Analysis of the Current Support of E-marketing Activities in Selected Enterprises of the Wine Sector in Slovakia

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Abstract

In the digital era, implementing an effective marketing strategy requires a more comprehensive view of the marketing strategy than in the past. The concepts of older approaches are already ineffective today, but we consider it important to mention them. Organizations focus on improving production, achieving low cost and mass distribution. The product concept is based on the conviction of consumers who prefer products with the highest quality or innovative characteristics. Managers focus on producing quality products and subsequently improving them. The disadvantage is the disproportionate focus on the product (marketing near-sightedness) as on consumption. The sales concept is characterized by a gradual increase in competition and market saturation. With this characteristic, managers are using a more aggressive fixed sales strategy, paying more attention to sales and building improved sales channels. The most modern approach is the holistic marketing concept that came about with the advent of the digital era. It is a dynamic concept conditional on electronic connectivity and interactivity between the agricultural company, its customers and collaborators. It integrates value exploration, building and delivering activities for mutually satisfying relationships and shared prosperity among stakeholders.

This paper summarizes the most important results of the questionnaire survey of selected companies carried out under the title: Analysis of the current support of e-marketing activities in selected enterprises of the wine sector in Slovakia. The results of the questionnaire survey are evaluated in the text based on submitted scientific hypotheses.

Keywords

Marketing, agricultural companies, ICT, marketing information system (MIS), marketing strategy, agribusiness.

Introduction

Today, world wine producers are facing difficult sales problems due to a lack of market space. Structural changes in the wine market, the discovery of multinational retail chains, the growing interest of customers in cheap but quality wines have brought new opportunities for "new world" wineries to the detriment of traditional European winemakers. Since the early 1980s, new markets have been opened in China, Japan, and South Korea, which are still helping hands (growing and selling grapes) for traditional 'old world' countries. The Slovak position of wine growing and production is of marginal importance for the national economy. In many cases, wine production is linked to local history, traditions, and lifestyle and contributes significantly to rural development. The competitiveness of Slovak wines focuses mainly on the production of high-quality categories with an emphasis on improving feedstock in the processing process. Slovak winemaking is not able to compete with large producers from Southern Europe (Italy, Spain) for its production size or yield per hectare, but it has exceptional potential in terms of originality and uniqueness of wines. To increase the competitiveness of farms, regions or the whole country, it is mainly marketing and innovation. A well-adapted and effective marketing strategy in today's strong competitive environment provides the agricultural company with an understanding of its production capabilities and the ability

to influence consumer behaviour on the market. The effective implementation of information technology and digital tools enables the benefits of the digital era to create a strong brand. The number of enterprises using information communication technologies is growing rapidly. New digital tools and innovations have changed the way we do business. Businesses can benefit from ICT in many areas, such as marketing, networking, and market engagement. However, the use of modern technologies to communicate with customers in the agricultural industry is relatively less than in other sectors.

According to Raacke et al. (2008) over time, marketing has evolved in response to advances in global culture, technology, and entrepreneurship, continually adapting its practices to the trends of each era, and each adaptation has been built on past developments. When examining the development, we can classify the main revolution in marketing practice into generalized thought systems or different marketing philosophies. The main philosophies are expressed in Table 1.

	1.0 Marketing	2.0 Marketing	3.0 Marketing
Goal	Sell products	Retain customers	Make the world a better place
Enabling forces	Industrial revolution	Information technologies	The next generation of social technologies
How companies see the market	Mass buyers with normal physical needs	Smart consumers	Society as a whole with mind, heart and spirit
Key market concept	Product development	Differentiation	Values
Marketing direction in society	Product specification	Business and product placement	Corporate mission, vision and spirit
Value proposal	Functional	Functional and emotional	Functional, emotional and spiritual

Source: Business News Publishing (2014)

Table 1: Dependence of marketing in companies and marketing information system.

Currently, information technology has an important role to play. We observe the emergence of a global information infrastructure that acquires and processes large amounts of data and information (Tvrdíková, 2016). The revolution of information technology gave the possibility to create a new sphere in the economy and transformed the traditional marketing

environment. Different networks and memberships are at the forefront, with a significant impact on social functions (Harrel et al., 2008).

Today, information and communication technologies are an increasingly important factor in supporting and achieving business goals (Hosťovecký et al., 2015). Gradual evolution has shown that ICT helps create value to support profitable business processes (Kahraman et al., 2016). ICT is generally defined as a set of technological tools and means used to create, distribute, store and manage information. According to Schembri et al. (2016); Vivek et al., (2012); Machado et al., (2016); Šilerová et al., (2008) several important attributes characterize the role of ICT in modern marketing and development. ICT offers instant connectivity, improving the efficiency, accuracy, and transparency of voice, data and visual information. It is an effective substitute for other means of communication and transactions. It cuts costs and helps increase the productivity (Balashova et al., 2015).

Data and information are generated quickly in all farm departments and their volumes are truly enormous. Furthermore, there is almost no data integration in the agri-food sector. Data and information are stored in the modules of the individual departments and are used mainly for further processing exclusively in their departments of origin, where they are also stored (Schiederjans et al., 2013). Strauss et al., (2013) confirms, that marketing analytics solutions are currently expanding in organizations to benefit from "big data" solutions, but Chen et al., (2007), says, that most implementations have not yet benefited from integrated big data marketing solutions. Based on different usage perspectives Weistein et al., (2013); Šimek et al., (2008) evaluate the big data system only for businesses that are set up to gain knowledge to support business decisions. Data mining is the process of gathering useful information to analyse customer behaviour to improve service quality and profitability. Its process is combined using statistical methods, mathematics, machine learning, and scientific methodologies (Westwood, 2011). Several basic techniques that are used to describe customer behaviour are classification, segmentation, association and prediction (Festa et al., 2016). Data mining techniques focus on obtaining high-level knowledge from basic data. There are several data mining algorithms, each with its advantages (Freimer et al., 2012). For the specific use of mining

data Giovannoni et al. (2018) classifies:

- Market segmentation - identify common characteristics of customers who buy the same product from a company,
- Customers - predicting which customers are likely to leave the company and visit a competitor,
- Fraud detection: identifies which transactions are most likely fraudulent,
- Direct marketing - determines which prospects should be included in the mailing list to get the highest response rate,
- Interactive Marketing - predicts what everyone who accesses a website is most likely to see,
- Market analysis - understanding what products or services are purchased together,
- Trend analysis: reveal the difference between a typical customer this month and the last.

The marketing activities of a modern enterprise are closely related to information coming from the internal and external environment, which is the main source of information about marketing databases. The environment in which businesses operate contains a wealth of valuable information. Most often, this information does not end up being held by marketing specialists promptly, which makes decisions taken more risk and uncertain (Kaplan et al., 2010); (Vaněk et al., 2011).

A marketing information system (MIS) is defined as a set of procedures and methods for the regular planning, collection, analysis and presentation of information for use in making marketing decisions (Lamb et al., 2011). Many companies store electronic marketing data in databases and data warehouses. These data warehouses enable merchants to obtain valuable, appropriate and customized information at any time. Marketing specialists can receive database information on websites and email on multiple devices (Strauss et al., 2013).

Solutions to marketing and MIS problems that are available in the literature, e.g. Tvrdíková (2016) defines them as very complex and systemic, but practically unusable for small and medium-sized enterprises. A survey of the organizational structures of SMEs enterprises found that marketing is often delegated by only one employee. It is organizationally located at the sales department or CEO department and usually has many other functions. Harrel (2008) sees a possible solution for the nomination of a multi-profession team that will provide motivation and evaluation of the results of gathering external and internal information for MIS by all agricultural company employees, solving problems related to authorizing access to information stored in benchmarking the performance of the agricultural company with its main competitors and proposing measures to update the strategy.

Materials and methods

The paper is the output of internal specific research conducted at the Department of Informatics, Faculty of Economics and Management, SPU in Nitra. The following hypotheses were defined for the processed marketing research:

H1: The use of ICT solutions across marketing areas is statistically significantly related to the organization's growing revenue.

H2: The use of ICT solutions across marketing areas is statistically significant to productivity.

A survey of enterprises was made up of 21 agri-sector enterprises focused on wine producing sector in Slovakia. Several scientific methods have been used in the survey. The main method was the analysis and comparison, which, based on the questionnaire survey, identified the current situation in the marketing of wine companies in Slovakia. We used the synthesis method to process the knowledge from the literature. We have applied the induction method to formulate conclusions based on the evaluation of the survey. Using the deduction method, we have applied the lessons learned from the literature to draw conclusions. To find the data for our analysis, we chose a questionnaire survey, which was distributed to individual entities. Questionnaires were collected and electronically processed in MS Excel, where we processed most tables and charts of the fourth and fifth chapters. Statistical calculations were made by SPSS Statistics. The questionnaire, through its results, was textured to the reliability of its construct. Analysis of selected parts of the survey was performed in the SPSS IMB statistical software. Reliability was tested by Cronbach's Alpha. Cronbach's Alpha is one of the most frequently used indexes for investigating the reliability of a measuring tool (questionnaire). Based on the structure of the questionnaire and the results obtained:

$\alpha = (k/(k\text{-}1))* [1 - \Sigma (s2i)/ s2sum]$, where

k – number of items (number of questions, quality criteria)

s2i – variance for the items

s2sum – variance for the sum of items

Several statistical methods have been used for statistical evaluation. Verification of dependencies between the examined characters was performed using the Chi-quadrate test (χ^2), respectively (χ^2) - square contingency. For statistical tests where the Chi-quadrate independence test could not be used because the cell count assumption in the contingency table was not followed, Fisher's exact test was used. Fisher's exact test is based on a contingency table and verifies the null hypothesis of the equality of two shares, i.e. the independence of the two binary variables. This test is based on the assumption that all marginal frequencies (row totals / columns) in the pivot table are fixed. This assumption is rarely met. Typically, only line counts or only total abundance are fixed.

The hypotheses were tested using standard statistical methods, testing of the hypotheses was through the Kruskal-Wallis test, which is an extension of the Mann-Whitney U test for the use of more than two variables. Analyses of the attribute group indicate that the reliability of the data obtained from the main survey is sufficient (the internal consistency of the scale is considered appropriate, even if the coefficient is greater than 0.7). The values are given in Table 2.

Scope of reliability analysis	Number of examined items	The value of Cronbach's alpha
All variable items	21	0.801
Variables to Hypothesis H1	12	0.785
Variables to Hypothesis H2	9	0.791

Source: own research and processing

Table 2: Overview of the introduction and use of management methods and techniques.

Results and discussion

The survey was focused on marketing in individual companies, attention was paid especially to the use of special software or outsourced services in the provision of marketing information system, for this area - 11 businesses. Some of them use sales or sales departments to manage marketing activities or combine e.g. their marketing department and external specialized agricultural company. In this context, it is worth noting that only 4 companies declare that marketing is done intuitively; without a specific organizational chart and specific marketing plans, which is certainly a sign of the development of marketing management.

The comparison of the way of providing marketing and marketing information systems in individual companies is certainly worth closer attention. Table 3 shows several basic trends:

- In companies that have their marketing department, the marketing information system is also managed by internal resources (regardless of whether it was developed by its own or external staff),
- Where marketing is managed intuitively, usually no marketing information system is implemented, as is the case in companies where marketing activities fall under the sales or sales department,
- Enterprises in which only one employee is engaged in marketing, because here (as with companies with their marketing department), the marketing information system is managed by internal resources, probably the only employee,
- Although 6 companies said they did not use any marketing information system support, even 8 companies had already answered a specific application/software question,

Implementation of marketing	Licensed software	Licensed software (external processing)	custom software	MIS	Hosted applications
Internal marketing department	4	3	3	1	2
One employee	5	-	1	2	2
Intuitively	1	-	-	-	-
External firm	2	3	2	-	1
Intuitively	1	-	-	-	-
External firm	2	3	2	-	1

Source: own research and processing

Table 3: Dependence of marketing in companies and marketing information system.

- It is also somewhat surprising to find that the well-known SAP information system is used by only 3 companies for their activities. Most often companies choose their software solutions (the most popular are solutions based on CRM, respectively database systems) and database systems in general.

If companies use external specialized companies to manage marketing activities, they are most often advertising - 7 companies and marketing research - 8 companies, one agricultural company uses the services of several external specialists in different areas of marketing. Questions about the use and impact of ICT solutions within each marketing area:

Does your organization allow you to order and book services online through a website or other computer networks?

Does your organization use a CRM system that is based on a specific customer relationship management software solution?

Do you use IT solutions to lure suppliers for pricing or submission?

Does your organization allow you to order and book services online through a website or other computer networks?

Hypothesis 1 was tested to find out whether there is a statistically significant dependence between the occurrence of ICT solutions supporting individual marketing areas and increasing the organization's revenues. Thus, the relationship between the occurrence of ICT solutions within each marketing area and the overall impact of ICT solutions on profit growth was tested. Respondents had to answer whether or not they have implemented ICT solutions within individual areas of marketing. It was, therefore, a variable that took values of 1 - they do not have ICT solutions implemented, 2 - they have the ICT solutions implemented. Respondents also had to answer the question: what impact do they think, ICT solutions to increase revenue (negative, none, positive). More than half of the respondents, up to 89%, answered the question about the impact of ICT solutions on increasing profits and did not even have a single marketing solution within the organization. This implies that respondents do not have real experience with the impact of ICT solutions to support marketing on profit growth or have experience with other ICT solutions. From the sample tested so far, we chose only the answers of those respondents who answered yes to the question of whether their organization supports marketing or sales processes using specific IT solutions. This means that at least one ICT marketing support solution was present within their organization. Frequency analysis has shown that organizations that have established ICT solutions in at least one of the marketing areas largely claim that marketing digital tools have a positive impact on profit growth. Thus, in hypothesis 1, we cannot confirm the dependence between individual marketing areas that have implemented ICT solutions and the increase in profits.

In the area of productivity growth Hypothesis 2, which should be proportional to the increase in e-marketing services. Companies are divided according to whether or not they invested in ICT during the previous year. When they have invested and appear to have invested in product and service demand forecasting technologies, these firms have the most significant share of positive productivity gains. If they did not invest, it is interesting that it is precisely the inexpensive service of sales auctions that dominates, and therefore companies using this sales channel claim up to 91% that ICT has a positive impact on productivity gains. This sales channel is the most prominent in this statistical expression. Based on the above results, we can conclude that productivity is not affected by quantity but by the quality of each solution.

Conclusion

Marketing management is not just a management of an organization's marketing activities, but also includes the management of all activities whose main focus and focus is customer satisfaction and exploiting market opportunities. Based on our research, the following questions were identified for further research:

- What do companies mean by marketing information system?
- How is the marketing department managed?
- Specification of the division of marketing activities into internally and externally managed,
- Supplier relationship management as part of CRM.
- Implementing customer relationship management in business processes,
- Monitoring and analysis of the competition and its importance for business activities.

- Marketing management is not only a management of the marketing activities of an organization, but also includes the management of all activities whose main focus and focus is customer satisfaction and exploiting market opportunities. specific research of the relevant workplace.

Our research has also shown that most of the companies surveyed have a lack of work capacity, related in some cases to a lack of qualified marketing staff. Companies are also struggling with a lack of time (which is partly related) and in many companies marketing is also overlooked, it is not seen as the key factors of success and competitiveness of the agricultural company, it is not perceived as a source of sales growth and thus profit. Companies often have no marketing concept in place - some see this as their weakness. However, many companies are unable to answer the question of weaknesses in marketing management at all, so it can be assumed that they do not deal with marketing management. Several companies also mention ineffective communication within the organization itself or marketing with other departments. A similar research was carried out in 2016 by Kahraman et al., (2016) and has some similar conclusions in our research:

- Marketing management belongs to non-systematic and intuitively solved business processes,
- In business practice, there is a global trend towards customer orientation,
- Businesses see product quality as their greatest competitive advantage.

Given that the results of the research have not shown a significant impact of other marketing ICT solutions on the monitored indicators, we can recommend investing in the specific solutions mentioned above to effectively achieve higher yields and productivity. These results affect companies' investment decisions when investing in e-commerce services with a focus on sales channels. Especially in the digital era, ICT investment is a critical component of increasing the competitiveness of companies, and many companies are starting to invest cautiously, not investing in large business solutions, but in selected the most effective solutions that boost productivity and profitability the most.

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