Value Proposition and Firm Performance: Segmentation of Polish Online Companies.

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Abstract:

The purpose of the paper was to identify approaches to value proposition in online companies and their consequences to firm performance. The paper presents a deconstructivist view on online value proposition. Based on this approach a survey of 150 Polish online firms was conducted. The research allowed to distinguish five segments of companies: suppliers of unique offerings, specialized newcomers, comprehensive incumbents, productivity enhancers and run-of-the-mill retailers. The findings contradict some results reported in other related studies, e.g. despite different characteristics identified segments do not show statistically significant differences in sales profit margin.

Keywords:

Value proposition, Internet, e-commerce, e-marketing, firm performance, segmentation, Poland, CEE

Introduction

The focal point of this paper is the value proposition of Internet companies. In particular, what are its building blocks and how it is related to business performance metrics. We define value proposition as an outcome of a strategic process reflecting company's believes on what its customers value the most and how it should be delivered to provide competitive advantage (Rintamaki et al., 2007). In other words, a value proposition determines functional and emotional benefits that customers can derive from a company's offering (Payne and Frow, 2014).

Despite its popularity in academic and managerial literature there is little empirical research on the value proposition of firms operating on the Internet. Addressing this knowledge gap the paper aims to identify approaches to value proposition in online companies and how they differentiate firms' performance. Following literature review and own observations, we identify relevant aspects of value proposals of Internet companies and subsequently verify our choice with a statistical segmentation and profiling procedure performed on original survey data from Polish online businesses

The paper is structured as follows. First, we present pertinent theoretical perspectives that informed the research design in this study. Then we outline the research approach including sampling procedure and statistical analysis methods. Survey findings are discussed next with discussion to follow. The final section includes an overview of limitations of the study and suggestions for further research.

Literature review

The major theoretical framework that informed the research design was the deconstructivist view of strategy popularized by Kim and Mauborgne (2005). Specifically, it was instrumental in selecting a set of value proposition components that were pertinent for B2C Internet companies. Kim and Mauborgne used it as a key element of their strategy canvas analytic tool for identifying a blue ocean strategy through mapping out industries and individual companies. The deconstructive approach visually depicts major factors that an industry competes on and utility or value levels received by customers across all factors from various offerings available in the market. In the Internet context, the method served to examine the value proposition of Amazon.com (Lindič and da Silva, 2011), which building blocks were identified as performance, ease of use, reliability, flexibility and affectivity. According to this perspective, all Amazon's offerings bring total customer value by lowered or heightened involvement in each of those factors. In another study, Clarke (2001) argued that implementing m-commerce results in a value proposition enhanced by new factors of ubiquity, localization, personalization and convenience. A primary source of inspiration for the authors of the present study was the understanding of value proposition put forward by the work of Amit and Zott (2001). They suggested value creation in e-business is achieved through novelty, lock-in, complementarities and efficiency. In their view, developing each of the four dimensions should benefit companies with increased market and financial performance. However their later research (Amit and Zott, 2007a, 2007b) as well as that by other authors (Zaborek et al., 2013) provided mixed evidence on achieved performance gains.

Segmentation of companies based on the type of employed value proposition has a long history in management literature. Probably the best known contribution in this field is Michael Porter's view on strategy (1998). According to Porter, a company can either be a differentiator or a price leader. Attempts to combine both approaches lead to lower financial performance. Hax (2010) distinguished between three strategies in networked economy: best product (concentration on product superiority), total customer solutions (concentration on customer need fulfilment and relationships) and system lock-in (alliance with companies offering complementary products). As stated in their research, best product and total customer solutions were the most often adopted strategies, though the most effective in terms of financial performance was lock-in.

Theoretical framework of the study

As already mentioned, deconstructive approach to value proposition aims to capture the totality of constituent benefits for a customer as well as costs that they have to incur. In traditional economy, companies are often faced with the problem of relating customer value proposition to the level of prices. Usually, companies that offer lower value also charge lower fees than the companies with more valuable offerings. In the case of the Internet following such patterns is not always justified. On the Internet, the strategy of providing extraordinary value at a high price is quite rare (Kim et al., 2004). In traditional economy, it is typically reserved for products of high quality or of a recognisable brand. Internet-based brands, however, seem to be of a more egalitarian character. Moreover, many online companies

provide their customers with free products. As the price in a product category remains constant (here: equals zero), it cannot serve as a basis for distinguishing different quality-price strategies.

As a consequence of the above limitations, we use a more sophisticated, multidimensional approach to value proposition modelling, which seems to better reflect the specificity of the Internet. Accordingly, the Internet-based customer value proposition can be conceptualized as consisting of five dimensions including **customer efficiency, free benefits, complete customer solutions, uniqueness and value co-creation** (Doligalski, 2015). These dimensions can be used for analyzing value propositions of companies with online operations. It has to be noted, that in keeping with the deconstructive approach these dimensions do not represent mutually exclusive strategies but rather a company can create its own unique value proposition by combining different levels of all dimensions. As such, a company does not have to excel in all five dimensions, but an increase in any of these should lead to a higher attractiveness of the resulting offer.

Table 1: Dimensions of the Internet-based customer value proposition

Customer efficiency	Providing solutions that decrease costs and allow customers to perform various tasks faster or with better results. In consequence customers take advantage of time and money savings and increased productivity. Usually customers may solve their problems without these solutions but at considerably higher transactional costs.
Free benefits	Offering free benefits may take the form of direct cross-subsidies (paying for some products and receiving another product or service for free - e.g. free delivery); three party market (servicing two complementary groups of customers, one of which is subsidised, a.k.a. multisided markets – e.g. readers and advertisers); freemium model (offering basic solutions for free and charging only for premium solutions); nonmonetary market (providing goods for free without being motivated by possible financial benefits - e.g. free software) or piracy (e.g. websites allowing file exchange) (Anderson, 2009).
Complete customer solutions	Providing a wide range of products of particular types resulting from the long tail strategy (both popular and niche products) or economies of scope (products of assorted yet related categories).
Uniqueness	Offering 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 products or services. The downside is the difficulty in developing unique solutions and sustaining their long-term scarcity.
Value co-creation	Active role of customers in the individualisation process of value proposition (mass customisation) or in value co-creation oriented on other users (creating solutions which will satisfy the needs of other customers - e.g. product reviews, open-source movement).

Based on: T. Doligalski (2015), *Internet-based Customer Value Management*, Springer, Heilderberg (*forthcoming*).

The above strategies can be employed simultaneously in any number of possible combinations. In this context, the case of an online auction seems particularly informative. This service provides customers with enhanced efficiency, enabling its users to buy and sell everyday items. It is surely possible without online auctions but typically at higher transactional costs. Online auctions often provide its buyers with free values, as it is the seller who pays commission. The scope of items offered in the auctions, as well as additional services such as online payments fall in the category of complex solutions. From the buyer's perspective the company may offer unique value if the range of sellers is wider or includes unique and desirable target groups as compared to alternative marketplaces. Additional utility is given by scoring systems reflecting reliability of buyers based on their past behavior. This credibility based on a scoring system is, however, not transferable to other websites, making for a unique utility of a given auctioning solution. The value proposition of online auctions is only possible through co-creation of buyers, sellers and businesses that manage electronic trading platforms. Co-creation is here achieved through communication, transactions and other interactions of involved parties. In contrast, some online ventures can adopt the five value proposition dimensions only to a limited degree. As an example, a typical online store selling specialized products may benefit from a unique offer of a narrow range (low comprehensiveness). The store may not provide services for free except free shipment of large orders. It increases customer's efficiency by reducing time and effort in travelling to a traditional store. It may also employ value co-creation in the form of product reviews or posts from a customer community that emerged around the store.

The above components of value proposition served as the conceptual basis of the study and were operationalized in the questionnaire as Likert scale items.

Research method

Data on characteristics of business models employed by Polish Internet companies were collected through CATI survey in August 2012. The respondents were managers of Polish firms using Internet as a distribution channel for retailing and services. The sample purposefully excluded several types of companies due to their exceptionally complex and distinctive value creation mechanisms that were difficult to operationalize with questionnaire items. The omissions included major Internet portals, advertising and web design agencies, media brokers, telecommunications companies, banks, insurers and operators of large popular news and lifestyle portals. The net sample of 150 units was obtained by random selection from a database of major Internet companies compiled by the authors of the present study by merging several available rankings and listings of various types of Internet businesses operating in Poland. To the authors' best knowledge the resultant sampling frame encompassed almost every medium and large Internet business in Poland and thus could be considered an accurate representation of the general population of the survey. The studied companies comprised 57% of retailers and 43% of service providers; 63% of them had sales of tangible products as the main revenue stream, 17.3% generated most incomes from sales of virtual products, while 16% relied above all on proceeds from advertising. Around 25% of businesses generated more than half of their sales outside of the Internet.

The first step in statistical analysis involved exploratory factor analysis to decrease the number of variables. Through the application of the principal components method the original pool of 27 Likert scale items was reduced to 9 more general variables. Subsequently, 5 of those components, that represented the most common value drivers on the Internet, were used as inputs in a cluster analysis. The objective of the cluster analysis was to identify homogenous segments of Polish Internet companies in terms of their means of creating value proposals for customers. The used clustering procedure was the two-step method available in SPSS 22, with the log-likelihood distance measure and AIC criterion for selecting the optimal number of groupings. Considering that the segmentation variables were ratio scaled, had approximately normal distribution and were independent (as components from the orthogonal factor analysis always are), the assumptions for the two two-step procedure were fully met and hence the method was expected to yield reliable and interpretable results (Bacher et al., 2004).

The resultant segments were subsequently profiled using ANOVA tests. Profiling involved studying differences between segments across substantive variables not employed in the clustering algorithm, which gave more meaning to the groupings and suggested the degree of nomological validity of the classification.

Research findings

The principal component analysis identified 9 latent components with eigenvalues greater than 1 that represented 72% of the total variance contained in the 27 items included in the survey questionnaire (for the full rotated component matrix refer to appendix). The amount of extracted variance as well as the KMO measure of sampling adequacy (0.743) both suggested that the obtained composite variables are an adequate representation of the raw data. Based on the factor loadings of individual variables the retained components were labeled as follows:

- Co-creation of value through cooperation with business partners and customers
- Providing customers with productivity benefits (e.g. time savings)
- Providing free content or services to customers (e.g. offering articles free of charge and sourcing revenues from advertisements)
- Employing measures to enhance customer loyalty
- Offering unique products (i.e. products that serve common needs but in a unique manner)
- Building exit barriers for customers (i.e. inducing switching costs)
- Proposing personalization options
- Offering a comprehensive range of products
- Offering niche products (i.e. products that serve the needs of a small fraction of the market)

Considering that segmentation is thought to be the most effective when performed on the basis of a limited number of variables, that are uncorrelated and were selected to accurately reflect the most important aspects of the investigated phenomenon (Mooi and Sarstedt, 2011,

p. 242) the authors of the present article chose as the inputs for the segmentation algorithm the 5 characteristics listed below:

- Customer efficiency
- Free benefits
- Complete customer solutions
- Uniqueness
- Value co-creation

The segmentation routine yielded a solution with 5 distinct groupings. The interpretation of differences and similarities among clusters was guided by cluster centroids, which are defined as vectors of means of segmentation variables computed separately for each segment. The centroids are shown in the next table.

Table 2: Centroids of segmentation variables and p-values for ANOVA tests

Segmentation variables	**Segments**					**Total sample**	**p-values for ANOVA tests**
	1	**2**	**3**	**4**	**5**		
Customer efficiency	0.36	-0.56	0.2	1.68	-0.59	0.00	<0.001
Value co-creation	-0.37	0.03	-1.9	0.37	0.3	0.00	<0.001
Complete customer solutions	-0.74	-1.51	0.53	0.21	0.33	0.00	<0.001
Uniqueness	1.55	-0.42	-0.82	0.01	0	0.00	<0.001
Free benefits	-0.51	-0.09	-0.61	0.23	0.15	0.00	0.002
Number of firms in a segment	**13**	**19**	**15**	**28**	**75**	**150**	**X**

To allow for easier interpretation the shade coding was used, indicating differences in means across segments, with darker shades of gray representing greater segment averages for respective variables. The table also contains p-values for ANOVA tests, which are all below the 0.05 threshold, showing statistically significant differences between groupings. Considering that all variables were components obtained through factor analysis, the measurement units of the means are standard deviations of respective variables. Hence, with similar approximately symmetrical distributions the means are comparable across all five characteristics.

Additional information useful in more detailed profiling of the segments is given below. The table comprises those characteristics which were left out from the algorithm that yielded the segmentation solution. The rationale for including these variables in the analysis is to ascertain validity and reliability of the cluster classification. A reliable and valid cluster set should consist of segments that show significant variance with regard to other (external) attributes of substantive importance to the studied phenomenon. As before, the statistical significance of differences was investigated with ANOVA tests.

Table 3: Centroids of external variables and p-values for ANOVA tests

External variables	Segments					Total sample	p-values for ANOVA tests
	1	**2**	**3**	**4**	**5**		
Strengthening customer loyalty	0.05	-0.08	0.07	0.17	-0.06	0.00	0.843
Building exit barriers for customers	-0.13	0.00	-0.45	-0.05	0.13	0.00	0.194
Personalized offer	-0.28	-0.06	0.00	0.12	0.02	0.00	0.742
Offering niche products	0.76	-0.04	0.01	0.01	-0.13	0.00	**0.017**
Employment	33.85	26.32	25.36	38.21	36.90	34.39	0.773
Time in years from founding the company to starting operation on the Internet	2.77	1.58	3.13	0.82	2.53	2.17	**0.047**
Years on the Internet	6.69	4.00	7.53	7.36	6.63	6.53	**0.014**
Percentage of firm's revenues from Internet operations	74.04	63.82	55.83	78.57	71.50	70.50	**0.028**
Percentage of loyal customers	50.96	38.82	54.17	47.32	41.83	44.50	**0.041**
Sales profit margin	13.65	13.82	13.67	15.80	16.63	15.57	0.152
Last year, we have increased our revenues faster than competitors	4.33	4.19	5.08	4.42	4.33	4.40	0.286
Last year, we have acquired a larger number of new customers than direct competitors	3.75	4.12	5.08	4.35	4.42	4.37	**0.052**
We have a larger proportion of satisfied customers than competitors	4.18	4.61	5.08	4.60	4.54	0.36	0.210
Number of firms in a cluster	**13**	**19**	**15**	**28**	**75**	**150**	**X**

As can be seen from both tables, the clusters are distinguished by relatively high or low means which suggest strong or weak reliance on given determinants of value proposition or atypical levels of other external variables. In table 2, the shades-of-grey formatting was applied to only a few rows, which was due to only six external variables having shown systematic differences across clusters, as was reported by the significant outcomes of ANOVA tests.

Important insights about segments of firms are also provided by the next two tables which illustrate similarities and differences between clusters regarding types of main Internet activities and major sources of income. The basic outputs of chi-square tests given underneath each table indicate that segments varied systematically on dominant Internet operations and types of revenues.

Table 4: Profiles of Internet operations of surveyed companies by segment membership

		Segments					Total
		1	2	3	4	5	
Which of the following best describes the profile of your company's Internet operations?	Internet storefront	30,8%	89,5%	46,7%	7,1%	73,3%	56,7%
	Providing services to business and public sector	30,8%	10,5%	0,0%	10,7%	13,3%	12,7%
	Providing services to consumers	7,7%	0,0%	26,7%	7,1%	8,0%	8,7%
	News site/portal	30,8%	0,0%	20,0%	75,0%	5,3%	21,3%
	Social network portal	0,0%	0,0%	6,7%	0,0%	0,0%	0,7%
Total		100%	100%	100%	100%	100%	100%

Chi-square test of independence: Pearson Chi-square=94.442; df=16; p<0.001

Table 5: Main sources of revenues from Internet operations of surveyed companies by segment membership

		Segments					Total
		1	2	3	4	5	
What was the main source of revenues of your company from its Internet operations?	sales of tangible products	38,5%	100%	33,3%	14,3%	82,7%	63,3%
	sales of virtual/digital products or services	30,8%	0,0%	20,0%	39,3%	10,7%	17,3%
	advertising proceeds	30,8%	0,0%	46,7%	35,7%	4,0%	16,0%
	intermediation commission	0,0%	0,0%	0,0%	10,7%	2,7%	3,3%
Total		100%	100%	100%	100%	100%	100%

Chi-square test of independence: Pearson Chi-square=70,336; df=12; p<0.001

Summarizing the data contained in the 4 preceding tables it is possible to propose the following characteristics of the clusters:

Segment 1: Suppliers of unique offerings (8.7% of the sample): Providers of **unique products with a narrow range** of complementary items and options. They rarely employ freemium strategy and thus their Internet operations are typically not supported by revenues from advertising. There is very limited reliance on involvement from business partners and customers to enhance the value proposition. The unique products offered by the segment members tend to be addressed to market niches. The segment is also distinguished by the above average percentage of revenues from the Internet (74,04%) and more than half of returning customers (50,96%). Many of the firms belonging in this category started out using traditional distribution channels on average in 2003 and moved onto the Internet only after about 2.77 years. According to the managers' declarations this segment was the least dynamic in terms of attracting new customers, which was shown by a relatively low mean score (3.75) on a 7-point Likert-type scale item intended to measure this characteristic. This segment is the most balanced concerning dominant types of business activities and sources of revenue: it has almost equal proportions (about 30% each) of Internet storefronts, providers of services for business and public sector and news portals. Main streams of revenues originate from sales of tangible products (38.5%), sales of virtual products and services (30.8%) and advertising (30.8%).

Segment 2: Specialized newcomers (12.7%): The lowest score on comprehensiveness suggests that this grouping is focused on providing **specialized offer** (i.e. not comprehensive) of rather conventional products, which is hinted at by a small mean of product uniqueness. The customer benefits provided by the segment members do not entail productivity gains. Here are the youngest companies, with the average founding year in 2006, which expanded online in 1.48 years after their set-up date. Interestingly, this is the group of Internet companies that have the lowest percentage of regular customers, which was estimated by the managers at 38%, on average. The segment 2 companies are mostly Internet storefronts (89.5%) which source their incomes from sales of tangible products (100%).

Segment 3: Comprehensive incumbents (10%): A typical member is a company that relies on a **wide offer** of popular items (the lowest rating on offer uniqueness). The operations are not supported through co-creation by partners and customers and availability of useful free content is the lowest among all segments. Another distinguishing feature is that they are the oldest companies (established on average in 2001) with the longest period from the funding to the moment of starting doing business through Internet channels (3.13 years). The latter seems to at least partially explain the smallest percentage of sales (55.83%) derived from the electronic marketplace. Curiously, the firms in this category recorded on average the highest proportion of loyal customers (54.17%) and the fastest pace of acquiring new patrons, as compared to their direct competitors. The dominant type of company is Internet storefront (46.7%) with providers of consumer services coming in second (26.7%). Chief sources of income are sales of advertising (46.7%) and tangible products (33.3%).

Segment 4: Productivity enhancers (18.7%): The firms in this cluster display the strongest concentration on solutions that can enhance effectiveness and efficiency of their customers. The companies do not shy away from offering free content and involving partners and customers in co-creation. The products on sale are not unique and the offer seems to be rather wide in scope. They were on average set up in 2004 and have the shortest time lag between the year of funding and the year of getting onto the Internet (0.82 year) and, fittingly, the part of the revenues from the Internet is here the greatest (78.57%). This type of operation is rather typical of new portals, which make up 75% of the segment. The most incomes are provided by sales of virtual products and services (39.3%; possibly through subscription) and advertising (35.7%).

Segment 5: Run-of-the-mill retailers (50%): This is the largest cluster that does not reveal many markings of distinctive strategies. Its typical member seems to benefit from some extent of co-creation, has an offer that encompasses multiple options and the incidence of offering free valuable content is higher in only one other cluster. They were on average founded in 2003 and went online after three years. The cluster has the second lowest percent of loyal customers (41.83%) and the second fastest acquisition of new customers if the direct competitors were to serve as a benchmark (average score 4.42 points on the Likert scale). The companies in the segment are also the least likely to service market niches (mean score -0.13). Segment 5 is similar to segment 2 in that it has the largest percentage of virtual stores (73.3%) and derives its revenues mostly from sales of tangible goods (82.7%).

Discussion

The aim of the paper was to identify approaches to value proposition in online companies and their consequences to firm performance. We managed to identify five segments of companies, which profiles were presented in the previous section of the paper.

Possibly most striking was the observation that the identified segments do not show statistically significant differences in financial performance, which was represented here by sales profit margin. This is an important conclusion which contradicts some of the previous findings. According to Min and Wolfinger's research on online stores (2005) „specialists sell less, but set higher profit margins than do generalists". In our study, companies which bear the greatest similarities to the concept of specialist belong to the segment labelled "specialized newcomers". The generalists, on the other hand, are best represented by the cluster of comprehensive incumbents. Both segments rank similarly in terms of profit margin.

Another perspective is offered by the Delta Model (Hax, 2010). Specialized newcomers and comprehensive incumbents bear similarities to the two types of companies distinguished in the Delta Model: providers of the best product and total customer solutions, respectively. The first type of companies concentrates on product superiority while the other focuses on customer relationships. According to Hax, businesses who adopt total customer solutions enjoy higher financial benefits than firms choosing the best product approach. The financial metrics used by Hax as the outcome measures were market value added and market-to-book

value. Again, our research shows that the identified segments have similar levels of profit margin. The discrepancy in findings might be due to dissimilar outcome measures considered in our research or due to different sample structure of companies from the networked economy (including not only pure internet companies).

The findings concerning firm performance can also be set against some popular managerial concepts like the one presented in the book „Differentiate or Die: Survival in Our Era of Killer Competition" (Trout, 2001). The book emphasizes the need of differentiating from competitors in the marketplace. Again, the results of our research do not support this recommendation. Suppliers of unique offerings have in fact the lowest profit margin (13.65%), while probably the least differentiated run-of-the-mill retailers enjoy the highest (16.63%). However, the difference is not statistically significant ($p=0.152$) and so may be unique to the collected sample and not transferable to the general population.

There is also an important divergence in customer loyalty between the specialized newcomers and comprehensive incumbents. The first segment has the lowest percentage of loyal customers (38.82%), the latter – the highest (54.17%); the difference amounts to 15.43 percentage points. According to Gupta and Lehman's formula (2003), raising the customer retention rate from 38.82% to 54.17% will increase the customer lifetime value nearly 4 times (to be exact, in their study accumulated profits discounted at a 10% rate increased by a factor of 3.95 as a result of improved customer retention; customer acquisition cost was not considered). What is more, the business advantages may have been more profound, if online customers of comprehensive incumbents were also buying at offline branches of the companies, however this topic was not addressed in our survey. The highest loyalty enjoyed by comprehensive incumbents may suggest that online customer loyalty is enhanced by a wide range of complementary products or services, longer offline presence and a recognized brand resulting from the longest operation period. These are the dimensions in which comprehensive incumbents achieved the highest scores among all segments. As a qualification to the above conclusions it should be added that the study used a rather simplistic measure of loyalty which operationalized the concept in terms of percentage of returning customers. Thus, the metric encapsulated only one behavioral aspect of loyalty, not tapping into its attitudinal and cognitive dimensions. In consequence, some of the customers reported as loyal may truly have repeated their purchases only due to force of habit or as a result of convenience; they did not need to have any emotional or cognitive attachment to their supplier of products or services.

Another interesting dissimilarity between these two types of companies concerns year of funding and year of starting operations on the Internet. Specialized newcomers were on average established in 2006 and started online operations in 2008. The comprehensive incumbents have had longer histories. On average, they have been in business since 2001 and run online operations since 2004. The profit margin of both company segments are similar; however, as already mentioned, comprehensive incumbents have attained a higher percentage of returning customers and higher level of traditional sales. Similar pattern can be found in other segments: the two groups of companies with the second and third highest percent of loyal customers (i.e. suppliers of unique offerings and productivity enhancers, respectively)

had time on the Internet longer than the two clusters with the smallest loyalty ratio. This may suggest that the dynamics of the Polish online market reward long term presence on the Internet with more loyal customers.

The last segment, run-of-the-mill retailers, can be perceived as largely terra incognita. The companies here lack distinguishing identity. Their mean scores are middling in comparison to other segments across almost all dimensions. The only notable exception is that they rely the least on enhancing customer efficiency. According to many management and marketing concepts companies offering undifferentiated value proposition should suffer from low financial and otherwise performance. Porter (1998) claims that companies which are not differentiators or low cost providers will "get stuck in the middle". There are some exceptions from this rule, but one could expect to find higher profit margins in segments with more focused strategies, which apparently was not the case here. In more recent 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. Examples of such companies are Amazon.com and Dell. Porter's amendment to his earlier theory, although interesting and intellectually stimulating, cannot explain why undifferentiated run-of-the-mill firms were not characterized by comparatively low sales margins. This group of retailers amounts to 50% of researched companies. Due to their large number and a lack of distinguishing identity, they should not be treated as adopters of unique breakthrough technologies or disruptive managerial solutions. Hence, the absence of convincing explanation of the run-of-the-mills' value creation mechanisms warrants further research on the segment.

Limitations and directions for further research

The present study has several important limitations. Firstly, among online companies, the sample included Internet stores, e-service providers and news websites. Hence, the sample was characterized by profound heterogeneities in terms of employed business models. On the other hand, previous research on value proposition quoted earlier in the article was also conducted on similarly diversified groups of companies. Considering a similar approach to sampling by other researchers and the general objective of the study, which sought to uncover rather universal patterns that are independent of industry idiosyncrasies, that feature of the sample probably did not compromise the presented results.

Second limitation stems from the fact that the sample comes from a single country. Polish online market comprises of sectors typically displaying characteristics of perfect competition (e.g. several hundred online bookstores) or oligopoly (e.g. portals). The consumer's motivation to use Internet is time saving, convenience, and lowest price seeking (Żbikowski 2012). Hence, the market is highly competitive. A few global players tried to enter the Polish market: some of them resigned (e.g. Yahoo!, AOL), while others got satisfied with a low market share (e.g. eBay). In consequence, not all of the identified patterns may repeat in other national environments with different market structures and dynamics.

Somewhat problematic was that a single large segment accounted for 50% of the sample. One explanation could be that those companies were indeed undifferentiated, average market players. But it could also be argued that the questionnaire employed in the survey lacked

scales to serve as more complete and subtle metrics that could better distinguish between value proposals. For example, the study did not include measures related to capital structure, human resources and many aspects of innovation policies and operations. Also, it would definitely be useful to include other financial metrics, such as ROA and ROE. However this problem could not have been easily remedied, as it was impossible to include more items on the questionnaire so that the average interview time did not exceed the 20 minutes recommended for the CATI method. In addition, given the form of contact, questioning respondents about other financial metrics was likely not to be successful (the authors' own experience strongly implies that in Poland the highest item response rates are to be achieved for sales profitability ratio; other performance metrics are typically much more problematic in this respect).

As was already mentioned, the limitations of the study correspond with the constraints in many other research projects in this area. The existence of a large segment of companies without any clear identity may suggest the need for a closer investigation. That may be conducted with one of the qualitative methods (e.g. case study research) to better control for the unique conditions of each company. Also, a more refined questionnaire design could be considered, where the variables that apparently did not differentiated meaningfully between companies are replaced by new metrics, capturing other aspects of value propositions. In addition, it would be interesting to see results from a similar study focused on a single type of companies, for instance encompassing only online stores.

Appendix

Table: Rotated component matrix from principal components analysis of value drivers in Polish Internet companies

(for the sake of clarity, only factor loadings greater than 0.4 were displayed)

	Component								
	1	2	3	4	5	6	7	8	9
Only a few firms offer solutions similar to ours					,696				
In the markets we operate in we are recognized as pioneers					,780				
For the most part, customers choose our solutions because of their innovativeness					,530				
Resigning from our offer and changing to our competitors' brings about high switching costs to our customers, such as extra time, effort or financial expenses						,892			
It happens that customers are not fully satisfied with our offer but they stay with us due to switching costs						,874			
We provide our customers with personalized solutions							,854		

Most of our customers use our personalized solutions							,707		
We consider it important to maintain for as long as possible even those customers who are less profitable									,813
Regular customers are rewarded through loyalty programs and other measures				,663					
We have implemented specific mechanisms for retaining customers		,414		,681					
Our key partners have strong impact on uniqueness of our offer for customers	,792								
An important criterion for selecting our key business partners is enhancing our capacity for retaining customers	,625								
Our key partners have strong influence on how comprehensive our offer is	,616								
Our customers are choosing our offer for the attractiveness of the available complementary products				,685					
Customers try to use our solutions together to benefit from synergy effects				,668					
Our solutions allow customers to take advantage of savings in time and effort		,663							
Because of our solutions customers can solve their problems more easily		,722							
Internet grants customers a more efficient access and use of our products than traditional channels		,742							
Our partners make significant contribution to savings in time and effort afforded customers by our offer	,580								
Our offer is for free: we earn our money from advertising revenues			,909						
Our Internet site has only informational features without transactional capabilities			,891						
Our dominant strategy is “freemium”: the basic offer is for free but customer have to pay for premium features			,707						
We offer a wide selection of items in our chosen product category								,827	
We offer popular products								,750	
We offer niche products									,653

We offer products from several related categories								,516	
The final value for the customer is strongly affected by actions, contributions and/or transactions by other customers	,680								

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Labels corresponding to component numbers in the table:

1. Co-creation of value through cooperation with business partners and customers
2. Providing customers with productivity benefits (e.g. time savings)
3. Providing free content or services to customers (e.g. offering articles free of charge and sourcing revenues from advertisements)
4. Employing measures to enhance customer loyalty
5. Offering unique products (i.e. products that serve common needs but in a unique manner)
6. Building exit barriers for customers (i.e. inducing switching costs)
7. Proposing personalization options
8. Offering a comprehensive range of products
9. Offering niche products (i.e. products that serve the needs of a small fraction of the market)

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