communication and actions. Creation of value to customer may take place at different levels of the customer's involvement, based on the investments made by them and by other customers. Figure 2.5 presents various types of investments made by customers in the Internet-based value co-creation process.

Fig. 2.5 Various kinds of investment put by the customer in the Internet-based value co-creation process. Source: own work



2.4.2.1 Value Co-creation Through Resource Sharing and Exchange

Value co-creation may be carried out through sharing or exchanging resources being at the customer's possession. Such is the case of projects based on the idea of distributed computing, which consists of using the combined processing power of computers belonging to the people participating in the project to solve a particular problem. Probably the best known undertaking of such a kind is the project SETI@home. The creators of the project describe it as a scientific experiment that harnesses the power of Internet-connected computers to analyse radio telescope data in the search for Extraterrestrial Intelligence. The project is executed by the Space Sciences Laboratory at the University of California, Berkeley.⁶ A similar experiment was launched by Stanford University: the project Folding@home investigates the protein folding process. It is worth noticing that Folding@home uses processing power provided not only by personal computers, but also by Sony Playstation 3 gaming consoles.⁷ The range of projects drawing from the idea of distributed computing is quite remarkable. The IBM company created a platform called World Community Grid, designed to host various research projects, such as AIDS and children's cancer treatment or clean energy.⁸

Popular online ventures that combine the ideas of resource sharing and exchange are peer-to-peer networks, which give their users a possibility to download every file available in the network. They are mainly used for free acquisition of music and videos.

In the cases described above, participants of the programs shared files. However, many online ventures are based on the idea of sharing products. They make possible adding value to products by exchange, as well as enable users to communicate and enter into interactions. A good example of such a project is a Polish website podaj.net, where the users may exchange used books, films and computer games for free. Every user of podaj.net makes a list of products to offer. When another user becomes interested in and then receives a particular item from the list "the seller" obtains a point, for which they can "purchase" items from other users. According to the data obtained from the website, from almost 8000 registered users, over 120 000

⁶ Official program site: Seti@home, <http://setiathome.ssl.berkeley.edu>.

⁷ Official program site: Folding@home, <http://folding.stanford.edu>.

⁸ Official platform site: World Community Grid, <http://www.worldcommunitygrid.org>.

book exchange transactions were conducted (Podaj.net, n.d.). On-line auctions also employ such model of operating, even though, in this case the value is created by a transactions, and not by a product exchange.

Another facet of the phenomenon is the so-called crowdfunding, i.e. acquisition of financial resources via Internet from a large audience (the “crowd”) where each individual provides a usually very small amount (Belleflamme, Lambert, & Schwienbacher, 2011). According to Belleflamme et al., crowdfunding may be geared both towards consumption and investment. The authors provide the example of a film, which was co-funded by fans and then distributed through standard (paid) channels. In return, the crowdfunders obtained exclusive access to some film-related content. The second type of crowdfunding is equally interesting, but appears less frequently: the crowdfunders do not draw direct benefits from consumption, but by funding a given company or initiative have influence on managerial decisions and sometimes obtain shares in profits (Belleflamme et al., 2011).

2.4.2.2 Value Co-creation Through Interaction and Communication

Another type of ventures oriented towards value co-creation are the online services that rely on interaction and communication. Such ventures will be presented according to the dominant type of knowledge they employ. In this paper, the division will be as follows:

- Know-what knowledge (views, preferences);
- Know-how knowledge (ability to find solutions, logic);
- Know-who knowledge (knowledge of particular people who possess knowledge or chosen through different criteria).

Know-what knowledge is similar to information. This category frequently includes knowledge enriched with a certain element of subjectivity, typical e.g. for views and preferences. The subjectivity stems from evaluation of information, based on third party opinions, own experience, etc. This type of knowledge, just as the other two, is elaborated by people. It may be reduced to the form of data, but compared to information or data it is much more difficult to classify or browse in search for elements of particular characteristics. Building of know-what knowledge by users is the domain of Wikipedia. The main assumption of this undertaking is that its creators will publish knowledge that is objective and based on facts. Know-what knowledge of a subjective character, typical for views and preferences, is employed by such ventures as Digg.com, which publish links to the websites interesting from the perspective of their users.

Subjective know-what knowledge is also the key element of *social shopping* services, which combine features of social networking services and intermediaries. There are many kinds of such services, nevertheless their most important functions are: aggregation of reviews and evaluations of products made by users, search for products based on information provided by users, and facilitation of shopping by displaying lists of shops offering given products. Even though the notion of social shopping has gained popularity only in recent years, the idea has been employed for

many years. Such is the case e.g. of Amazon.com, which already since 1995 has been employing subjective knowledge of its customers, manifesting as product reviews and comments (Ante, 2009)

There also exist more elaborate models of employing subjective know-what knowledge, such as the so-called *prediction markets*, on which the probability of future events become the object of transaction. In other words, their participants predict the outcome that a given event will have in the future. Market predictions fall into various categories, such as economy (e.g. stock indexes), politics (e.g. winning the elections by a given political party), or science (e.g. finding cure for cancer within the next 5 years). For correct answers, users are rewarded in a way characteristic for a given service (e.g. with a number of points), and in the case of incorrect predictions bear some consequences (e.g. lose points). The final result of operations on a prediction market is to indicate the result of a future event, or to determine its probability. The effectiveness of such markets, i.e. the accuracy of prediction, has become the subject of numerous studies, which are often based on complex econometric models (Gjerstad, 2004; Wolfers & Zitzewitz, 2006).

The employment of the prediction movement allowed, e.g. to elaborate the most accurate prognosis of the results of the CDU party in 2005 elections to Bundestag. The party won 35.2 % of votes, the prognosis of the prediction market was 38.5 %, while according to the research on the electoral preferences, CDU should have obtained 40 % of votes. The discrepancies resulted from asking different questions: the prediction market question was how other people would vote, while the survey question was how a given respondent would vote (Hackhausen, 2006). According to research conducted by Berg et al., prediction markets are more likely to yield more accurate results than surveys of electoral preferences. The study concerned the split of votes among the Democratic Party and the Republican Party in the years 1988–2004. The prognoses of the prediction markets were more accurate in almost three in four cases. Moreover, prediction markets significantly outperformed the polls in every election when forecasting more than 100 days in advance (Berg, Nelson, & Rietz, 2008).

An interesting example of an undertaking based on the idea of prognostic markets is Hollywood Stock Exchange—an online service which gives the possibility to buy, for play money, “shares” in movies, actors, or directors, treated as business ventures. The value of a venture depends on how much money ticket sales will generate. Shares are the object of transactions carried out by the users and are subject to supply and demand. Hence, the price of shares reflects predicted incomes that a movie will generate. According to *Businessweek*, Hollywood Stock Exchange is one of the methods that film companies employ to prepare advertising campaigns. Moreover, aggregated predictions of the service’s users help to determine the winners of the Academy Awards, with an accuracy rate of over 90 % (King, 2006).

Numerous online ventures employ various kinds of knowledge provided by their users. Such is the case of services enabling content publication and opinion exchange (e.g. blogs, online forums), and other types of platforms, which communicate with their users by providing answers to questions they ask.

An interesting example of the employment of know-how knowledge are the so-called *ideagoras*. By means of this notion, Tapscott and Williams, the authors of *Wikinomics*, describe markets on which ideas, innovations and people of exceptional qualifications meet (King, 2006). One of the most frequently quoted examples of such a venture is InnoCentive, a platform designed to connect companies willing to pay for solutions to their problems and specialists willing to find such solutions. Such a solution enables companies to make use of a global network of specialists, without the necessity to hire anyone (King, 2006). The statistics associated with this undertaking are rather interesting: the number of registered solvers amounts to 250,000. Until July 2009, the number of challenges posted on the website was 1,044, 50 % of which have been solved. Almost USD 5.3 million from the total declared pool of USD 24.2 million were awarded to researchers. Overall, about 294 thousand submissions were posted, which means that the number of proposed solutions to a given problem amounted to 282.⁹ These data prove that the venture has a particularly high scientific potential, which may be successfully used by other companies. Large discrepancies between offered and awarded amounts, taking into consideration a 50 % efficiency of solutions, may mean that the most prized, but also the most difficult problems have not been solved. According to *Der Spiegel*, InnoCentive successfully employs the idea of open innovation on a global scale—an important part of solutions was posted by Russians and Indians (Schmundt, 2005). Other ventures, based on the idea of co-creating open innovations by researcher communities are, for example, Nine Sigma (www.ninesigma.com), Innovation Exchange (www.innovationexchange.com), or One Billion Minds (www.onebillionminds.com) which employs the potential of students. Such services rely on both know-how knowledge and actions initiated by their users.

Know-who knowledge may be defined as the knowledge of particular people who have at their disposal particular information, abilities or capacities. Such a kind of knowledge may be gained by becoming a member of a particular community. It is frequently employed by social networking services, which enable its users to create a community around a particular issue. Their users enrich such services with their acquaintances (i.e. their social graph), but they may also meet new people. The services equally employ mechanisms based on different kinds of knowledge, e.g. discussion forums, nevertheless it is the aggregated capital of know-who knowledge in the form of a social network which translates into the number of the service's users, that helps one service to gain advantage over the other ones, by means of network effects

⁹ State as of 2009.07.14, according to *InnoCentive at a Glance*, <http://www.innocentive.com/about-innocentive/facts-stats>, viewed 01.12.2010. More current data have the same structure, nevertheless they lack in certain financial information.

2.4.2.3 Value Co-creation Through Customers' Actions

The last of the discerned ways in which customers may co-create value are undertakings based on the actions of the customers (users) themselves. Probably one of the best known initiatives of such kind is the open source movement. The source code of open source software is available for everybody, hence every user may modify it and adjust to their own needs. The most common examples of the movement are Linux operating system, Firefox browser, and OpenOffice spreadsheet.

The open source principle may be also used to develop Facebook applications. Applications are additions to the basic functionalities of the service, have access to its data and may be employed by other users. The most commonly designed Facebook applications are quizzes and games, but they do not limit solely to the entertainment sphere.¹⁰

The idea of open source has equally been adopted by the automotive industry. The name “OScar” combines two words: ‘OS’ (open source) and ‘car’ and refers to a project, the main goal of which is to co-create full technical documentation of a car. Based on such a documentations, the users may assemble a car without any necessity to pay licence fees—according to its creators, OScar must be simple, multifunctional, modular, and easy to assemble (The Oscar Project, 2014).

Value co-creation through action is not limited to software. The website threadless.com gives its customers a possibility to submit their own T-shirt projects. The projects are then assessed by the community gathered around the website. If a project gains positive votes, it may be put in production and the author may be provided with financial benefits (www.threadless.com).

2.4.2.4 Value Co-creation Oriented on Other Users: Success or Failure?

In the preceding part, categories and examples of undertakings based on value co-creation oriented on other users were presented. As it is usually practiced, only successful ventures of such type were used as examples. Such a presentation does not fully reflect the actual state of the matter, since it does not include undertakings that failed. Business ventures, especially those based on value co-creation, are characterised by a high level of risk, therefore it is difficult to predict which of them will succeed. On the other hand, quite frequently, successful undertakings based on value co-creation are able to change the rules of competition in many sectors.

It is extremely difficult to determine if a given community co-created undertaking will gain popularity. The statement that open source software may compete against software developed by corporations appeared, in the early 90s, as very risky, just as did the belief that an encyclopaedia which is comprised solely of text content created by amateurs may become more popular than the Encarta encyclopaedia developed by Microsoft.

¹⁰ A website dedicated to app development for Facebook <http://developers.facebook.com/>, viewed 01.12.2010.

One may ask why, if communities have been able to create or at least develop so many successful undertakings in the above mentioned areas, such solutions are not employed in other domains. Why, for example, there is no popular search engine based on the open source movement? In fact, everything depends on the product's specificity. The process of search engine development requires elaborated infrastructure, synchronisation of actions, and therefore requires action hierarchy. Products created by means of open source movement are characterised by particularly dispersed actions and a great number of independently functioning software distributions (versions). Such is also the case of Wikipedia—it does not require advanced synchronisation, since edition of one entry usually does not influence any other entries. For a search engine, the key element is an algorithm which will rank websites and determine the order of their appearance in search results. Functions of such an algorithm have a large influence on the Internet user behaviour, especially on their purchase decisions. The persons responsible for creation of the algorithm would probably act under a great pressure of various groups, which would hamper the creation of an optimal solution even more.

If the difficulty of community co-created products lies solely with the problems associated with technological complexity, it may be asked why products displaying much lower technological complexity, such as information aggregators like Reddit.com or Digg.com, have not become an alternative for traditional mass media. Theoretically, the image of reality created based on information that other people classified as important should be of great use to almost everyone. In practice, such aggregators give a twisted picture of reality. Perhaps, the main flaw of such services is associated with their open character which enables users to vote for information that are strange, funny or shocking. On the other hand, online services co-created by communities, even if they cannot replace traditional media as providers of current information, have gained an important competitive position in the so-called opinion sector. It may be proved e.g. by the popularity of Huffington Post, a service where the content are created both by regular users and important political, business or traditional media figures.

It seems interesting to notice that the undertakings which may be perceived as designed to embrace all the possibilities offered by the Internet, terminate their activity. In this context, it seems justified to provide the example of the Zubka company, a recruitment undertaking based on the know-who knowledge of its users. If a user put forward a winning candidate they were awarded, depending on the level of pay offered by the employer. According to Guardian, it amounted to 80 % of the fee paid by potential employers to the company (Johnson, 2007). A similar manner of operation was adopted by GoldenFinger, a program elaborated by the Goldenline, a Polish counterpart of LinkedIn. The service helps to develop professional relations, hence it is frequently used by recruitment companies to publish their employment offers and directly contact potential employees. The *modus operandi* of GoldenFinger to a large extent reminded the one of Zubka. If a user of Goldenline proposed the candidature of a given person to a position advertised in the service and the given candidate was employed, the person who

proposed them was awarded with money.¹¹ Eventually, both services have ceased to provide the aforementioned services

Failures of undertakings based on social media affect also the biggest companies, such as Google. The company launched a venture called Google Knol which was designed as an alternative for Wikipedia. While the main goal of Wikipedia is to provide objective, factual know-what knowledge, Google Knol aggregated articles presenting various points of view on a given matter. The service was launched in 2007 and attracted a lot of critical comments. Google was accused of trying to take over the functions that up to date had been the domain of Google-independent Wikipedia (Riley, 2007; Lane, 2007). During the first five months of activity, Google Knol aggregated over 100,000 articles. At the end of the year 2011, the company announced that as part of the 'spring cleaning' it would close some projects, including Google Knol (Hölzle 2011).

The success of such ventures relies mainly on their users. By exhibiting opportunistic or undesired behaviours they may limit the level of benefits for potential customers, and therefore increase the risk of a venture.

2.4.2.5 Customer Competition and Co-operation in Value Co-creation

The ventures that are based on customer value co-creation may be categorised according to various customer interactions, which can differ in the level of competition and cooperation. By adopting such a criterion the following models may be discerned:

- Model of competitive market
- Model of non-competitive market
- Model of competitive community
- Model of non-competitive community

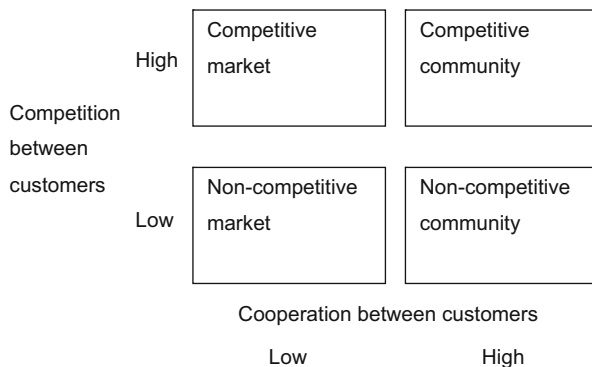
The categorisation of undertakings based on customer value co-creation based on the criterion of customer co-operation/competition is presented in Fig. 2.6.

For the purposes of this study, "a market" will be defined as a place where two groups of subsidiaries meet in order to enter into a transaction or perform a transaction-like action. A member of one group may be at the same time a member of other group, while entering into other transaction, but from the point of view of a particular transaction, they are ascribed to one of the parties.

According to the *model of competitive market*, the platform becomes a place of interaction of two groups of customers with different needs, which become satisfied in the course of exchange. The model assumes that the increase in the number of members of one group has a negative influence on their benefits, since it increases competition. On the other hand, the increase in the number of members of the other, complementary, group enhances the benefits for the group, since the number of

¹¹ The sub-site of Goldenline.pl dedicated to the GoldenFinger program: <http://www.goldenline.pl/goldenfinger/info>, viewed 2012.03.15.

Fig. 2.6 Classification value co-creation ventures, based on customer competition and cooperation



persons with which one can enter into a transaction becomes greater. Such is the case of online auctions: from the seller's perspective the most beneficial situation is when the number of buyers increases and the number of sellers becomes lower. This phenomenon may be explained by the concept of multi-sided platforms (Evans, 2003; Silverthorne, 2006). Moreover, members of two groups tend to cooperate, e.g., by giving notes and comments to sellers with which the users have entered into transaction. This kind of activity is beneficiary from the point of view of other members of the community, as it facilitates the choice of subjects exhibiting a desired combination of trustworthiness and price level. Such a model of value co-creation may be also applied for social lending websites, ideagoras such as Innocentive and crowdsourcing websites, e.g. iStockphoto which enables buying and selling photographs for commercial use.

In the *model of non-competitive market*, the platform becomes a place where the needs of the both sides become fulfilled. For some reasons, however, the members of the same group do not compete against each other. The lack of competition may result from the digital character of goods being the subject of the exchange. The fact of using a digital product by one user does not diminish the benefits for other persons using the same good. Therefore, non-competitive consumption products in the model of non-competitive market may be perceived as public goods, which frequently appear in publications on economy (Stiglitz, 2000). A plausible example may be provided by peer-to-peer platforms which give a possibility to share various files. Just like in the case of competitive markets, a transaction is conducted by two sides: those who upload and those who download files. From the point of view of benefits provided by a given file, competition between the users does not exist. Nevertheless, the element of competition appears when it comes to data transfer speed, since it may be negatively influenced by the increase in the number of users.

A *competitive community* is a community of people brought together around a particular idea. It comprises of only one group of customers who at the same time compete and cooperate with each other. Such a situation occurs in communities the members of which share knowledge and information, but which is not deprived of the element of competition, such as a rating system. An example may be provided by a Polish website onephoto.net. The members of the community may comment on

the photographs uploaded by other users (the element of cooperation) and rate them in order to create a photo ranking (the element of competition).

An example of the *non-competitive* and cooperation-oriented *community* may be given by Wikipedia, the open source movement and its automotive counterpart—the Oscar Project. The members of the community work together on a common project and the element of competition scarcely appears. It may however arise when the users compete against each other for reputation or experience gained while developing a common project. In the case of Wikipedia, the improper element of competition becomes evident when members of the community delete entries elaborated by other users and replace them with their own articles. Further examples of non-competitive community are social networking sites, such as Facebook or LinkedIn.

2.5 Online Customer Experience

The increasing role of customer experience in marketing activities is due to the fact that it is becoming more and more difficult to compete based solely on the development of products or services. Nowadays, product attributes or benefits associated with the delivered services do not assure competitive advantage, for they may be easily copied and improved by other companies. Moreover, innovations introduced by the company may pass unseen, or become wrongly interpreted by customers. This is why customer proximity strategies become increasingly interesting for the companies. These strategies may be exemplified by the so-called experiential marketing, i.e. a marketing trend, in which customer experience is perceived as the main field of competition for companies.

Despite many opinions that the inclusion of the customer experience in marketing activities is an innovation of recent years, publications on the role of customer experiences in consumption started to appear in early 80s (Holbrook & Hirschman, 1982). Furthermore, the notion of consumption experience also appears in the works of Keynes, Marshall, and Smith (Frow & Payne, 2007). In 1955 Abbot stated that *what people really desire are not products, but satisfying experiences. Experiences are attained through activities* (Palmer, 2010). What is more, the role of customer experience in marketing was recently stressed by Pine and Gilmore, the authors of the book entitled *Experience Economy: Work Is Theatre & Every Business a Stage*, in which they state that an experience becomes successful when it is perceived by the customer as unique, worth remembering and possible to repeat over and over again. According to the authors, the company's employees become actors and every business—a stage. They provide one of the best known examples of experience marketing: Disney theme parks, where the employees are referred to as “Imagineers” (i.e. imagination engineers), a term which perfectly describes the scope of their activities. Comparing the relationship between the customers and the company to a play and seeing company's employees as actors has also a theoretical foundation. The concept was introduced in 1956 by an American sociologist, Goffman, in a monograph entitled *The Presentation of Self*

in *Everyday Life* (Goffman, 1959). In the context of customer value co-creation, Prahalad and Ramaswamy not only stress the importance of customer experience in business competition, but also postulate the creation of experience networks, i.e. infrastructures aimed at successful value co-creation through experience individualisation (Prahalad & Ramaswamy, 2004: 97).

The concept of customer experience management appears in various business handbooks. It is frequently presented as a revolutionary approach, a true breakthrough in the relationships between the company and the customer (Schmitt, 2003). Nevertheless, some authors argue that the books of this type are published to support the credibility of the author and to sell their consultancy services rather than to promote dissemination of any deeper understanding of experiential approaches (Tynan & McKechnie, 2009). Holbrook, the author of several publications on the role of experience in consumption wrote a four-part review of such handbooks, under a revealing title *The Consumption Experience—Something New, Something Old, Something Borrowed, Something Sold* (Holbrook, 2006), in which he accused the authors of non-verification of theories and far-fetched generalisations.

Regardless of the concept of customer experience management, emotions have long been used in advertising. Emotion-laden advertisements not only help to remember the promotional message, but also tend to limit the effectiveness of thought processes, and therefore decrease the ability to formulate counterarguments. According to Kwarciak, a proper emotional setting increases product attractiveness and may contribute to the creation of a bond between the customer and the product (Kwarciak, 1999: 94). Sometimes, experiential marketing is associated with the so-called sensory marketing, i.e. marketing that engages not only the customer's sight and hearing, but also other senses.

Frow and Payne (2007) believe that it is necessary to consider two perspectives of customer behaviour. The first one suggests that the customer is primarily engaged in goal-directed activities, such as searching for information, evaluating available options and making purchase decisions. The other approach emphasises emotions and contextual, symbolic and nonutilitarian aspects of consumption. In the case of the relationships with institutional customers, the focus should be on the rational approach, while an emotional perspective may be important e.g. in the leisure industry. When it comes to experiential goods and leisure products, acknowledging customer experience becomes particularly important.

In the context of experience, perceived as a value to customer, the notion of 'flow' is frequently applied (Huang, 2006). It was originally coined by Csikszentmihalyi (2000) in the paper entitled *Beyond Boredom and Anxiety*. The author defines flow as the state in which people are so involved in an activity that nothing else seems to matter.

2.5.1 Internet as a Tool for Creating Customer Experience

The Internet enables to reach customers with *multimedia messages*. Usually, such a message combines image, animation, video, and sound. Although a multimedia message appeals to only two senses, it may be perceived as an efficient tool of attracting and retaining customer's attention.

Moreover, the Internet provides the possibility of *customer interaction*, i.e. it helps to replace a one-sided company's monologue directed at the totality or a part of the market with a multi-sided egalitarian dialogue between the company and its customers, as well as between the customers themselves. Customer interaction may additionally result in customer value co-creation, that is active participation in the process of creating value propositions. The level of customer interaction may be determined by the degree of customer's integration with the company and other customers.

The perception of the Internet as a place where customer experience begins, helps to conduct *mass-scale* activities. Customer experience is formed based on a technical infrastructure, which usually generates high fixed costs. Consequently, in the case of mass-scale activities, the cost of experience delivery not only decreases, but even gets to zero. Nevertheless, quite frequently online marketing requires additional physical infrastructure, which may produce additional costs.

Internet users are not willing to read long written messages, which was proved by a study conducted by IBM in early 80s among computer users. It was then, that the *paradox of the active user* was formulated (Fu & Gray, 2004; Nielsen, 1998): new product users do not read manuals but try to configure the product by themselves, which costs them more time than if they used the manual. Hence, as it was point out by Nielsen, products should not be built for an idealised rational user, but designed for the way the customer actually behave in a given situation. On the Internet, a thoroughly chosen composition of interactive and multimedia elements may become a more efficient way of communication than long written descriptions.

2.5.2 Functions of Experience in Value Proposition

Experiences delivered to the customers have three major functions: building satisfaction, product/service promotion, and the function of basic product, for which the customer has to pay (c.f. Table 2.2).

Shaping of customer experience may have a *promotional function*. Properly chosen experience delivered to a potential customer may induce them to purchase a given product. Moreover, delivering experience to a smaller consumer group may be more a effective kind of promotion than reaching a larger group of potential consumers with a conventional promotional message. This kind of promotion is usually employed in the case of the so-called experience goods, i.e. the goods the

Table 2.2 The role of experience in value proposition

Functions of customer-delivered experience	Description	Example
Product/service promotion	Using experiences delivered to the customers as an element of promotion of a given product or service	Traditional (non-digitalised) experience goods, movies, clothes, fast moving consumer goods
Building satisfaction	Increasing positive customer experience associated with contacts with the company	High-involvement products, continuous services
Core product	Experience becomes a value for which the customer is willing to pay	Digitalised experience goods, sports betting, gambling, erotic websites

Source: own work

quality of which may be ascertained immediately upon consumption.¹² Such products are impossible to describe using parameters that would be sufficient to make a potential customer buy a product, as it happens in the case of the so-called search goods. The group of experience products include leisure products and services, such as travel and catering services, but also sport-related products. As the research shows, the presence of multimedia and additional product information, such as reviews from other customers, increase the likelihood of purchase for search goods and experience goods, especially the latter (Huang, Lurie, & Mitra, 2009). Such a type of promotion is equally employed in the case of fast moving consumer goods of a relatively low value, bought on impulse and designed for young people.

Product websites, i.e. online services dedicated to describing one particular product, may be perceived as an online exemplification of this strategy. The main goal of product websites is to promote a given product, usually by associating it with a particular atmosphere and involving customers in various product-oriented processes, and therefore providing them with experience that they will associate with a given brand or product. Frequently, information on particular features of products are omitted or displayed in a way that will not distract the customers from the experience in which they participate. Another example of including customer experience in promotional activities is advergames, i.e. inclusion of promotional contents in video games.

Experience-based *satisfaction building* relies on supplying customers with positive experience and at the same time reducing the negative ones. The company may not provide any additional experiences, except of those which stem directly from the co-operation with the customer. The most important element of the strategy is to provide benefits that are most important for the customers and reduce the stimuli

¹² Experience goods are frequently contrasted with search goods, the utility of which may be evaluated based on product features and characteristic; and with credence goods, the quality of which may be ascertained only based on opinions provided by a third party (e.g. a physician).

that may entail negative emotions. The idea seems rather simple, nevertheless it is often described with complex customer satisfaction models, which show which factors may contribute to the creation of positive and negative experiences.

This concept seems particularly useful in the case of products or services that are of considerable importance for the customer and require frequent contacts with the company (e.g. corporate services). Experience-based satisfaction building is employed e.g. by Amazon.com. The company makes sure that each contact with the company increases customer satisfaction, but at the same time it does not provide the customers with experiences that are not directly linked with the scope of its operations.

Customer experiences may come in addition to products or services, but they may equally play the role of the *core product*. The concept relies on offering customers the place where they will be able to engage in an activity that will provide them with the desired experiences. Such a strategy is commonly employed for digitalised experience goods, i.e. products or services delivered via Internet, the value of which may be assessed only after or upon consumption. This is the case of online games, gambling services or erotic websites.

The process of delivering experiences as basic products carried out via Internet entails various consequences. If the value proposition is free of physical elements, the importance of physical localisation of a given venture decreases or even completely disappears. Nevertheless, it is still limited by particular legal and social conditions, such as communication or customer preferences, as well as by legal aspects of delivering particular products or services (e.g. sports betting). Marginal importance of the physical localisation of ventures helps to conduct them on a global scale. It is equally associated with the cost structure typical for such ventures. Ventures characterised by high share of fixed costs and low variable costs that are based on the basic product strategy tend to generate incomes when conducted on a large scale. That is why these kinds of activities are usually of international or global character.

2.6 Network Effects

2.6.1 The Nature of Network Effects

In the modern economy, one of the factors that have the most important impact on the creation of value for customer are the so-called network effects (also referred to as network externalities). This term refers to a situation in which value for a customer becomes dependent on the number of users of the given product (Wang, Chen, & Xie, 2010).

Network effects appear most frequently in the case of products and services related with the Internet or based on telecommunication/IT technologies. The products that use the network effect are, among others, various communication tools (telephone, fax, online messengers), tools enabling interaction between users (online auctions, discussion forums, social networking services), and programs that

use a given standard (software, memory storage devices, cassettes, photographic films).

Among all the benefits delivered to customers through products, one can discern the so-called *network-independent benefits* (the benefits that are not dependent of the network and appear as the result of the use of the product itself, and not as the result of interaction with other users) and *network benefits* which appear as the result of interactions with other users and produce the network effect.

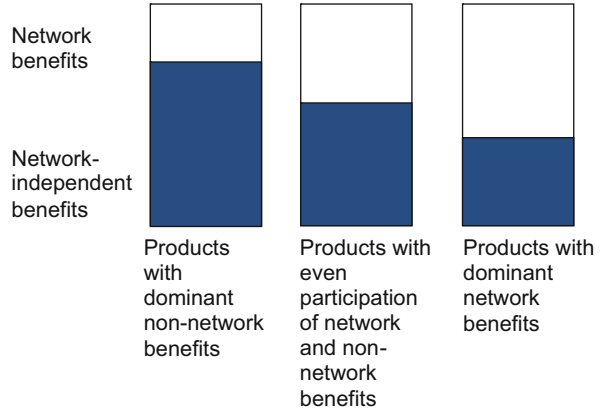
When it comes to the products and services enabling communication, interaction or sharing resources with other users, in the set of all the benefits delivered by the company, the network benefits will prevail. This situation is typical for online messengers, social networking services, file exchange websites, etc. The products characterised by a similar level of network and network-independent benefits are, for example, blogs (network-independent benefits are generated by authors and network benefits are generated by readers, by means of comments), text editors (non-network benefits: possibility to edit texts; network benefits: compatibility with other programs based on the same standard), and mobile phones (network benefits: communication with other users; non-network benefits: alarm clock, calendar, camera, etc.). In some Internet-based ventures non-network benefits prevail. This is the case of online stores, in which the selling process is effectuated without participation of other customers, as well as information websites, where the informative content is created by the editorial staff (in this case, network benefits are associated with comments posted by users). It is a purely subjective matter to determine the ratio between the types of benefits, due to the specific nature of value for customer. For some Internet users, comments posted on blogs and information, as well as reviews on the websites of online stores, may present a dominant value.

Extending products or services with the network element may be perceived as an action aiming at increasing value for customer. In this context, the case of Kindle, an e-book reader, should be mentioned. It enables reading of digital editions of books purchased on Amazon.com, and by that provides network independent benefits, which are not influenced by other users. Nevertheless, the company enriches the product with network benefits. In the book text the readers may find underlined passages, which were marked as important by other Kindle. In this way, the company provides additional information, unavailable in the case of traditional books, and therefore increases value to customer (Fig. 2.7).

Products that are in a lesser extent associated with the Internet are also characterised by variable participation of the two kinds of benefits. In the case of cameras, where the network effect concerns above all memory cards or photographic films, the customer relies mostly on network-independent benefits, such as low costs or quick access to photos.

For the needs of the study described below, Srinivasan, Lilien, and Rangaswamy (2004) put products on a scale that reflects the importance of network effects among other benefits. The products with the lowest ranking include electric toothbrush, because its changeable head has a standard design and can be provided by various manufacturers, answering machine, since it relies on the fixed telephony standard, and cameras that use 35-mm films. The products with the highest level of network

Fig. 2.7 Product categorisation based on the dominance of network or non-network benefits. Source: own work



externalities are operating systems for personal computers, PDA devices and fax machines.

Further analysis allows to discern two aspects of the phenomenon, i.e. direct and indirect network effect. The *direct network effect* arises when a customer benefits directly from the increasing number of the product's users and from new possibilities that it opens. The *indirect effect* arises when there is a positive relation between the customer's benefit because of complementary products and the increasing number of users (Srinivasan et al., 2004).

It is of equal importance to mention the distinction between unilateral and bilateral (multilateral) network effects. A *unilateral network effect* takes place when, within the network users have the same needs and perform similar functions. An addition of a new customer increases benefits to all the users of the network, as in the case of telephony or web messengers. A *bilateral network effect* is associated with multi-sided markets. It exists when there is a division between users, depending on the role they play. Hence, the fact that a user joins one group can have a positive influence on the benefits of the other group's members, but at the same time can decrease the benefits of the group they have joined.

2.6.2 Multi-sided Platforms

Usually, companies build relationships with customers, who, in exchange for products and services they purchase, provide the company with revenues and other values. It is the basic model of exchange between the company and customers. Some companies operate as multi-sided platforms (on multi-sided markets) and in the value exchange process need to get two or more distinct groups of customers (bilateral, two-sided network effect) (Silverthorne, 2006). There are many examples of multi-sided platforms. Internet portals create value for both their customers and advertisers. In the case of online auction services, relationships are built with buyers, but also with sellers. Operating systems developers need to

cooperate with companies that produce software compatible with their system, but also with hardware producers and regular users. Evans and Schmalensee (2007) refer to the companies operating on multi-sided markets as ‘catalysts’, which suggests that such companies enable, or at least facilitate, entering into transactions, and thus limit market failures. Evans, Hagiu, and Schmalensee, in the context of companies operating on multi-sided markets, equally employ the notion of software platforms, by means of which two groups of customers may enter into interaction (Evans, Hagiu, & Schmalensee, 2006; Hagiu and Yoffie (2009).

According to Evans (2003) multi-sided platforms have the following features:

- *There exist at least two separate groups of customers.* One group may be comprised of online auction sellers, the other—of buyers. However, that customers are not permanently ascribed to one group. Customers who sell products via online auctions may be at the same time buyers. Nevertheless, from the point of view of one transaction a customer may be either a buyer or a seller.
- *There exists a multi-sided (bilateral) network effect between the aforementioned groups of customers.* The increase in number of customers from one group causes benefits for the other group. The attractiveness of a selling in online auction increases with the number of buyers, but a similar situation does not take place when it comes to an increase in number of sellers. It should be noted that sometimes only one group benefits from network benefits. The increase of the number of advertisers does not necessarily lead to the increase of value for readers or viewers, and sometimes may even diminish their number.
- *There exists an intermediary who services the above mentioned customer groups and benefits from multi-sided network effects.* Buyers and sellers could conclude transactions without the help of an intermediary, i.e. online auction service. They do not do it, however, due to transaction costs. An intermediary reduces transaction costs and internalises external effects, and by doing so allows buyers and sellers to draw benefits from network effects.

The majority of benefits offered to customers by online auctions fall in the category of network benefits and result from interactions with the second group of users. Online auctions also provide network independent benefits, in the creation of which the second group of users does not take part. This category includes customer service, ensuring transaction safety, providing customers with useful tips etc. (see Fig. 2.8).

One of the most important problems, from the point of view of the management of companies that operate as multi-sided platforms, is how to allocate benefits and means between the two customer groups.

In many publications, the problem is reduced to the question of price management. In such an approach, the price becomes a mechanism that regulates access to particular benefits. The main goal of a company operating on a one- and multi-sided market is to generate benefits, such as profit or the company’s value. Maximisation of benefits for the owners of multi-sided platforms in the first place usually requires

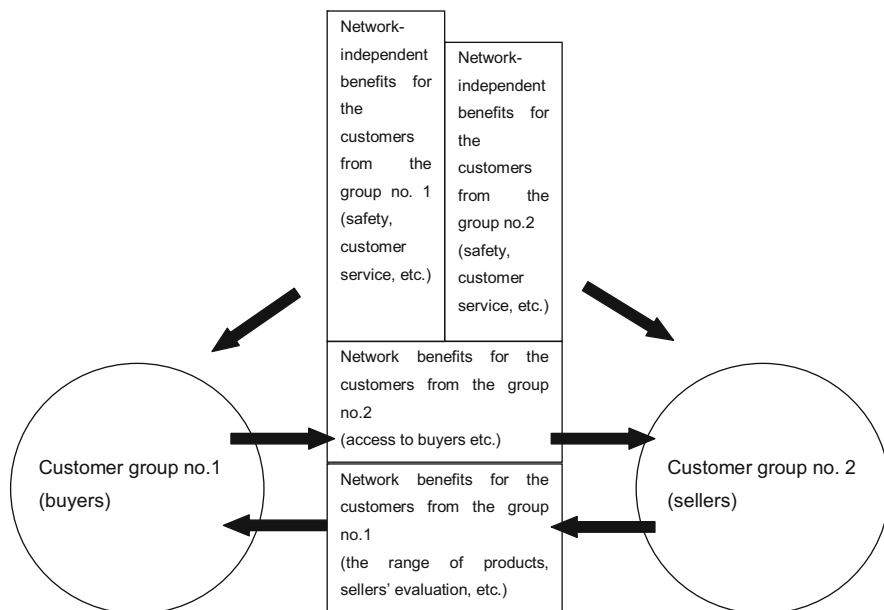


Fig. 2.8 The value exchange in a multi-sided platform on the example of online auction buyers and sellers. Source: own work

reaching a certain balance, or at least proportion, between the both groups of customers. Therefore, there arises a necessity to regulate the number of customers in each group, which frequently requires very elaborate actions.

A balance can be reached not only by means of pricing instruments. Apart from price regulation, companies may increase or decrease value for customer, e.g. by offering additional warranties or by organising lotteries for loyal customers. Companies may also influence the number of customers from a particular group by promotional campaigns or education, as it was done by e-Bay, which in the 1990s organised training courses for potential sellers (Yoffie & Kwak, 2002).

Online auction service may invest in acquisition of sellers or buyers only, it may divide the expenses between the two groups, or distribute them in any other manner. When it comes to pricing policy, there also exist many different possibilities. Both customer groups may be burdened with transaction fees. The company may also require payments from only one group, and subsidise the other group, e.g. through contests with prizes.

Given the fact that, among all the mechanisms of regulation of the number of customers from complementary groups, promotional campaigns as well as offering additional benefits are the most difficult to identify (provided that company data are unavailable), in the following part prices will be perceived as a regulatory mechanism.

In practice, price strategies employed by a company are usually asymmetrical. In other words, it often happens that one of the groups is burdened with costs, and the other benefits from free services or at least from their limited costs.

Online auctions often burden the sellers not only with sales fee, but it also require payments for putting up the products for sale. On the other hand, buyers are not charged by the company. Microsoft charges game developers for the possibility to create games for Xbox. By purchasing game consoles, final users also generate incomes for the company, although some researchers claim that the company incurred losses on the sale of consoles to users by pricing them below production cost (Silverthorne, 2006). The same strategy is employed by Apple for iPhone applications: the company charges both the users and the companies that develop software available in the App Store ([Enrolling in Apple Developer Programs, n.d.](#)). On the other hand, developers of software operating in other systems often do not need to pay licence fees.

Online portals subsidise their users by providing them with free, yet frequently expensive to develop, contents, burdening advertisers with the costs that arise. Price comparison services charge online stores, to which they direct customers that use their services for free. Shopping malls receive incomes in the form of rent from the shop owners, without charging customers for the visit and while usually providing them with free parking lots.

Therefore, it seems important to ask what kind of premises should be taken into account when determining the strategy of the relationship development with both groups of customers while aiming at income maximisation. For it does not seem correct to operate in analogy to the classic situation and maximise benefits for each group separately. According to Evans and Schmalensee (2007), it seems justified to decrease prices for the customers that are important to initiate a transaction, i.e. customers that are perceived by complementary customers as attractive business partners. It is also suggested that a company should:

- Subsidise the most price-sensitive group of customers
- Charge the group of customers who are the most dependent on the size of the other group¹³

In order to apply such a solution, the company must be aware of the price sensitivity of both groups and know how sensitive one group is to a change in size of the other one. Moreover, this approach relies on the assumption that the most price-sensitive group is the least sensitive to the change in the other group's size. E.g. in the case of newspapers, if the change of the newspaper price has a greater influence on the number of readers than a similar change in the price of advertisements has on the size of incomes (simplifying the matter), the publishing house should subsidise readers and charge advertisers with higher fees.

¹³ A conclusion shown in a presentation on Google strategies prepared by Faber Novel, which is available at: http://www.fabernovel.com/sites/default/files/Google_14Q_en.pdf, viewed 2012.03.15.

Hagiu (2004) presents a different method of determining the *pricing policy*. The most important criterion is the time of consumption of a given product, which is associated with varying demand. When the consumption period is relatively short (as in the case of videogames, movies, and books), the demand becomes more varied. The products offered for a given platform become less and less subsidiary, hence the competition decreases. It allows the producers to raise prices, and thereby increase their acceptance to be charged with higher fees by the platform company. Hagiu believes that such a situation takes place in the case of videogames, which are characterised by a relatively short lifecycle and the variety of which is rather high. Console manufacturers earn the majority of their profits from game publishers. On the other hand, the life cycle of other application software is much longer and diversification of the users' needs—much lower. Therefore, operating system vendors make the largest share of incomes on users and do not charge software developers.

When analysing pricing strategy, it should be also mentioned what kinds of activities are subject to fees. Usually, customers are charged for access to a given service, or for every single use. Credit card owners are charged once a year for the ability to use a credit card and usually do not have to pay additional fees for every transaction effectuated by this means of payment. On the other hand, companies that accept payments by credit card have to pay a commission for every transaction (facility use fee) and are burdened with some fixed charges (access fee) (Evans & Schmalensee, 2007).

2.6.3 Competing by Means of Network Effect

In the scope of network effect the notion of customer portfolio is replaced by the notion of customer network, due to the dynamic character of relationships between customers. In this context, Bob Metcalfe's law, according to which the value of a network is proportional to the square of the number of its users (Briscoe, Odlyzko, & Tilly, 2006), is often quoted. The law states that if the users' number doubles, the network's value quadruples. Metcalfe's law was formulated in regard to the value of a telecommunication network, but it can be also applied in respect of other data exchange systems, including websites falling into the 'social media' category. Opponents accuse Metcalfe of excessive simplification in assuming that all network users contribute in the same manner (Briscoe et al., 2006). The user's value will depend largely on the development of the network itself. In the initial period, customer acquisition is significantly more difficult than when a network reaches its critical mass. Therefore, the users acquired earlier are of greater value to company than the subsequent ones. Similar correlations can be noted in the case of product marketing that does not use the network effect. Usually, pioneer customers are more important for a company than following customers, because not only do they purchase products, but provide their colleagues with information about given goods, etc.

According to Shapiro and Varian, pioneer companies that enter markets on which network effects are particularly pronounced can count on the so-called benefits of the first move. It is a possibility to gain a considerable number of customers (a customer base) in a short period of time, which is likely to restrict market access for competition. Therefore, a company should aim at reaching critical mass, as it can become a serious barrier to potential rivals. In such situation, two effects can appear: the lock-in effect which prevents customers from leaving the company due to the lack of satisfactory alternative solutions, and the lock-out effect, which consists of eliminating competition from the market (Shapiro & Varian, 1998: 168). Eventually, it leads to the situation when due to a significant number of customers using one solution, the costs of switching suppliers increase and the particular solution becomes a market standard. The popularity of Microsoft Windows operating systems can serve as an example of the said effect. With the increasing number of Microsoft operating system users increased the number of computer programs designed for these particular operating systems, which entailed an increase in the number of customers, etc. The study results presented in the following section reveal however that the situation described by Shapiro and Varian does not always take place. Quite frequently, it's a successor company that gains a leader position, and not the pioneer company.

In the article *Does Quality Win? Network Effects Versus Quality in High-Tech Markets*, Tellis, Yin, and Niraj (2009) disagree with the aforementioned theory. The authors conducted a research to determine which of the two—precedence in offering a product (service), or product's quality—are the critical drivers of success for the network effect-dominated markets. The problem is important not only from the point of view of marketing strategies, but also from the point of view of economy, as it concerns a much discussed issue: whether the market is always effective (in this case: whether a product offering the highest value always becomes the market leader), or quite the contrary—is it subject to hysteresis, i.e. does the balance and structure of the market depend on the prior events. Therefore, the predominant value of a product does not necessarily have to translate into market predominance.

Opinions on the subject are divided. Katz and Shapiro claim that the markets that are driven by network effects show a tendency to get locked-in with outdated standards or technologies (Tellis et al., 2009). Krugman doubts whether markets aim at the best possible solutions and whether historical events on the market have an influence on its future shape (outcome of market competition) (Tellis et al., 2009). On the other hand, some authors claim that network effects do not protect markets from competition, hence making them efficient (Tellis et al., 2009).

Tellis, Yin & Niraj's research was conducted on various product categories related to personal computers, mainly software. The authors assessed the quality of products resorting to ratings and reviews from professional journals. The study yielded the following results concerning markets with the presence of network effects:

- Change of market leader usually takes 3.8 years.
- New quality leader becomes market leader averagely not longer than after 1–2 years.
- Quality is a stronger determinant of market share than network effect.
- Network effects do not make market inefficient.

The most important element of the above-mentioned research is, possibly, the correlation between quality and network effects. According to the authors, the two variables do not diverge but converge, since the network effect enables the quality leader to gain the market leadership in a considerably shorter period of time. The authors note that such a situation takes place when customers notice the difference in quality of the products, a network effect occurs and switching costs are not excessively high.

In the case of two-sided network effects, the analysis should not be limited to the problem of choice between quantity and quality customers, but also include the problem of the order of customer acquisition. It may be stated that customers who display lower sensibility to a delay in transactions or to lack of interactions with the customers from the other group should be acquired in the first place. Such an answer seems satisfactory for intermediary services. The acceptance of a delay in transactions of a company that sells products via online auctions usually exceeds the patience of customers willing to purchase goods. This observation might be extended to the most of relationships between companies and individual customers.

The situation becomes more complicated in different situations or when it comes to acquisition of business customers. The problem is particularly pronounced for programming platforms which co-operate with two groups of customers: users and developers of software compatible with a given platform. Contrarily to the presentation of offers on an intermediary website, software development entails considerable costs. Moreover, such ventures are associated with an important risk, since it is never certain whether customers will decide to choose a given platform, which is indispensable for using the developer's software. On the other hand, delaying the decision may lead to a situation where the competitors will take the developer's place.

Such a problem was encountered by Palm, which in 1997 introduced a small personal computer—PalmPilot. At the time, the company was not able to convince software developers to create programs for this platform. Therefore, it decided to develop software on its own. Thus, by offering network-independent benefits, the company acted in a way typical for one-sided companies. Subsequently, after acquiring a certain number of customers, Palm was able to invite some companies to cooperation. Hence, it transformed from a one-sided to a multi-sided company (Evans & Schmalensee, 2007).

An interesting strategy of persuading software developers to cooperate was employed by Nintendo. In 1983 the company introduced a gaming console with a built-in protection feature against games that were not licensed by the company. In such a manner, the company increased games' quality level, on one hand by eliminating mediocre titles, and on the other, by acquiring some exclusive titles

from several renowned developers. Nevertheless, at the stage of console introduction, Nintendo cooperated solely with four software producers, employing a strategy similar to the one elaborated by Palm, i.e. production of its own games. Moreover, the company was selling the consoles below production costs, aiming at the acquisition of a greater market share. Such proceedings were conform with the company's pricing policy, which consisted in burdening software developers with royalties, which amounted to 20 % in respect to the revenues from selling games (Evans & Schmalensee, 2007). Sony was also accused of subsidising its game consoles. Michael Dell commented on the situation as follows: "When Sony cuts the prices on their PlayStations, their stock price goes up. Every time I cut prices, my stock price goes down. If you don't understand why that happens, you don't understand the console business" (Kim, 2004).

2.7 Strategies of Internet-Based Value Propositions

In order to summarise this chapter, five strategies of Internet-based value propositions will be presented. The strategies will be based on the aforementioned methods of increasing value for customer (increasing benefits, reducing prices, reducing non-financial costs) and will take into account the phenomena that influence the value proposition for the customer (virtualisation, value co-creation, experience as a value to customer, and network effects).

In traditional economy, companies are often faced with the problem of relating the level of benefits with the level of prices. Usually, companies that offer lower value charge lower fees than the companies that offer value of higher level. In the case of the Internet, employing such a strategy does not seem justified. On the Internet, the strategy of providing important value for high prices is not usually applied (Kim, 2004). In traditional economy, it is usually related with products of high quality or of a recognisable brand. Internet-based brands, however, seem to be of more egalitarian character. Moreover, many online companies provide their customers with free services, which makes impossible to associate the quality with the price.

Online competition may be perceived through the prism of five strategies of increasing the value to customer, that is: strategy of efficiency, free benefits, complete customer solutions, unique benefits and value co-creation. It should be stressed that these strategies may be implemented simultaneously, since they have all been grouped on different basis.

2.7.1 Efficiency Strategy

In the efficiency strategy, the company supplies customers with solutions that decrease costs (e.g. transactional costs) and therefore increase efficiency and enable customers to save time and money.

Such a strategy is frequently used by online auction services. They offer an extensive range of products, which usually cannot be attained by traditional companies. By aggregating demand and wide choice of products, such companies are able to reduce customer transactional costs related with search and analysis of available offers. Moreover, online auction services are able to decrease customer costs by reducing information asymmetry, e.g. by introducing seller evaluation systems. It should be also noticed that the companies also provide information on the buyers which helps to limit the risk, and therefore reduce transactional costs, to the sellers. Internet largely contributed to reduction of transactional costs. The research conducted by Garicano and Kaplan (2001) shows that in the case of used car auctions, the transaction costs arising from the introduction of the Internet were reduced by half, compared to traditional means of distribution.

2.7.2 Free Benefit Strategy

The free benefit strategy consists of providing customers with solutions for which they do not have to pay. Anderson (2009), as it was mentioned before, discerned the following methods of providing customers with free benefits.

Direct cross-subsidies mean that a customer pays for some products and receives another product or service for free (e.g. delivery). Another situation, commonly observed in *multi-sided platforms*, is when a group of users gains free access to a given service (e.g. articles, e-mail account, search engine), and the incomes for the company are generated by the other customer group (e.g. advertisers). Another method, frequently applied on the Internet, is the so-called *freemium strategy*, which consists of acquiring customers that take advantage of free benefits and then offering them additional services, for which they have to pay. The last method discussed by Anderson is to operate on a *nonmonetary market*, i.e. a situation when some entities offer benefits for free without being motivated by possible financial benefits.

2.7.3 Strategy of Complete Customer Solutions

The main purpose of the strategy of complete customer solutions is to offer customers a wide range of benefits of particular types. Online shops are able to offer a wide range of products, since the technological constraints they encounter are not particularly important, due to the fact that in the case of the most stores, the company enters into contact with a tangible product only after the customer orders it. Consequently, online stores often shape their offer according to the long tail principle, providing their customers with both popular and niche products and services. Moreover, a lot of companies shape their offer based on the so-called economy of scope. This strategy relies on providing the customers with product of various, yet related, categories. In other words, a travel agency, apart from tours, may offer insurance, a possibility to rent a car, etc.

One of the most common examples of companies that use the strategy of complete customer solutions is Amazon.com. The company offers a wide range of products (the long tail principle), selling e.g. niche books and music albums, and supplies products of various categories e.g. home appliance (economy of scope). Another example may be provided by Google. By offering a wide range of online services, the company provides its customers with the possibility to search, exchange and manage information on the Internet.

2.7.4 Strategy of Unique Benefits

When a company uses the strategy of unique benefits, it offers solutions which cannot be easily found on a given market. From the company's perspective, this technique may be very efficient, since it allows charging high prices for its unique product and services. This strategy, however, presents also some inconveniences, such as, for example, the difficulty in developing unusual benefits and sustaining their long-term scarcity. The strategy of delivering unique benefits via Internet may be employed through innovation, privileged access to resources or the strategy of a market niche.

Innovations may help to produce a situation in which the company is able to offer unique services to its customers. Such is the case e.g. of Google, which owing to its innovativeness in the search technology was able to gain a 96 % share of online searches carried out by the Polish Internet users (Gemius, 2014).

The strategy of unique benefits may be also associated with *privileged access to resources*. This strategy is employed e.g. by online ventures that offer content which cannot be found on other websites. The most typical example are the websites that provide information on transport connections, such as train and bus schedules. It is also employed, to a certain extent, by online editions of newspapers, which give access to current and archive articles.

Uniqueness of the offered benefits may be also achieved through *the strategy of a market niche*, i.e. actions that concentrate on a narrow part of the market, where the needs of customers are very particular and may be satisfied only with a specific value proposition. Niche-oriented activities are frequently associated with low level of competition and higher profit margin. An online venture which is typically quoted in the context of such a strategy are online stores offering unusual shoe sizes.

The companies that offer *unique benefits*, for which customer demand exists, may charge its customers with high level costs. In this context, it may mean both high-level prices, and high-level transaction costs (e.g. a slowly functioning website with low-level usability). Otherwise, when a company provides undiversified services that are also offered by numerous competitors, limitation of customer-encountered monetary and nonmonetary costs becomes the main method of increasing value for customer. Such a situation is particularly pronounced in the case of online stores selling home appliances, books, music and online booking services.

2.7.5 Strategy of Value Co-creation

The main goal of the strategy of value co-creation is to include customers in the process of creating value propositions, which will later be delivered to the users participating in the process or to other customers.

In the first case, customers aim at widely perceived individualisation of value proposition, i.e. they engage in proceedings the main goal of which is to produce solutions responding to their needs and expectations (mass customisation). The customer becomes involved in the value exchange with the company, and thereby receives an individualised value proposition. Customers may purchase customised computers, shoes, and clothes, as well as (to a certain extent) customised cars. Customers involved in value co-creation oriented on other users take actions aimed at producing benefits which will satisfy the needs of other customers. These kinds of actions may have many facets. The customers may e.g. publish product reviews (e.g. on the online store websites), enter in interactions with other users (e.g. by means of social networking services), create and publish contents (e.g. Wikipedia), or co-design software (e.g. open-source movement).

It should be noted that usually the aforementioned strategies are employed simultaneously. In this context, the case of Facebook seems particularly interesting. The service applies the strategy of efficiency, enabling its users to stay in continuous contact with a large group of their friends and colleagues. Maintaining such relations would be for possible without the service, nevertheless it would entail much higher transactional costs. Facebook provides its users with free benefits, at the same charging them for certain solutions (freemium) and also generating the advertisement revenues. The options offered by the company (publishing photos, information, and multimedia; sending messages to other users; communicating via online messengers; participating in discussion groups; subscribing to fanpages) fall in the category of complex communication solutions. From the users' perspective, Facebook offers unique benefits, such as social graphs (friend networks) of particular users, user-published contents, or the record of interactions with other customers. Such items are extremely difficult to transfer to other services. Moreover, Facebook relies on value co-creation, since one of its key features is the access to contents regularly created, commended or published by other users.

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