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Features of food industry on the Internet: A case of Lithuania

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Abstract:

The objective of this paper is to identify and present the current situation of Lithuanian food industry sector in terms of online presence, use of e-marketing tools and internet strategy implementation, paying attention to food manufacturers, marketers, and food delivery (including fast food and restaurants). The following methods as comparative analysis of the scientific literature, secondary data analysis, data comparison and logical grouping, graphical representation of data, and descriptive statistics employed. For empirical study, it was decided to investigate online activities of the food industry sector of Lithuania using structured observation technique. Following assumptions were formed after study: companies of food industry are more oriented to Russia than to European market, and Baltic market is really important for this sector. It is necessary to investigate food industry sector activities and strategies in other regions, and to develop model of Internet strategy forming for food industry by online presence decisions. The originality of this work lies in studying some aspects of strategic and tactical decisions related to online presence of food industry companies of Lithuania.

Keywords: e-commerce; e-marketplace; Lithuania; internet usage; food industry; web marketing
JEL codes: L66, M15, M31, O33

1. INTRODUCTION

Development of information and communication technologies (ICT) causes changes in processes of management, commercial and marketing activities of organization as well as changes in other areas such as consumer behavior patterns, learning peculiarities etc. The need of constant evaluation of markets, understanding of consumer, and knowing new technical solutions are vital for organizations nowadays. So as proposes Gajowiak (2016), it becomes necessary to use the resources (particularly the intangible ones) intelligently, and aim at increasing pro-innovation behavior, because role of intangible values continues to rise, as the existence of modern organizations is conditioned by innovations as well as by gaining

the trust of customers, by creating brand and by effectively responding to changing reality. The specific aspects of e-strategies implementation, decisions concerning online presence, choice of e-marketing solutions, understanding consumer behavior, presupposes actuality of the analysis of current situation in all fields of business activities. Food industry is not an exception in this case, and new insights in order to understand phenomenon of success are necessary. The food and beverages industry is one of the largest and most developed industries in the Lithuania. Compared with European Union countries, Lithuania is the one with the strongest orientation to the food and beverages manufacturing. The sector's contribution to the country's GDP excesses EU-27 average more than 2 times. Food industry has a good development prospects and export activities contributes to the sector's growth. This becomes more important in terms of the decreasing inside market related to declining population in the country, and e-commerce and reaching international markets via internet become one of perspectives.

The goal of the article is to identify and present the current situation of Lithuanian food industry sector in terms of online presence and use of web marketing tools paying attention to food manufacturers, marketers, and food delivery (including fast food and restaurants).

This study allows to evaluate level of usage of main elements (strategic decisions for web marketing tools, online presence, etc.) and to identify trends for further research in order to increase efficiency of food industry sector performance in the internet (scientific and practical perspective). The e-commerce market peculiarities of Lithuania analyzed and shortly presented in the article as well, in order to present whole picture.

The following methods as comparative analysis of the scientific literature, secondary data analysis, data comparison and logical grouping, graphical representation of data, observation, and descriptive statistics employed.

2. PREVIOUS RESEARCH

Innovation is one of the main motives and factors not only for economies, but also for businesses, and there is a great variety of definitions referring to innovative activity (Kosala, 2015). So, ICT can be treated as business innovations as well. ICT development and changes caused by development of ICT is a complex phenomenon, which consists of many different research areas such as ICT in companies' performance, ICT security, e-business development and solutions, e-commerce, e-logistic, web marketing, e-learning and many more. In this section overview of previous studies in a field of web marketing and e-commerce will be presented via such topic analysis as: website classification, website quality assessment, internet marketing studies and its use peculiarities in different sectors. In order to reach a goal, it is vital to analyze internet strategies and implementation tools, which will be analyzed and presented within next section.

The use of e-commerce activities in the food industry are widely discussed by scientists and practitioners (Annunziata & Vecchio, 2013; Carlucci, De

Gennaro, Roselli, & Seccia, 2014; Yang & Shang, 2015; Papaioannou, Georgiadis, Moshidis, & Manitsaris, 2015, Briz et al. 2016; Fang et al. 2016; Verheyen, 2016). The scientific research of the development strategy of green food e-commerce in Heilongjiang Province was made by Qi-Zhao Yang, Jie (2015). Eugenia Papaioannou et al. (2015) analyzed issues such as e-commerce potentials in the fast food industries, the acceptance of e-commerce alternatives by the consumers and the collaboration between businesses and customers. Domenico Carlucci et al. (2014) in order to target the goal to provide useful insights for small and medium-sized enterprises (SMEs) interested in online selling of extra virgin oil, studied the relationship between the price of extra virgin olive oil and its main quality attributes, in the specific case of business-to-consumers e-commerce channel. A. Annunziata and R. Vecchio (2013) analyzed the websites of Italian companies engaged in the production of typical and traditional foods in order to investigate web marketing strategies of food producers in Italy. The research has shown that these firms invest very little in web marketing and focusing their efforts on the internet only as a secondary promotion tool, while web based direct selling is confined to market niches.

E-commerce activities are closely related to the broader and more general fields of study, which are important to analyze in order to perform research methodology. A lot of researchers paid attention to the quality assessment of website (Aladwani, 2006; Collier & Bienstock, 2015; Cuddihy & Spyridakis, 2012; Dholakia & Zhao, 2009; Guseva, 2010; Hasan & Abuelrub, 2011; Lee & Kozar, 2012; Rocha, 2012; Saremi, Abedin, & Kermani, 2008; Shejul & Padmavathi, 2015; Subramanian, Gunasekaran, & Yu, 2014; Wang, Yeh, & Yen, 2015; Zhang & Dran, 2000), customer behavior (Alzola & Robaina, 2010; Bressolles & Durrieu, 2010; Dennis, Merrilees, Jayawardhena, & Wright, 2009; Hamid & McGrath, 2015; Hodkinson, Kiel, & McColl-Kennedy, 2000; Yue & Chaturvedi, 2000; Maditinos & Theodoridis, 2010; Rahim, 2014; Su, Li, Song, & Chen, 2008), marketing communication tools such as: research in the area of web advertising efficiency (Moore, Stammerjohan, & Coulter, 2005; Richardson, Ganz, & Vallone, 2014), social media usage in different communication models (Agnihotri, Dingus, Hu, & Krush, 2015; Chan & Guillet, 2011; E Constantinides, 2015; de Vries, Gensler, & Leeflang, 2012; Jarvinen, Tollinen, Karjaluoti, & Jayawardhena, 2012; Kärkkäinen, Jussila, & Väisänen, 2010; Laroche, Habibi, & Richard, 2013; Michaelidou, 2011; Pabedinskaitė & Davidavičius, 2012; Riemer & Richter, 2010). It is important that social media usage depends not only on the chosen communication model, but also on the industry specifics (Barnes, 2010; Buhalis & Mamalakis, 2015; Panagiotopoulos & Shan, 2015; Senadheera, Warren, & Leitch, 2011). Barnes and Mattson (2010) analyzed the e-behavior of Fortune 500 companies, focused only on a limited set of industry categories, i.e., computer, food, special retail, commercial banks, semi-conductors, motor vehicle, insurance and IT (Levina & Vilnai-Yavetz, 2013). The specifics of navigation and quality of e-commerce perception of Lithuanian consumers were presented

by Davidavičienė, Tolvaisas (2011), Davidavičienė, Sabaitytė, Davidavičius (2012), Davidavičienė, Paliulis, Sabaitytė (2012).

Taking in mind the rapid e-marketplace changes and growing business needs, as well as opportunities and appearance of new tools, constant exploring virtual markets (food industry not exception) peculiarities, is necessary. Deeper understanding of sectors development and progress in use of e-tolls is actual for scientists as well as for practitioners. Further will be analyzed internet strategies and online presence aspects in order to form research methodology.

3. INTERNET STRATEGIES CLASSIFICATION

The performance of organizations depend not only on changes caused by ICT development and new tools which are implemented, but it largely depends on a type of Internet strategy which organizations choose taking in alignment with overall strategy of organization. Many scientists have investigated the Internet strategies typology, classification, and use in different sectors (Spiller & Lohse 1997; Amit & Zott 2001; de Kare-Silver 2001; Biyalogorsky & Naik 2003; Doherty & Ellis Chadwick 2003; Weltevreden et al. 2005). In this article, further will be employed classification proposed by Weltevreden et al. 2005 and adopted to nowadays situation. It is one of the most extensive Internet strategy classification, which relays on three types of companies activities intensity relying on website type (Weltevreden, Atzema, & Boschma, 2005):

1. No website: *pre internet passive* (no activities planned), *pre internet proactive* (URL and activities planned), *developing* (URL and activities developing);
2. No online sales: *billboard (*use the Internet to make potential customers aware of their existence, no additional services), *brochure* (limited product information), *catalogue, service (*provide additional services to enhance the relationship with their customers (e.g., help desk services, community building services, online ordering without online transaction, etc.));
3. Online sales: *export*, *mirror* (online sales as additional activity of company), *synergy* (both traditional and online channels are equally important), *anti-mirror* (most part of business online), *virtual (*business online).

In order to make link between Internet strategy and changing customer needs, which enhance overall interaction via website the online presence elements should be analyzed and fit to the Weltevreden et al. (2005) proposed classification.

4. ONLINE PRESENCE

Online presence is direct reflection of organization goals. Different features of the website leads to the website type alternatives and internet strategy implementation. Hence, Efthymios Constantinides (2002) emphasizes the four main managerial ingredients of web marketing: scope, site, synergy, system. The 4S marketing mix firstly aimed as an educational tool, but very soon has been proved as a tool for designing website and improving the existing one, either elaborating

online presence strategy. According to the E. Constantinides (2002) one of the most crucial ingredients of web marketing is website, which strategic role could be described as main generic types: informational, educational, relational, promotional and transactional. However, David Chaffey and Fiona Ellis-Chadwick (2012) identified five types of online presence: transactional e-commerce sites, service-oriented relationship building or lead-generation website, brand-building site, portal or media site, social network or community site. Classification is based on the differences of each online presence type features (see Table 1).

Table 1. Main features of online presence solutions

Internet strategy Group	Internet strategy	Online presence type	Main features
no website	*pre internet passive*	**No website**	–
	pre internet proactive		
	developing		
no online sales	*billboard & brochure*	**Brand-building site.**	Provides experience to support the brand. Typically no possibility to purchase online. Merchandise may be. Experience is developed by content marketing and social outposts.
	catalogue		
–	*social network site*	**Social network or community site**	Enabling community interactions between different customers by posting comments, sending messages, rating and tagging content etc. May be used for public relations, brand building, opinion researches.
online sales	*export*	**Transactional e-commerce sites.**	Possibility to purchase online. May provide information for offline customers
	mirror, synergy, anti-mirror,		
	virtual		

Source: own study based on Chaffey, Ellis - Chadwick (2012), Weltevreden et al. (2005), Constantinides (2002).

A. Annunziata and R. Vecchio (2013) emphasizes that the website is the key element in developing web marketing strategy, as it is a relationship building instrument between the consumers and enterprise existing in the market. However D. Chaffey and F. Ellis – Chadwick (2012) highlight that due to provided classification it is not suitable clearly categorize websites, because many of it may have blended features. We suggest that for this research first three types of presence (transactional e-commerce sites, service-oriented relationship building or lead-generation website, brand-building site) have to be considered as types of website owned by organization and social network or community site as the microsite or activity in third party's networks.

The theoretical background for further research set by identifying online presence types, which can be described by website types and its features and belonging to the internet strategy. In next section research methodology will be presented.

5. MATERIAL AND METHODS

Two research methods were employed for this study: 1) secondary data analysis, and 2) observation of food industry companies' activities in the Internet.

Overview of internet usage, created GDP, average spends per shopper and amount of shoppers in electronic environment in general were evaluated in order to present market situation. In order to evaluate food industry sector performance in the internet and to draw the general picture of this market in Lithuania the structured observation method was chosen for empirical research. Sample of 146 business entities was taken with confidence level 95 and confidence interval 8.

Analysis of industry representatives focusing on different e-solutions in B2B and B2C communication were performed according the classification preformed and presented in previous section (table 1). It was agreed on 3 industry types for observation, such types were: food manufacturers (meet products, fish products, fruits and vegetables, oil, milk products, grain, bakery products, other), food delivery (e.g. restaurants, fast food, etc.), food marketers (hole sellers, retailers, supermarkets). Indicators representing food industry sector: activity in the internet (having website and its type); use of languages (companies market orientation), involvement of web marketing tools (having separate websites for different product brands, presence in social networks).

6. RESULTS AND DISCUSSION

According statistics there were 19% of companies that sold goods or services via internet in year 2014. Sales via e-networks compared to sales overall were 9 % (Official statistics portal, 2016). In year 2014 in Lithuania 650 thousand people shopped online, which is about 26% of the population. E-commerce share of eGDP in Lithuania is 1.13%. In comparison eGDP share in Britain' which is leading by this indicator in EU is 5.74%, in Europe 2,5%. Lithuania is only in 22-nd place in ranking by eGDP share in Europe, and 6-th place from 8 countries in Northern Europe region, while the share of e-commerce GDP in Denmark 3,84 %, Estonia - 0,77%.

The turnover of e-commerce in Lithuania was 410 million € which is much less in comparison to greatest turnover in Northern Europe which is at Denmark (9,9 billions €; first place), the lowest turnover is in Estonia - 150 million € (last place). Lithuania is 5-th in ranking of Northern Europe in turnover. Average spends for one shopper in Lithuania were 630 €, meanwhile greatest average spend per shopper in Denmark is 2721€, lowest in Estonia – 283 €. Despite Lithuania is in a group of Northern countries – the results are low in comparison with other.

In summary, situation in Lithuania's internet infrastructure, penetration and usage are at the level close to European average, and some aspects are even higher, which with fact that European markets are open for Lithuanian business let to conclude that there are all the preconditions to develop e-commerce to the level close to those averages of Europe.

As one of the possible reasons of low turnover and eGDP considered the Lithuanian e-commerce, which is highly self-oriented that is to say the foreign markets are poorly exploited and employed. To test this assumption the research of foreign languages usage in Lithuanian food industry business websites in general and e-commerce sites was completed.

During the research it was found that 64.2% companies had websites, 31.1% had no website and website did not loaded 4.7% of all analyzed companies. Further analysis revealed that in different sectors of food industry tendencies of using web tools are different (see fig.1).

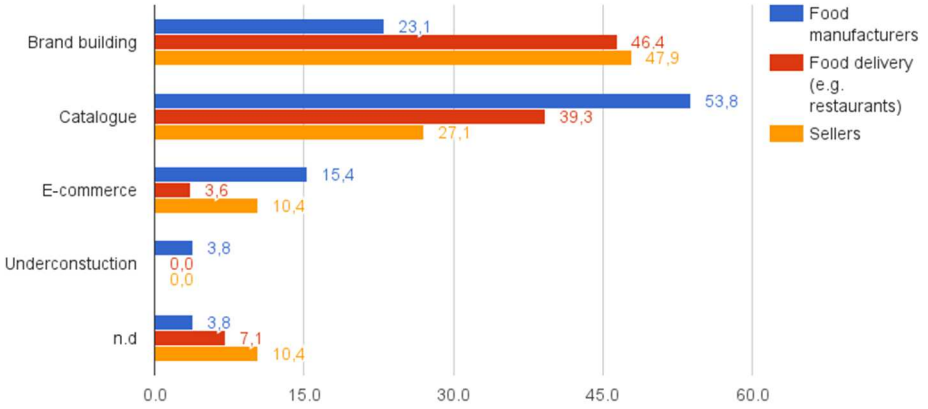

Figure 1. Online presence in Lithuania food industry
Source: compiled by authors.

Observation reveals that food manufacturers keen to have catalogues and present all range of products 53.8%, meanwhile food delivery and sellers presenting themselves via brand building sites. Unfortunately, all groups of food industry show quite low activity in e-commerce and do not choose online strategies that is why further type of online strategies not discussed. Under construction graph mean, that companies use passive or development strategy. Unfortunately, it was some websites which specific was not identified: some of them did not loaded (most of them sellers section – 10,4%); others were hacked at a moment of observation.

Information in other languages percent (see fig.2) in different sectors of this industry (analyzed food manufacturers, food delivery (restaurants) and sellers (marketers) varies.

Food manufacturers are most oriented to foreign speaking inhabitants or to export markets because most of them have one or more foreign languages in website. A lot of food delivery companies (restaurants, fast food, pizzerias) are offering information in local language. Chart (fig. 2) reveal that German and Polish language is used less than Russian (taking in mind ethnical structure of population of Lithuania (here lives approximately the same percentage of Russians and Polish) the assumption that these companies are more oriented to Russia than to

European markets could be formed. It should be noticed that from other languages group, which as revealed important to food manufacturer and sellers, such languages as Latvian and Estonian were implemented. This show that common Baltic market is important for this sector as well.

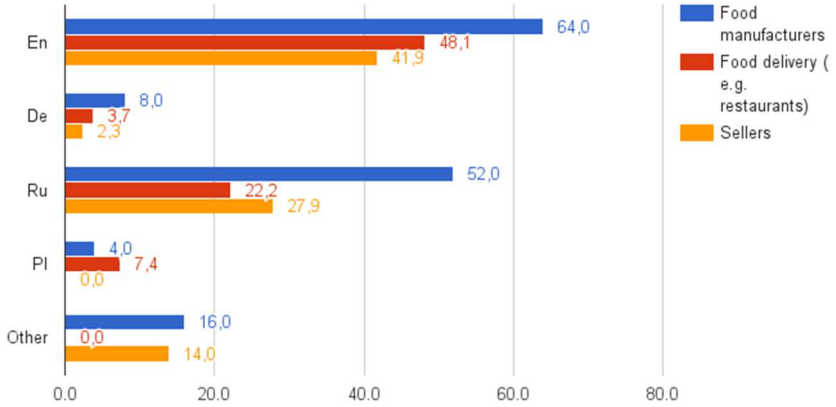

Figure 2. Use of languages in Lithuania food industry websites
Source: compiled by authors.

Involvement of web marketing tools like having separate websites for different product brands is really low (from all researched companies just four companies (2,7%) exploited this web marketing solution). Presence in social networks results are much better. From all companies 43% had page in social network Facebook (82.5% from this range has website as well), but these solutions are oriented to local B2C oriented web marketing communication.

7. CONCLUSIONS

Previous studies in a field of e-marketplace, Internet strategies and web tools were analyzed, and this was the theoretical background for the research of food industry sector of Lithuania. The Internet strategies classified and they relations with online presence categories found. The analysis the Lithuanian electronic market were performed: analysis of internet usage, e-commerce turnover, and share of e-commerce GDP, average spent per consumer and market size was taken in consideration. Important to mention that level of Lithuanian internet usage is close to European countries averages. Despite that e-commerce GDP is quite low, so additional measures for encouraging to exploit more e-commerce possibilities should be taken. Low turnover of e-commerce activities in Lithuania might be related to the fact that it is not fully exploit the potential of other markets by Lithuanian e-commerce participants. This statement was deeper analyzed in food industry sector of Lithuania.

Analysis of the usage of languages in food industry sectors research revealed that websites are more focused on inner markets of the country. Two assumptions

were formed and must be studied deeper: companies of food industry are more oriented to Russia than to European market, and Baltic market is really important for this sector. So, taking in mind geopolitical situation (Russia-Ukraine crisis) food industry companies should be more active targeting Asia and America markets in order to split the risk and expand activities. For this the general websites oriented to business to business cooperation should be well performed or orientation to business to consumer could be exploited as analog strategy via e-commerce solutions (but in this case food industry companies should explore consumer behavior and needs in target markets in order to develop proper web marketing plan.

Further research should be focused on food industry activities on the Internet for investigating peculiarities of web marketing solutions for international markets, as well as studies of peculiarities of strategic decisions, and online presence models formation for this sector.

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