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CONTENTS

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The Influence of Social Networks on the Choice of a University Brand by Generation Y

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Abstract

Social networks are actively penetrating into all spheres of our society. The influence of social media is strongly affected by the younger generation, who spends a lot of time in the virtual social space.

The purpose of this study was to study the effect of social networks on the choice of a university brand by representatives of generation Y. The data was collected through an online survey using the Google forms service.

The results obtained indicate that social media engagement has a positive effect on brand image. FCSMC and UGSMC have a positive effect on brand equity in Higher Education Institutions. Brand equity positively influences Brand choice intention.

The value of this study lies in the fact that it considered the influence of various factors on the formation of the intention of representatives of generation Y to choose brands of universities, taking into account the moderate effect of electronic word of mouth.

The results obtained complement the scientific literature on the effect of social media on consumer behavior. The results of this study can help in understanding the choice of students of educational organizations, taking into account the influence of social networks and electronic word of mouth, which can help university marketing departments to promote brands more effectively in the social media space.

Keywords: social media, electronic word of mouth, customer engagement, brand image, higher education

Introduction

The coronavirus pandemic has confronted business with a new reality. In a situation when there were strict restrictive measures all over the world, offline stores did not work and people were forced to isolate themselves at home, an increasing number of people became active in the online space, joined social media. Thus, according to a global survey conducted in 13 countries around the world, about 44% of respondents said that during the coronavirus they began to spend more time on social networks (Statista, 2020)

Now, more users are actively joining social networks, brands are actively involved in interactions with their current and potential customers in the space of social platforms. Many companies are increasing their presence in social networks because they realize the importance of existing in the online space to promote their brands, increase online sales and improve customer interaction, increase engagement (Keegan and Rowley, 2017)

Active participants in social media are educators of generation Y. Age data for generation Y vary according to different sources. The dates of the beginning of the millennial generation (another name for generation Y) range from 1977 to 1982, and the dates of the end of the generation vary from 1994 to 2003. Representatives of Generation Y use computers and mobile devices not just as a means of communication, they use them to interact with the world (Sternberg, 2012). The younger generation spends a lot of time on social networks communicating with peers, finding information about brands they are interested in, reading reviews and reviews, sharing their experiences. Previous studies have revealed that word of mouth plays an important role in shaping consumer attitudes and stimulating the intention to choose goods or services. Also, modern consumers are becoming less susceptible to traditional methods of promotion, for example, such as advertising, and most of them trust word of mouth because the information from other

consumers is perceived as more reliable and real (Perera et al, 2020). With the development of information and communication technologies, more consumers share their knowledge, experience, and opinions on social networks, thereby increasing the possibility of contacting a large audience of people, regardless of their physical location (Siddiqui et al, 2021). It is also worth noting that the importance and influence of electronic word of mouth on consumer intentions have increased in connection with the Covid-19 pandemic time (Puriwat and Tripopsakul, 2021). It is worth noting that the COVID-19 coronavirus pandemic also updated online education in 2020. Contemporaries have more opportunities and access to educational platforms, discounts for online education at many leading and well-known universities in various specializations remain around the world. In the context of the pandemic, new opportunities for studying at any university online have appeared, without reference to the physical location of the educational organization and the student (Kanieva and Ashenova, 2020). These conditions have led to increased competition among educational organizations both domestically and internationally.

The increasing role of social networks in the selection of brands for further interaction, the fierce struggle for customers in the field of higher education has led to the importance of studying the impact of social networks on consumer choice of universities, taking into account electronic word of mouth.

Literature Review

In modern society, where a large number of different brands prevail, which everywhere are trying to influence consumers, the issue of customers choosing a particular brand is becoming more relevant. The particular interest is the process and factors that influence the choice of applicants and students of educational organizations. In this study, the following factors were considered that may influence the choice of a brand of a higher education organization, taking into account the rapid development of social networks and their impact on consumer

behavior: social media engagement, brand image, FCSMC and UGSMC, brand equity, electronic word-of-mouth, brand choice intention.

Social media engagement

The authors of Nguyen et al (2020) consider social media engagement as the dynamics of an individual's cognitive, affective, and behavioral efforts to interact with target platforms. Future and current students can get involved in university brands on social platforms by communicating with other students, discussing educational organizations on forums, reading expert reviews, etc. In this study, the social platform Instagram was chosen as one of the platforms used in the process of social media engagement. According to research, Instagram is one of the most popular networks in Kazakhstan (Kapital, 2021), about 75% of generation Y representatives are active users of this social network (Search engine journal, 2021). If the brands of universities are represented in the social networks of their target audience, users can find information about these brands from other students of these universities, follow the pages of the brands themselves and track their activity on social networks. Thus, the image of the university brand is built in the minds of applicants. In this study, we assume the first hypothesis.

H1: Social media engagement has a significant positive effect on brand image

Brand image

The attributes and advantages of the brand that favorably distinguish it from other competitors make up the brand image. According to previous research, the brand image helps consumers answer the question: "what can a brand do for them" (Farzin and Fattahi, 2018). The brand image also correlates with what consumers think about the brand, what feelings and associations it causes them. A good brand image allows companies to stand out favorably from competitors, stand out in the market with their distinctive features (Ansary and Hashim, 2017). Previously, some studies suggested that brand image is one of the important components of brand equity in various industries (Liao et al, 2017; Sasmita and Suki, 2015; Subramaniam et al, 2014). The term brand image in the higher education industry correlates with a set of associations that are associated with a certain brand of the university and

which are closely entrenched in the worldview of people. The brand image of a university is a reflection of what this university is, what it can offer to the market and students (Rutter et al, 2017). By previous studies, we assume the following hypothesis.

H2: brand image has a significant positive effect on brand equity.

Firm-created social media communication (FCSMC)

According to previous research, FCSMC – is a "form of advertising fully controlled by the company and guided by a marketing strategy agenda" (Schivinski and Dabrowski, 2014). Now, thanks to the development of new communication technologies, when social network participants can instantly exchange information, more and more companies are realizing the importance of being present in the social media space. FCSMC is also an important and necessary component of a company's promotion strategy, taking into account modern requirements. FCSMC helps to establish contact with the audience, increase their engagement, influence their perceptions of goods and services, inform the audience, and gain data about the customers (Brodie et al, 2013). Further, based on previous studies (Sagynbekova et al, 2020; Schivinski and Dabrowski, 2014), we propose a hypothesis.

H3: The social media communication created by the Higher Education Institution has a significant positive impact on brand equity.

User-generated social media communication (UGSMC)

Social networks such as Facebook, Twitter, YouTube, blogs, and others are becoming more important and increasing the possibilities of interaction in any field (Sagynbekova, 2020). Now, when the participants of social networks are becoming more and more immune to traditional advertising created by brands, the content that is created by the users themselves (UGC) has an increasing influence on the choice of a particular product and service. Social networks allow their participants to share their opinions with a large audience, in "real-time" mode. The influence of UGC on the interaction with the brand of other participants is increasing every year and is becoming an increasingly interesting object for consideration by scientific research. Thus, a number of studies have determined that the use of UGC brands

allows you to create effective brand equity and collect information from users about the opinion and evaluation of the brand (Christodoulides, Bonhomme, and Jevons, 2012). In the field of higher education, UGSMC includes information created by students, employees, partners of universities, and which is distributed in social networks (Sagynbekova et al, 2020). Under previous studies, we propose a hypothesis.

H4: UGSMC has a significant positive impact on brand equity

Brand equity

Brand equity is strengthened by strengthening consumer associations and feelings about products and services to brands (Schivinski and Dabrowski, 2014). It is worth noting that there are many studies on brand equity in different contexts. But the sphere of higher education and, accordingly, the brand equity of universities has several distinctive features: higher education services are provided for a long period, has a significant impact on the further development of consumers' lives. Therefore, applicants devote a lot of time to choosing a future place of study (Ogunmokun and Timur, 2020). Perceiving brand equity has a significant impact on the intention to choose a particular university as a future place of study. Thus, we assume the following hypothesis.

H5: Brand equity has a significant positive effect on brand choice intention.

Electronic word-of-mouth

Electronic word-of-mouth is content concerning information about some goods or service, both positive and negative, created in the online social space by former, actual, or potential customers of the company (Sijoria et al., 2019). The development of social networks allows customers to share their ratings and feelings in the process of choosing goods or services and after interacting with specific brands. In the modern world, electronic word-of-mouth can have a significant impact on the desire of consumers to choose a particular brand (Perera et al, 2020). Electronic word-of-mouth allows students to express their opinions, share their views about universities, the educational process, and student life with other participants of social networks. Thus, electronic word-of-mouth allows future students to get

acquainted with the educational process, with the brand of the university before choosing a certain academic institution. Thus, electronic word-of-mouth can have a positive impact on brand choice intention.

Brand choice intention

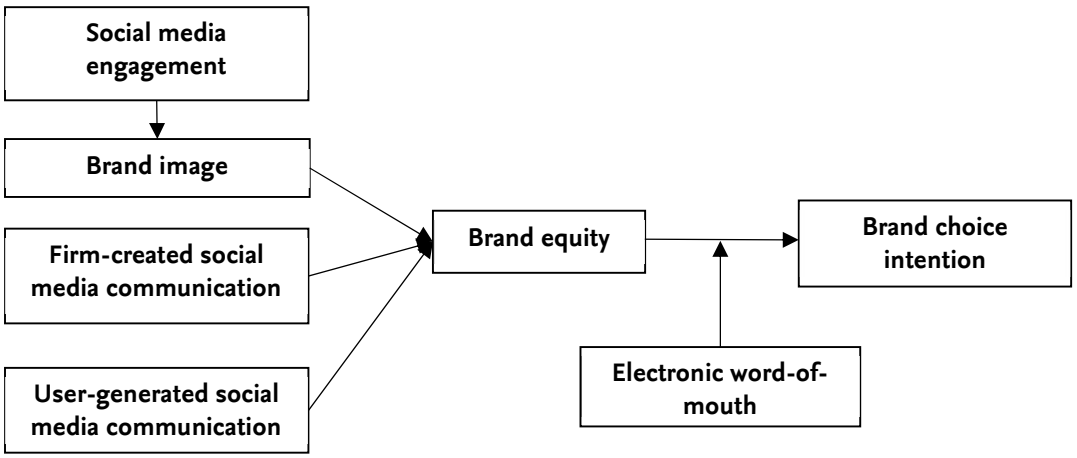

Figure 1. Research model

The brand choice intention is the degree of probability that consumers will choose a particular brand (Ojiaku and Osarenkhoe, 2018). The brand choice intention is considered the most likely predictor of actual consumer buying behavior. Modern buyers spend a lot of time searching for information, reviews, and opinions of their friends and colleagues on social networks before making a purchase decision (Farzin and Fattahi, 2018). Previous studies have found that if consumers discover a huge number of positive reviews about a product or service on social networks, this positively affects their perception of the brand and can increase the intention to choose this brand (See-To and Ho, 2014). Thus, we put forward the last hypothesis.

H6: Electronic word-of-mouth has significant moderating effects on the relationships between brand image and brand equity. The research model is shown in Figure 1.

Methodology

To collect data, a quantitative method of conducting marketing research was used, since this method allows you to obtain a large array of structured data. Taking into

account, the situation in connection with the coronavirus pandemic and the requirement to comply with security measures, remote communication, the survey was conducted online. During the online survey, questionnaires were sent to students and undergraduates studying at UIB and SDU University through the Google forms service. The sample for the survey was graduate students, because they are representatives of generation Y, and are more likely to consider the possibility of entering universities for further study soon.

The data was collected using a structured questionnaire that was developed based on the objectives of this document. The questionnaire questions were taken from previous studies that were considered relevant for measuring variables. The questionnaire questions were translated from English. To verify the accuracy of the translation, a two-stage translation procedure was used, when the originally translated text was translated back into English, and the correspondence of the meaning of the questions was observed. The questionnaire was developed in Russian.

The development of measurement elements was guided by the goal of an adequate representation of variables. All the elements were previously tested by other scientists and used in this study in an adapted form. These measurements of concepts are presented in Table 1. The questionnaire contained information about the objectives of the study, guaranteed confidentiality and anonymity of the respondent.

Respondents assessed the degree of their agreement or disagreement with the submitted statements on a seven-point scale of Likert agreements, ranging from 1 to 7, where 1 is categorical disagreement, and 7 is complete agreement. The measurement scale is very important for choosing the right statistical test. Variables can be measured and transmitted at different scales, but the most commonly used measurement scale in social and behavioral sciences research is the Likert scale (Joshi et al, 2015). Predominantly, the Likert scale is preferred because it is easy to analyze statistically.

Before conducting the main study, a pilot testing of the questionnaire was conducted, during which 6 respondents participated. During the pilot study, questions were analyzed for the degree of clarity and consistency of respondents. The questions that caused difficulty in understanding on the part of the respondents were incomprehensible to them, were later changed so that they became easy to understand on the part of the respondents.

Table 1. Measurement of research concepts

Construct/source	Items
Social media engagement (Kumar and Kaushik, 2022; Nguyen et al, 2020)	1. Using Instagram stimulates my interest in learning more about it (Instagram) 2. I feel very positive when I use Instagram 3. I am proud to be a member of Instagram social media platform 4. Whenever I am searching educational-related information, I usually use Instagram 5. I spend a lot of time using Instagram, compared to other social media platform
Electronic word-of-mouth (Farzin and Fattahi, 2018)	1. To make sure that I choose right brands of Higher education organization, I read online reviews of Higher education organization written by other fellow members in social networks 2. The information that I spread in social networks regarding the Higher education organization brand usually influences opinion of other members 3. I always publish my experiences with Higher education organization brands in social networks on request of other members 4. I am willing to share my experiences with the Higher education organization brands with other fellow members in social networks 5. I try to more effectively share my experiences with the Higher education organization brands with other fellow members in social networks
Brand image (Farzin and Fattahi, 2018)	1. Compared to other brands of the Higher education organizations, the brand recommended to me by my friends in social networks are of high quality 2. Compared to other brands of the Higher education organizations, the brands recommended to me by my friends in social networks has a personality that distinguishes itself from competitors

	3 The brands of Higher education organizations introduced by my friends in social networks have a rich history 4. The brands of Higher education organizations introduced by my friends in social networks is one of the best brands in the sector 5 My friends in social networks can reliably estimate efficiency of brands of Higher education organizations
Brand equity (Farzin and Fattahi, 2018; Yoo and Donthu, 2001)	1. It makes sense to Higher education organization brand introduced by my friends in social networks instead of any other brand, even if they are the same. 2. Even if another brand has the same features as Higher education organization brand introduced by my friends, I would prefer to choose this Higher education organization brand. 3. If there is another brand as good as Higher education organization brand introduced by my friends, I prefer to choose this Higher education organization brand 4. If another brand is not different from Higher education organization brand introduced by my friends in any way, it seems smarter to choose this Higher education organization brand
Firm-created social media communication (Sagynbekova et al, 2020)	1. I am satisfied with social media communications on Instagram of the Higher education organization brand introduced by my friends 2. The level of social media communications on Instagram of the Higher education organization brand introduced by my friends meets my expectations 3. Social media communications on Instagram of the Higher education organization brand introduced by my friends are very attractive 4. Social media communications on Instagram of the Higher education organization brand introduced by my friends perform well, when compared with the social media communications of other Higher education organization
User-generated social media communication (Sagynbekova et al, 2020)	1. I am satisfied with the content generated on social media by other users about the Higher education organization brand introduced by my friends 2. The level of the content generated social media by other users about the Higher education organization brand introduced by my friends meets my expectations 3. The content generated on by other users about the Higher education organization brand introduced by my friends is very attractive

	4. The content generated on social media by other users about the Higher education organization brand introduced by my friends performs well, when compared with other brands
Brand choice intention (Farzin and Fattahi, 2018)	1. I would rather choose Higher education organization brand introduced by my friends than the other existing (competing) brands 2. I would like to recommend Higher education organization brand introduced by my friends to other people 3 I would like to choose Higher education organization brand following their introduction by my friends

This study used descriptive statistics, regression analysis and comparison of averages (t-test and ANOVA test). The reliability analysis of the research tool was carried out using the alpha-Cronbach coefficient. The validity of the analysis was verified using factor analysis. All measurements and tests were carried out in Smart PLS 3 and SPSS 23 programs.

Findings and Discussion

During the survey, 206 responses were received from respondents. During the initial examination, 9 questionnaires were deleted, due to the fact that they contained more than 20% of the missed questions. Thus, 197 questionnaires were allowed to analyze the results.

The results of the demographic profile showed that 47.7% of these respondents are men (94 male respondents), and 52.3% are women (103 female respondents). The majority of respondents are in the age group from 18 to 20 years and make up 79.7% of respondents (157 respondents), 17.7% are 29 respondents aged 21-22 years, 4.1% of respondents aged 23-24 years (8 respondents), 1% of respondents aged 30-31 years (2 respondents) and 0.5% (1 respondent) aged 25-26.

The reliability analysis of the measuring instrument was carried out using the Cronbach's Alpha coefficient. Cronbach's Alpha is used to assess the reliability of questions when measuring a latent variable, a value greater than 0.7 is considered acceptable, more than 0.8 is a good indicator. The test conducted using the Smart

PLS 3 software showed that the measurement tool is reliable, the Cronbach's Alpha indicators for each concept are more than 0.7, and are in the range of 0.705 and 0.854. These indicators indicate that the questionnaire has a high reliability of questions for measuring variables. Reliability analysis data are presented in Table 2. In the process of reliability analysis, 1 question was removed, which reduced the level of reliability of the measuring instrument (EWOM1).

The analysis of the validity of the tool was carried out using factor analysis, which includes several indicators: convergent validity and discriminate validity.

Convergent validity was evaluated using Composite Reliability (CR) and Average Variance Extracted (AVE). All composite reliability (CR) values were also above the 0.70 threshold. They were in the range of 0.818 and 0.896, demonstrating a high level of internal consistency of questions. In addition, all AVE values exceeded 0.50. An AVE value of at least 0.50 indicates that the latent variable is, on average, "able to explain more than half of the variance of its indicators" (Hair et al, 2016). The results are presented in Table 2. Thus, the measurement model has achieved satisfactory convergent validity.

Table 2. Reliability and Validity measurements

Constructs	Cronbach's alpha	CR	AVE
Social media engagement	0,77	0,844	0,523
Electronic word-of-mouth	0,725	0,825	0,543
Brand image	0,854	0,896	0,633
Brand equity	0,705	0,818	0,534
Firm-created social media Social media communication	0,813	0,876	0,638
User-generated social media communication	0,804	0,871	0,627
Brand choice intention	0,722	0,842	0,641

Discriminant validity was evaluated by Fornell and Larcker (1981). Table 3 shows that all the square roots of AVE (diagonally in bold) were greater than the correlations between the variables (in the corresponding column and row). assuming that the validity of the discriminant has been achieved, since each reflecting variable is more closely related to its own indicators than to others. Thus, discriminant validity was well established.

Table 3. Discriminate Validity

Constructs	SME	E-WOM	BI	BE	FCSMC	UGSMC	BCI
Social media engagement (SME)	**0,723**						
Electronic word-of-mouth (E-WOM)	0,364	**0,737**					
Brand image (BI)	0,586	0,463	**0,796**				
Brand equity (BE)	0,311	0,232	0,374	**0,731**			
Firm-created social media communication (FCSMC)	0,452	0,321	0,648	0,446	**0,799**		
User-generated social media communication (UGSMC)	0,462	0,396	0,664	0,440	0,769	**0,792**	
Brand choice intention (BCI)	0,393	0,315	0,529	0,616	0,624	0,617	**0,800**

Further, regression analyses were carried out to test the hypotheses of direct influence. The results of regression analyses are presented in Table 4.

Table 4. Standard coefficient and p-value for each path

№	Hypotheses	Standard coefficient	p-value
1	SME → BI	0,586	0,000***
2	BI → BE	0,094	0,301
3	FCSMC →BE	0,223	0,035*
4	UGSMC →BE	0,211	0,046*
5	BE → BCI	0,555	0,000***

The results of the regression analysis showed that the following factors are statistically significant: the influence of social media engagement on brand image, the influence of FCSMC and UGSMC on brand equity, as well as the influence of brand equity on brand choice intention. The statistical significance of the regression coefficients is marked with "*" (p<0.05), "**" (p<0,01), "***" (p<0.001).

Further, to test the hypothesis of the moderating influence of electronic word-of-mouth, an analysis was carried out in the Smart PLS 3 program. The results of this analysis are presented in table 5.

Table 5. Moderating effect of electronic word-of-mouth

№	Hypotheses	Standard coefficient	p-value
1	Moderating effect→ BCI	0,058	0,677

This analysis shows that the moderating effect of electronic word-of-mouth on the relationship between brand equity and brand choice intention is not statistically significant.

The result of this study is that we can confirm hypotheses 1, 3, 4, 5 and 6. We reject hypothesis No. 2 "brand image has a significant positive effect on brand equity" due to the statistical insignificance of the results. So according to the results of the study, we can say that social media engagement has a positive effect on brand image, which is consistent with the results of previous studies (Kumar and Kaushik, 2022; Nguyen et al, 2020). FCSMC and UGSMC has a positive effect on brand equity. This result is consistent with previous studies ((Sagynbekova et al, 2020; Schivinski and Dabrowski, 2014) Brand equity has a positive impact on brand choice intention. This result is also confirmed by previous studies (Farzin and Fattahi, 2018; Perera et al, 2020).

The results obtained complement the theoretical knowledge about the influence of social media on the brand image being formed and the further choice of a certain brand by consumers in the field of higher education. Also, the acquired knowledge can be used by marketing departments of universities to build a more effective policy of relations with existing and potential students.

Conclusion

The results of this study can help in understanding what factors influence the choice of applicants for future training organizations. Thus, according to the data obtained, involvement in social networks positively affects the perceived brand image, and content created by organizations and users of social networks. it has a positive effect on brand equity. Thus, higher education organizations should pay more attention to the development of social networks, generate high-quality content and involve students to share their reviews, opinions and other content regarding the place of study. Positive brand equity, in turn, affects the intention of students to choose a particular brand of the university. This study did not confirm the influence of electronic word-of-mouth on the relationship between brand equity and brand choice intention as a moderator, it can be assumed that electronic word-of-mouth can have a positive or negative impact on the relationship between variables at earlier stages of perception of the university brand.

The limitations of this study are a small sample of respondents. Another limitation of the study is that the respondents were only from two universities in Almaty. In the future, it is necessary to conduct a survey of students from different universities in Almaty and other cities of Kazakhstan. Perhaps the results will be different for residents of megacities and other cities.

In further studies of the influence of social media on the choice of educational organizations by the younger generation, generation Z can be considered, since representatives of this generation are future applicants and students. Also, in the model of choosing a University brand, you can consider other variables such as Brand Interactivity, Brand Credibility, etc.

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Influence of ICT on the Competitiveness of the Trade Sector in Kazakhstan

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Abstract

As the digital economy promotes the in-depth growth of trading globalization, the degree of development of information and communication technology has had a significant influence on the competitiveness of trade sector. In light of this, a model is constructed based on Porter's Diamond model, with the world's main trading industry nations as the study object, to examine the influence of information and communication technology trade sector competitiveness. The findings show that information and communication technologies can indeed boost a country's competitiveness in trade sector; information and communication technologies have boosted developing countries' international competitiveness in trade sector, but have hampered developed countries' international competitiveness in trade sector. As a result, boosting the competitiveness of trade sector from the standpoint of information and communication infrastructure and professional abilities is critical policy for a country seeking to become a trading industry powerhouse.

Keywords: trade sector, information and communication technologies, international competitiveness, diamond model.

Introduction

Kazakhstan's trade sector growth is fraught with both obstacles and possibilities. According to WTO data, there are over 1800 obstacles to international trade sectors,

which have greatly increased trade costs, but digitalization of trade sector has helped cut trade costs and fostered the fast expansion of trade sector scale. As a result, trade sector has become the focal point of global free trade. As a result, the volume of Kazakhstan's trade sector has grown dramatically. Kazakhstan's imports of services from the rest of the globe have increased by 6.4 percent during the last 13 years. By 2020, the digital economy's added value had accounted for one-third of GDP and contributed two-thirds of GDP growth, and it had begun to have an international competitive edge.

There are presently few research on the influence of information and communication technologies (ICTs) on service commerce, and the data in existing studies is rather limited (Gyenge et al, 2021 This report examines data from 25 nations from 2009 to 2017 and employs the International Telecommunication Union's ICT Development Index to assess the degree of information and communication technology in greater depth. The sample is separated into developed and developing nations, and the heterogeneity of ICT's influence in international trade sector competitiveness is empirically examined.

Given the importance of ICT in the development of trade sector, this article will employ Porter's Diamond model to conduct empirical research on the role of ICT in promoting international competitiveness in trade sector based on an in-depth examination of the effect of ICT on promoting international competitiveness in trade sector.

To begin with, based on the import and export volume of trade sector, Kazakhstan's trade sector reached growth of 3.6 percent year on year. 7 percent, has been placed second in the globe for 5 years in a row, accounting for 5.8 percent of the worldwide total. 7 percent, becoming the greatest contributor to the process of global trade sector promotion. Furthermore, trade sector has been exhibiting a deficit, but in recent years, the growth rate of exports has been approximately 8.6 percent greater than that of imports, causing the trade sector deficit to decline year on year.

Second, our country's trade sector competitiveness is considerably inferior to our country's international position in terms of international competitiveness. There are

still certain gaps when compared to some established trade sector nations. The RCA score in Kazakhstan is 0.257, the IMS index is 0.028, and the TC index is -0.273, indicating that country urgently needs to strengthen its international competitiveness in trade sector.

We may acquire a thorough grasp of the features of our country's international competitiveness in trade sector by calculating the IMS index of various industries in trade sector. First and foremost, my country's IMS index for the trade sector as a whole has been 0.6. It varies about 0.3, indicating that Kazakhstan's trading industry's overall competitiveness is low, and it has even demonstrated a declining tendency in recent years. Second, the competitiveness of various industries in the service business varies significantly. Traditional sectors, particularly transportation and tourism, have very strong international competitiveness. The developing service sector's international competitiveness is poor. Among them, the IMS index of the telecommunications, computer, and information service industries has been significantly increasing.

Literature Review

With the digital economy's in-depth growth of the degree of service-orientedness, more and more experts at home and abroad are focusing on the link between the level of technical communication and the competitiveness of trade sector. Scholars both at home and abroad feel that the degree of information and communication has a major beneficial influence on the international competitiveness of trade sector after undertaking macro-analysis and research (Vásáry et al, 2013).

To begin with, when it comes to evaluating the international competitiveness of trade sector, experts have decided to employ a variety of indices. Researchers uses some countries as the study object and selected measures such as the dominating comparative advantage Index, the trade competitiveness Index, and the international market share to assess Kazakhstan's trade sector's international competitiveness (Marel & Shepherd, 2013; Mainardes et.al., 2017). According to Hoekman and Shepherd (2017), the volume of export trade in trade sector is an

indicator of trade sector competitiveness. Feng et.al. (2017), utilized the TC Index, RCA Index, and CA Index to compare some countries' and the United States' competitiveness in the trade sector and discovered that some countries' and the United States' international competitive advantages are highly different.

Second, research on the variables influencing international competitiveness in trade sector is an important component of this discipline. Beverelli et.al (2017), Lodefalk (2014) feel that the amount of urbanization, human capital, and trade sector growth are the most important influencing elements for trade sector competitiveness. Schmenner (1986) discovered that trade sector agglomeration may greatly boost trade sector competitiveness by examining trade sector in key trading nations. Normann (2001), Adlung (2015) discovered that the proportion of people engaged in the trade sector, GDP per capita, export volume of goods trade, openness of trade sector, and technical advancement are the primary variables influencing a country's competitiveness in trade sector using the "Diamond model". Hoekman (1995) employed major nations as comparison items and discovered that foreign direct investment and trade openness make a country's trade sector more competitive.

Finally, there has been little research on the interaction between ICT and service commerce. The majority of previous research has focused on the link between ICT and trade in goods, which completely illustrates that boosting ICT levels may greatly increase trade in goods development. According to Hummels et.al. (2001), ICT can stimulate the development of trade sector by lowering trade costs. According to Gereffi (1999) model, a rise in the number of Internet users in a nation will encourage service commerce. According to Lavissière (2014), ICT has aided the development of service commerce through the usage of Internet technologies. Magee (2008), Lee and Cho (2017) examined certain OECD nations using the growth accounting approach and discovered that the contribution rate of ICT capital to the trade sector is substantially larger than that of the manufacturing industry. The trade model was used by Baier and Bergstand (2007) to demonstrate that the promotion effect of information and communication technology on "commercial existence" trade sector is greater than that of "cross-border" trade

sector, and that the promotion effect of trade sector exports is much greater than that of imports. According to Park and Park (2011), Acemoglu (2002) the importance of information and communication technologies in conventional trade sectors like as banking, insurance, and engineering research and development has developed more slowly, while its function in developing sectors has become more visible.

In conclusion, the available research only investigates the influencing variables of trade sector competitiveness, and the literature on the influence of information and communication technologies on trade sector competitiveness is insufficient. With the digital economy's in-depth growth of the degree of service-orientedness, it is very vital to research the interaction between information technology and service commerce at a deeper level. The major work of this article is as follows, based on the following analysis: To assess the international competitiveness of trade sector, use the International Market Share index (IMS). Using panel data from 25 major global trading countries and comprehensive consideration of education expenditure, R&D expenditure, accepted intellectual property rights, Internet penetration rate, and other control variables, empirically analyze the impact of information and communication technologies on the competitiveness of trade sector.

Data and Methodology

This article focuses on the influence of a country's information and communication technology (ICT) on our country's international competitiveness in the trade sector. This article employs the ICT Development Index (IDI) issued by the International Telecommunication Union in 2007 to calculate the degree of ICT development. The IDI is a comprehensive indicator that is used to compare the degree of ICT in different nations. trade.

RCA, IMS, and TC are the primary metrics used to assess a country's international competitiveness in trade sector. Taking data availability into account, this paper uses relevant data from 25 World Bank countries from 2009 to 2017 to calculate various indicators of a country's international competitiveness in trade sector, and

chooses the international market share (IMS) index as the interpreted variable to measure the level of a country's international competitiveness in trade sector.

After conducting a comparative analysis of the international competitiveness of more than 100 industries in ten countries at the end of the twentieth century, Professor Porter of Harvard University developed a more systematic analysis model of industry international competitiveness: the Diamond model. This methodology is convincing for assessing a country's industries' international competitiveness and has theoretically been accepted by academics. According to the model, a country's industry's international competitiveness is tied to production variables, demand factors, associated supporting industries, corporate strategies, structures, rivals, governments, and opportunities. As a result, this essay will choose control variables from among these factors. For more information, see Table 1.

Table 1. Names and descriptions of each variable

Variable		*Name*
Dependent variable	IIMS	International market share
Independent variables	Int	Internet penetration rate
	R&D	R&D expenditure
	EE	Education expenditure
	LnI	IDI index
Control variable	Op	Openness to trade sector
	Fin	Financial penetration
	Exp	Export volume of trade
	GDP	GDP per capita

This research develops a basic regression model based on the variables mentioned in Table 1:

$$IMS = \beta_0 + \beta_1 Int + \beta_2 RD + \beta_3 EE + \beta_4 LnI + \beta_5 Op + \beta_6 Fin + \beta_7 Exp + \beta_8 GDP + \varepsilon$$

IMS is the interpreted variable, that is, Kazakhstan's trade sector competitiveness index, ßk (k= 0, 1,..., 9) is the variable's coefficient, eit is the model's random error term, I represents the country, and t represents the year. In this research, the IDI index is logarithmically processed to decrease data heterogeneity. Simultaneously, due to the slight difference in royalties paid for intellectual property rights, it is numerically processed.

Results and Analysis

Based on the availability of data, this article picks 25 significant nations as research subjects to explore the variables impacting a country's international competitiveness in trade sector throughout a time range of 2009-2017.

The empirical evidence and international market share (IMS) are obtained from the United Nations Conference on Trade and Development (UNCTAD) database, which has been compiled and computed. The IDI is calculated using data from the International Telecommunication Union and the World Bank. Other control variables are collected and computed using the World Bank and United Nations Conference on Trade and Development databases.

The regression is shown in Table 2 using the International market share (IMS) index of trade sector as the interpreted variable. Table 2 shows that information and communication technology may greatly boost the competitiveness of trade sector, which is consistent with the majority of previous study findings.

Table 2. Regression results of all samples

Variable	Fixed effect	Random effect
Int	0.026***	0.026***
	(6.22)	(5.58)
R&D	0.000***	0.000***
	(3.64)	(3.36)
EE	-0.002***	-0.002***
	(-2.98)	(-2.97)

LnI	0.000*** (0.43)	0.000*** (0.48)
Op	0.001*** (2.04)	0.002** (1.13)
Fin	-0.000 (-5.76)	-0.000*** (-5.30)
Exp	-0.69*** (0.000)	-0.35** (0.000)
GDP	-0.64* (-0.011)	-0.61*** (-0.015)
Cons	-0.015*** (-7.33)	-0.015** (-7.33)

Note: *, ** and *** indicate that the regression results are significant at the levels of 10%, 5% and 1%, respectively.

After thoroughly studying the regression findings of the three models, we can conclude that the influence of the ICT Development Index (LnI) on international market share (IMS) is considerably positive, as expected. The education expenditure to GDP ratio (EE) has a large negative influence on international market share (IMS), which is contrary to assumptions. It could be because the overall rate of further education in these sample countries is low, resulting in fewer talents who can provide trading industries and fewer people engaged in this industry, resulting in a negative correlation between the proportion of education expenditures and the international competitiveness of trade sector.

The percentage of R&D investment to GDP (R&D) has a large negative influence on international market share (IMS), contrary to predictions. In practice, increasing R&D spending may boost a country's industry's competitiveness. The likely cause is that our country's R&D spending on trade sector is not exceptional, which has resulted in a negative influence of our country's R&D expenditure on our trade sector's competitiveness. The recognized intellectual property rights charge has a considerable beneficial impact on global market share (IMS). The intellectual property fees collected represent a country's level of intellectual property protection.

The more intellectual property fees a country collects, the more intellectual property rights it has and the better its intellectual property rules are. This demonstrates that a country's intellectual property rights fees are also one of the more important elements influencing the worldwide competitiveness of its trade sector.

Because of the disparities in economic level and industrial structure between emerging and developed nations, the influence of information and communication technology on them would differ. As a result, this article employs sample-by-sample regression to investigate the variations in its impacts. This leads to the conclusion that information and communication technologies have a considerable positive influence on the interpreted variables, which is in line with predictions. Every unit improvement in the level of information and communication technology can boost trade sector's international competitiveness by 0.45 percent. In terms of controlling variables, GDP per capita and intellectual property fees received have a significant positive impact on the explained variables, which is consistent with expectations; however, education and R&D expenditure have a negative impact on the explained variables, which is inconsistent with expectations.

The master regression model's regression findings in developed nations. The impact of information and communication technology on the interpreted variable is negative, which contradicts expectations. Other control factors have a negative influence on the explained variable, which is inconsistent with predictions. GDP per capita and intellectual property fees received have a large positive effect on the explained variable, which is inconsistent with expectations.

In conclusion, the empirical findings are congruent with earlier studies. There are disparities in the growth of trade sector between developed and developing nations, according to Yadav (2014) and Choi (2011). Developing countries have lower levels of ICT development and lower ICT costs than industrialized countries. As a result, an increase in the level of information and communication technology has a negative effect on the growth of the competitiveness of trade sector in developed countries, whereas it has a positive effect in developing countries, implying that

developing countries can improve their competitiveness in trade sector by improving their level of information and communication development.

Because the prior empirical study cannot rule out endogenous flaws and crucial variable omissions, an endogenous test is necessary. According to the existing research, regression analysis of the main explanatory variables' lag phases 1, 2, and 3 was employed. Table 3 displays the results. The regression findings are found to be consistent with the main regression model, and they are all highly significant.

Table 3. Regression results of hysteresis core explanatory variables

Variable	*Lag Phase 1*	*Lag Phase 2*	*Lag Phase 3*
Int	0.001***	0.005***	0.003***
	(4.71)	(2.83)	(1.07)
R&D	0.000***	0.000***	0.000**
	(3.21)	(4.91)	(3.86)
EE	-0.002***	-0.002**	-0.002***
	(-1.63)	(-1.11)	(-1.12)
LnI	-0.001	-0.001	-0.001
	(-2.52)	(-3.13)	(-3.06)
Op	-0.015***	-0.015***	-0.015***
	(-4.21)	(-2.46)	(-1.22)
Fin	0.015**	0.015**	0.015**
	(4.41)	(2.21)	(0.49)
Exp	-0.015	-0.015	-0.015
	(-0.70)	(-0.55)	(-0.03)
GDP	-0.015	-0.015	0.010
	(-0.40)	(-0.36)	(0.05)
Cons	0.012*	0.000	0.001*
	(-0.74)	(0.04)	(0.81)

Based on prior research, this study proposes the degree of ICT application as an alternative indicator of ICT progress. It has been discovered that the use of ICT has

a beneficial influence on the competitiveness of the trade sector, which is consistent with the results of the master regression model.

Conclusions

This article examines the international competitiveness of my country's trade sector and discovers that, while my country's trade sector is growing rapidly, the trade sector deficit remains large; at the same time, the RCA index, IMS index, and TC index of the world's major trading countries show that my country's trade sector lags behind that of developed countries. To investigate the impact of information and communication technologies on the international competitiveness of trade sector, this paper uses Porter's "Diamond" model as the research object, and establishes an empirical model for analysis using 25 major trading countries around the world.

First, information and communication technology will boost emerging nations' international competitiveness in the trade sector. ICT infrastructure is a necessity for developing a digital economy and an essential component of the country's urban construction, and the government's primary responsibility is to perform a good job in economic development. On the one hand, the government should provide financial and policy support to improve ICT infrastructure, particularly in rural and remote areas; on the other hand, our country should encourage small and medium-sized enterprises to transform, particularly productive enterprises, so that they can participate in the e-commerce market through the transformation of ICT technology.

Second, information and communication technologies undermine developed countries' international competitiveness in the trade sector. The high cost of ICT in developed countries has resulted in a low level of ICT application. As a result, our government should increase internet penetration while cutting ICT expenses in order to boost our country's international competitiveness in the trade sector. Improving our country's autonomous innovation and R&D capabilities is key to strengthening its competitiveness. There is unquestionably a gap between my

country and the industrialized ones in terms of critical technology. Many critical technologies still need to be imported and duplicated. To gain competitiveness, we must strengthen our R&D operations, capture control of critical technologies, and manufacture goods and services with distinct characteristics. This can also help to minimize the trade sector deficit and increase the competitiveness of our country's trade sector.

Finally, education spending has a detrimental influence on trade sector competitiveness. The total rate of further education in these sample nations is low, therefore there are fewer talents who can deliver digital services. Furthermore, this industry employs fewer people, resulting in a negative association between the share of education expenditures and the international competitiveness of trade sector. People are the cornerstone of the country's scientific and technical advancement. As a result, our country must prioritize education, deeply implement the strategy of revitalizing the country through science and education, the strategy of a powerful country with talents, and the innovation-driven strategy, and improve talent training programs in real time in response to the new requirements of social development and economic construction, further improve the quality of talent training, and cultivate top-tier innovative talents for the new era.

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Development of the Agro-Industrial Complex in Kazakhstan

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Abstract

The article is devoted to the analysis of foreign trade in agricultural products of the Republic of Kazakhstan. The analysis of indicators of export of agricultural products of the country. In the process of studying the foreign trade turnover of agricultural products of Kazakhstan, identified the main trading partners or importers of agricultural products of the Republic.

The analysis of changes in the structure of exports of agricultural products of the Republic to the countries of the Commonwealth of Independent States and the rest of the world. The main agricultural products occupying significant shares in the structure of export of the Republic are determined. For the analysis, a statistical review of the dynamics of foreign trade in agricultural products over the last five years is presented. The analysis of indicators of production of agricultural products, as well as the share of manufactured products for export (Simić, Stankov, 2020).

The study confirmed that the share of agricultural exports in the overall structure of the country's exports is insignificant. A significant part of the exported agricultural products are directed to the CIS countries and neighboring countries. A significant part of the export of agricultural products falls on cereals. The share of this category of goods in the total income from exports of food and agricultural raw materials is 90 percent.

Today in Kazakhstan, a lot of attention is paid to agriculture. Because it is an agrarian country. A lot of the country's population lives in rural areas. Engaged in the following activities: growing crops and small medium - sized businesses.
Thus, exports and foreign trade in agricultural products in General are a source of growth of the agricultural economy for the country, the external factor is important to take into account when building forecasts of economic growth and modeling the economic policy of the country in the field of agriculture.

Keywords: foreign trade turnover, export, import, agro-industrial complex, agriculture, Commonwealth of Independent States, Eurasian economic Union, agricultural sector, international trade, trade partners, products, services.

Introduction

In today's market economy, one of the most regulated and state-supported sectors is agriculture. This is determined by the historical and social importance of this sector in the development of countries, especially in maintaining income and employment in rural areas, ensuring food security, rural development and the desire to preserve the traditional rural landscape and population. As you know, Kazakhstan is one of the largest grain-growing and grain-processing regions of the world, where traditional animal husbandry is also well developed (Yevseytseva, Volkovynska, 2019).

Kazakhstan is one of the largest grain-growing countries in the world. Mainly strong and durum wheat varieties with a high content of gluten are cultivated in grain-sowing areas, such wheat is in great demand on the world market (Beisembay, Ernazarov, 2021).

Plantings of grain crops, in general, occupy an area of 21839,9 thousand hectares, of which 15 405,4 thousand hectares are intended for grain crops (including rice) and legume crops, gross yield of which is 20585,1 thousand tons (Kurmanova, Sukhanberdina, Kim, 2021).

Agro-industrial complex (hereinafter - AIC) is one of the important sectors of the economy, which forms food and economic security of the country, as well as labor and settlement potential of rural areas. Agro-industrial complex of the Republic of Kazakhstan (hereinafter - the ROK) has good prospects for further development: export positions of oil and meat sectors are strengthening, in addition Kazakhstan has quickly become one of the largest exporting countries of grain and flour in the world (Contents of Agricultural Economics, 1997). The membership of Kazakhstan in Eurasian Economic Union (hereinafter - EAEU) and World Trade Organization (hereinafter - WTO) creates opportunities and at the same time makes high demands on competitiveness in both domestic and foreign markets (Abdulai, Mishra, 2019).

Material and Research Methods

The methodological basis of the research consists of scientific works of domestic scientists and foreign authors in the field of development of foreign trade activities of the state, legislative and regulatory acts of the Republic of Kazakhstan, regulating foreign trade activities of the domestic state (AIG Capital Partners Inc., 2007).

The methods of historical, institutional, systemic, interdisciplinary, structural and functional, statistical and comparative expertise were widely used in the study of the peculiarities of the formation of the structure of foreign trade activities of the state in the Republic of Kazakhstan. With the use of these methods, the development of the structure of foreign trade activities of the state in the Republic of Kazakhstan in the conditions of the formation of the industrial state allowed to be considered as a complex, complex and sustainable development system.

The results and main conclusions of the research were based on various methods of economic research, such as methods of comparative and factor analysis, evaluation methods, logical and statistical methods (Naukenova 2020).
As the information base of the study were laid the legislative documents of the Republic of Kazakhstan, other legal and regulatory acts, analytical collections of the Ministry of the Republic of Kazakhstan, studies of national and international experts and organizations, as well as information on official statistical information of

Kazakhstan and foreign countries, periodicals and scientific data (Government program "National Export Strategy of the Republic of Kazakhstan", 2015).

Findings and Discussion

Increased efficiency and higher growth rates of the republic's economy, respectively, agriculture, according to experts, require a better system of state regulation and organization of foreign trade (Abbaszade, 2021).

According to the Statistics Committee of MNE RK, foreign trade turnover of Kazakhstan in 2018 amounted to 77.6 billion USD, which is 25% higher compared to 2017 (62.1 billion USD) (Garcia-Torres, Conservation Agriculture, 2003).

Kazakhstan's exports in 2018 grew by 31.6% to 48.3 billion USD, while Kazakhstan's imports in 2017 grew by 15.5% to 29.3 billion USD.

Export growth is justified by increase in supply of such goods as:

- crude oil - 26.6 billion USD (its share in export is 55%). Growth by 37.8% or 7.3 billion USD (from 19.3 to 26.6 billion USD);
- agricultural commodities – 2.4 billion USD (5% share in exports). Growth by 11.2% or 243.2 million USD (from 2.1 to 2.4 billion USD). Due to an increase in export of such agricultural products as sunflower seeds (by 62.2% or by 34.2 million USD), potatoes (by 5.9 times or by 29.7 million USD), barley (by 26.3% or by 28.7 million USD). At the same time, export of such goods as wheat flour (by 7.1% or 35.7 million USD), wheat (by 4.8% or 33.3 million USD), tobacco products decreased (by 17.6% or 19.4 million USD);
- copper and cathodes from copper - 2.3 billion USD (share 4.8%). Growth by 28.3% or 516.6 million USD (from 1 825.9 to 2 342.5 million USD).
- natural gas - 2.3 billion USD (share 4.7%). Growth by 30.2% or 524.4 million USD (from 1 738.7 to 2 263.1 million USD).
- ferroalloys - 2.2 billion USD (4.6% share). Growth by 57.5% or 805.2 million USD (from 1 400.5 to 2 205.7 million USD).

- ores and copper concentrates - 1.1 billion USD (2.3% share). Growth by 2.3 times or by 620.2 million USD (from 460.1 to 1 080.3 million USD).

Foreign trade turnover of the Republic of Kazakhstan within EAEU grew by 25.9% and reached 17.4 billion USD in 2017 from 13.8% billion USD in 2017. At the same time, export grew by 30.2% to 5.1 billion USD in 2018 from 3.9 billion USD in 2017. Import reached 12.2 billion USD in 2017, from 9.9 billion USD in 2017.

The main export goods from Kazakhstan to EAEU countries are:

- agricultural products - 457.2 million USD (share in exports 8.9%). Decrease by 1% (by 44.4% or by 49.3 million USD), cotton fiber (by 49.6% or by 12.4 million USD), barley (by 71.9% or by 4.8 million USD). At the same time, export of such goods as chocolate increased (by 59.6% or by 12.1 million USD), sugar confectionery (by 45.6% or by 10.2 million USD), sunflower oil (2.5 times or 5.2 million USD);
- flat rolled products made of non-alloyed steel, hot-rolled - 393.6 million USD (share 7.7%). Growth by 2.7 times (by 245.5 million USD);
- flat rolled products made of non-alloyed steel, plated - 334.6 million USD (share 6.5%). Growth by 41.7% (by 98.4 million USD);
- aluminum oxides and hydroxides - 330.4 million USD (6.5% share). Growth by 3.9% (by 12.5 million USD).

Today, three main groups of countries form the global market for agricultural raw materials: developed market economies, developing countries and transition economies. These groups have a different nature and impact on foreign trade of agricultural products and on the state of relevant global food market.

Developed countries occupy a dominant position in international trade of agricultural products, producing and consuming more than two thirds of it. At the same time, in the first half of the 1990s, there was a tendency to reduce the share of developed countries in world trade of agricultural products and to strengthen position of developing countries (Bakhshiev, 2015).

Export of domestic agricultural products is a very insignificant and consistently diminishing value (share) of both total exports and world trade of relevant products.

Moreover, a significant part of agricultural products exported abroad were meat and by-products (fresh, frozen and chilled), wheat and meslin, barley, rice, wheat flour or wheat-rye flour, wool and cotton fiber.

Table 1. Structure of agricultural exports, thousand USD

Name of goods	2014	2015	2016	2017	2018
meat and by-products	8 163,3	24 541,6	22 984,8	19 942,2	20 120,1
wheat and meslin	125 3937,3	960 072,3	688 738,7	694 089,2	659 526,1
barley	60 329,5	142 761,6	104 368,5	109 078,6	137 151,2
rice	20 824,2	21 336,2	31 015,7	16 413,6	22 026,2
wheaten flour	580 232,6	561 601,4	493 724,2	505 110,9	469 402,2
wool	5 575,0	6 012,7	4 572,3	3 905,2	7 303,9
cotton fiber	137 078,2	80 140,5	53 541,9	78 474,0	92 570,7
Note. Compiled by the authors					

Among the main exported agricultural products, producers of such goods as meat and by-products, barley and wool achieved a significant increase in 2018 compared to 2014. Growth in sales abroad of meat and by-products in 2018 was more than 2.4 times compared with 2014. During the same period, export of barley increased 2.2 times. Overseas wool export increased 1.3 times over the same period.

It should be noted that export growth in these categories of goods was accompanied by increase in production volume, respectively. In 2018, 1.2 times more meat and by-products were produced than in 2014. 1.3 times more barley, 1.1 times more wool, respectively was produced for the same period.

The largest part of agricultural output is rice. In 2018, 66.5% of the grown rice was exported. This indicator is growing every year. In 2014, export of this product was 37.2%, in 2016- 40.4% of the volume produced. Wheat flour was on the 2nd place. Export of this product in 2018 reached 58.9% of production volume. In 2014, sales volume abroad for this product was at the level of 47.4%, in 2016 it reached 48.6%.

The greatest growth in export over the last year was achieved by wool manufacturer. In 2018, they exported 28.7% of the output. Whereas, in 2014, this indicator was 15.7%, and in 2016 - 13.7% of production volume.

Among exported goods in recent years, the share of wheat and cotton is declining. In 2014, 36.7% of grown wheat was exported. In 2016, this figure dropped to 32.6%, in 2018 to 28.4%.

The situation is similar with cotton. In 2014, 20.6% of harvested cotton was sold abroad. In 2017, already 19.6%, and in 2018 decreased to 18%.

Table 2. Production of the main exported agricultural goods

	2014	2015	2016	2017	2018
meat and by-products, thousand tons	871	900,2	931	960,7	1 017,6
exported, thousand tons	3,0	8,9	11,9	12,4	9,2
wheat, mln ton	13,9	12,9	13,7	14,9	14,8
exported, mln ton	5,1	4,2	3,6	4,5	4,2
barley, mln ton	2,5	2,4	2,6	3,2	3,3
exported, thousand tons	246,0	711,2	632,5	780,8	903,6
rice, thousand tons	144,0	150,5	164,5	173,9	148,5
exported, thousand tons	53,5	51,8	66,4	69,3	98,9
wheaten flour, mln ton	3,8	3,8	3,7	3,9	3,9
exported, mln ton	1,8	1,8,	1,8	2,3	2,3
cotton fiber, thousand tons	396,7	320,7	273,9	286,7	330,5
exported, thousand tons	81,7	47,8	39,8	56,1	59,4
wool, thousand tons	37,6	37,8	38,0	38,5	39,0
exported, thousand tons	5,9	6,3	5,2	6,5	11,2
Note. Compiled by the authors					

Export volume of barley, meat and by-products has not changed much over the past five years. The share of barley sales abroad in recent years is stable. It remains at the level of 0.2-0.3% of production volume. This indicator on production of meat and by-products is 1.0-1.3% of the volume produced.

Export geography by main agricultural products is diverse. Over the past few years, export of meat and by-products (fresh, frozen and chilled) was carried out in 5 CIS countries and 8 countries of the world (Dunchenko, Yankovskaya, 2013). Wheat and meslin was supplied to 6 CIS countries and 25 countries of the world. Barley was exported to 7 CIS countries and 14 countries of the world, rice to 8 CIS countries and 8 countries of the world, wheat or wheat-rye flour to 9 CIS countries and 10 countries of the world, wool to 4 CIS countries and 4 countries of the world, cotton fiber to 5 CIS countries and 7 countries of the world. It should be noted that in the export of basic agricultural goods significant share falls on the CIS countries (Baourakis, Doumpos, Kalogeras, 2002).

Export of such products as meat and by-products (fresh, frozen and chilled), in recent years is decreasing every year.

Compared with the previous year in 2016, export volume for this category of products decreased by -6.43%, or by 1 575 thousand USD from 24 542 thousand USD to 22 906 thousand USD. In 2017, decrease amounted to 13.18% to 19 886 thousand USD, in 2018 by -16.13% to 16 679 thousand USD. This is due to decline in export to the main consumer country. Since, about 75% of such products as meat and by-products (fresh, frozen and chilled) are exported to the Russian Federation. However, export volume of these products to this country decreases every year. In 2015 10 998 tons were exported, in 2017 – 8 942 tons, in 2018 - already 7 056 tons (Kvyatkovskaya, Petraev, 2012).

Since 2013, export of wheat and meslin is also decreasing every year. Thus, export of this product to the CIS countries decreased by 32.40% from 910 718 to 615 684 thousand USD. In 2015, by 11.75% to 543 368 thousand USD, in 2016, 10.32% to 487 308 thousand USD, in 2017 by 9.81% to 439 487 thousand USD. Decline was due to a decrease in deliveries of almost 8.9 times to Russia, despite the fact that Uzbekistan and Tajikistan increased their purchases by almost 2 times more. Thus, export volume of this category of products to Russia in 2017 decreased to 130 960 tons from 1 138 377 tons in 2013, whereas in Tajikistan it increased from 654 632 tons to 1 050 834 tons, and to Uzbekistan from 748 132 tons to 1 686 732 tons for the same period. However, in 2018, exports increased compared to the previous

year by 37.8% to 605 653 thousand USA. Due to the growth of supplies to Azerbaijan by 3.8 times to 289 124 tons, to Russia by 1.9 times to 246 942 tons, and delivery to Turkmenistan by 259 858 tons began (Gerasymchuk, Popyk, 2018).

In export of such products as wheat or wheat-rye flour there is a tendency of annual decline in the CIS countries. In 2014 decrease amounted to 21.84% to 337 141 thousand USD, in 2015 by 22.55% to 261 128 thousand USD, in 2016 by 34.75% to 170 381 thousand USD, and in 2017 by 16.81% to 141 738 thousand USD. However, in 2018, the growth was 7.9 % to 152 908 thousand USA (Bilovol, Chaikina, 2016).

It should be noted that decline in export of these products is associated with a decrease in demand from Uzbekistan by almost 1.5 times. If in 2013, export amounted to 983 918 tons, in 2017 – 627 185 tons. And also with a decrease in supplies to Tajikistan from 231 666 tons of 2013 to 53 100 tons in 2017. However, export growth in 2018 was provided by such countries as Kyrgyzstan (by 42.2% to 35 439 tons), Russia (by 63.5% to 31673 %), Turkmenistan (by 76.9% to 63 250 tons).

For this category of products, exports to the rest of the world increased, despite the decline in 2018. Deliveries volume in 2013 amounted to 428 561 tons, then in 2015 - 784 783 tons, in 2017 – 1 555 157 tons, however in 2018 it decreased to 1 456 422 tons. The main importer of this product is Afghanistan. Purchases volume by this country was carried out in 2013 – 420 564 tons, in 2015 – 778 676 tons, in 2017 - 1 545 319 tons, in 2018 1 422 654 tons.

A similar situation is observed in the export of other major agricultural products to the rest of the world.

In recent years, there has been an increase in barley export to the rest of the world. Thus, in 2016, the growth amounted to 1.05% and reached 99 135 thousand USD, in 2017 it grew by 32.08% to 130 939 thousand USD, in 2018, 2.4 times to 293 537 thousand USD compared to the previous year. Cotton fiber export increased by 99.32% and reached 42 163 thousand USD, in 2017 by 37.66% to 58 043 thousand USD, however, in 2018 it decreased to 45 686 thousand USA.

In addition, wool export in 2018 reached maximum volume over the past 5 years. If, in 2016, export volume amounted to 3 348 thousand USD, then in 2017 it reached 7

077 thousand USD, in 2018, 6 086 thousand USD, although exports amounted to 12 540 tons.

Also, export of wheat and meslin in recent years is increasing. If in 2016 export of this product was 206 781 thousand USD, then in 2017 it grew by 42.24% or 220 039 thousand USD. However, compared to 2014, export decreased by 36.1%. The main buyers are such countries as China, Afghanistan and Italy. In 2017, China imported 28% of all meslin and wheat exported. Import volume of these products amounted to 306 913 tons, whereas in 2013 the volume amounted to 124 357 tons. In 2018 China imported 549999 tons. Afghanistan increased import volume of wheat and meslin more than 8 times. In 2013, export amounted to 33 524 tons, in 2015 - 140 386 tons, in 2017 – 284 518 tons, in 2018 – 386 757 tons (Zhumanova, 2013).

A similar situation is with export from Italy. In 2014, this country imported only 21 733 tons, but in 2016 it already imported 156 165 tons, and in 2017 – 233 100 tons, in 2018 348 419 tons.

It should be noted that growth of rice export to other countries in 2017 increased by 16 times compared with last year. In 2016, export increased by 22 times or 176 thousand USD, in 2015 - 8 times or 2 856 thousand USD. However, in 2018 it decreased to 1 599 thousand USD.

The main buyers are the CIS countries. Thus, in 2017, Russia imported more than 50% of exported rice to the CIS countries and 48% of all exports. Having increased import volume by more than 2 times compared to 2013, export volume to this country in 2013 was at the level of 21 584 tons, in 2017 – 47 631 tons. However, in 2018 the export of rice in this country has declined by 36.9% to 30 009 tons.

Tajikistan ranks second with an import volume of 33 245 tons, and Ukraine 12 937 tons of rice by the results of 2017 and Uzbekistan 11 958 tons by the results of 2018.

As for barley export to the rest of the world in 2017, 96.9% or 831 045 tons belong to Iran. In 2018, this country purchased 1 595 718 tons. In 2013, barley export to this country amounted to 121 644 tons or 72% of export to other countries of the world. Afghanistan is in 2nd place in terms of barley import. In 2014, this country

bought 9 314 tons, in 2017 there were 15 387 tons of barley, however in 2018 it decreased to 11 837 tons.

In recent years, there has been a tendency to increase export of wool and cotton fiber to non-CIS countries. The main importer of wool is China, which every year increases purchase volume. In 2014, purchase volume amounted to 3 681 tons of wool, then in 2017 – 10 627 tons or 94.8% of the total export of these products, in 2018 it grew 11315 tons.

Export of cotton fiber is sent to such countries as the Republic of Latvia, the Republic of Moldova and Russia. In 2017, import from Latvia amounted to 32 572 tons or 54.8%, Moldova 11 991 tons or 20.2%, Russia 6 573 tons or 11.1% of total export. Compared to 2013, import volume by Russia decreased by almost 5 times or from 32 852 tons. However, in 2018 the volume of exports to other countries decreased by 26.6% to 27 229 tons (Gerasymchuk N. 2017).

Conclusions

Thus, it is possible to speak about fully formed areas of domestic agricultural products export, focused on quite stable models of foreign trade operations and demand from the partner countries for the products of agro-industrial complex (Gebhardt, Lee, Swaminathan, 2001).

1. Possibilities of intensive growth in revenues from export of basic agricultural products are practically not exhausted. Export potential can be increased without significant damage to domestic market and domestic consumption. Part of export of agro-industrial complex products accounts for grain crops. Their share in total income from export of food and agricultural raw materials was more than 90%. Thus, export of wheat and meslin accounts for 46.8%, wheat flour 33.3%, barley 9.7%, rice 1.6%. Whereas, the share of cotton fiber is 6.6%, meat and by-products 1.4% in total export of agricultural products.
2. In general, the above indicators and trends in dynamics of agro-export do not give grounds for optimism regarding its prospects. The total income from the export of basic agricultural products in 2014 amounted to 20 661 thousand USD,

in 2017 – 1 427 014 thousand USD, in 2018 – 1 408 100 thousand USD. Based on these indicators, it is possible to calculate how much profitability of agricultural products export will change in the future. As a result of calculations, the following equations were obtained: y = -16855x + 2E + 06.

3. The basis for entering the world market should be not only the use of already existing competitive advantages, but creation of economic mechanism that forms a competitive environment that allows local enterprises to achieve international success (Gilbert, Morgan, 2010). The potential of the republic in this direction lies in:
   - improvement of exported products structure,
   - improvement of efficiency of foreign trade operations regulation,
   - unshadowing,
   - improvement of financial position of manufacturers.

With respect to domestic producers of agricultural products, a policy of state protectionism should be pursued, ensuring conditions for normal competition in domestic and foreign markets (through application of sound customs duties, taxes, fees).

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Rebranding of OLX Ad Service Platform

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Abstract

The report describes the methodology for conducting marketing research, and records the results of the work done. All the knowledge gained about the topic of rebranding is described in the literature review. To prove the hypothesis, a survey was conducted with various groups of people. The results of the study are summarized and recommendations are described (Dymova, Bronnikova, 2018).

Branding is a whole science that includes various directions in working with brands, one of which is rebranding. Rebranding is a brand-changing system that companies resort to in various not-so-good situations. Nowadays, there is a problem associated with the rebranding process itself, companies do not understand that the problem is not in the wrong choice of the target audience, but in the fact that the brand may turn out to be unpleasant to the eye, uninteresting or not well adapted to modern conditions (Karpova, 2017). Rebranding is something that will never lose its relevance because companies change, develop, modernize and, in general, try to adapt to situations.

Key words: rebranding, branding, loyalty, consumer, promotion.

Introduction

Rebranding is a brand change. It is one of the marketing tools, characterized by a change in the name or logo of a company, its idea, or, for example, by updating the visual design of a brand, by choosing a new advertising strategy.

For our research, we chose OLX, namely the rebranding. We researched this topic, because nowadays more and more companies, manufacturers become boring, become uninteresting or have an uninteresting TM. Indeed, there is a lack of academic work in this area in the current literature, which in turn prevents managers from making informed and informed decisions when changing brands.

In many ways, the lack of theoretical guidance leads to randomness and randomness in rebranding planning, which ultimately contributes to a certain arbitrariness and uncertainty of the results. This article attempts to overcome the above limitation and systematically present the foundations of rebranding, which would lay a theoretical foundation for further theoretical and empirical research.

With this study, we want to understand how companies need rebranding, whether it is always effective and whether it helps any outdated brands at all (Tolstyakov, Nesterov, 2016). In this case, we want to understand what has changed since the OLX rebranding, what both ordinary people and entrepreneurs think about it, whether the interface has become more user-friendly, whether visits have increased, whether they like the new logo, colors and, in general, how everyone has affected changes in the number of users (Domnin, Starov, 2017).

OLX has recently undergone a rebranding. First, they changed the design and interface, which in general changes the idea of the brand, and of course opens more opportunities for Kazakhstanis (Landgrave, Kiryukov, 2014). OLX is a service for finding solutions, for finding answers to questions that have arisen, which makes life easier for people.

The problem of research is that rebranding and launching a new advertising company, considered as the liquidation of the old business, should lead to an increase in loyalty and expansion of the target audience, to strengthen the uniqueness of the brand, which, as a result, will make the brand more effective. It should be noted that a brand is not about how to advertise yourself brightly, but how consumers evaluate your behavior and fulfillment of promises.

Based on the rebranding of this company, we will be able to understand the effectiveness of the rebranding, why it was done, and, of course, the reasons themselves. But even now, the interface has become much better. The OLX company has been operating as a service for finding solutions for a rather long period, and therefore, to keep up with the current market development trends, they decided to rebrand, and what effect it had - we just find out thanks to our research.

Literature Review

Rebranding is a relatively new and rapidly developing direction in the theory of modern brand management (Kiryanova, Zyuzina, 2016). Interest in this topic is primarily due to the abundance of practical examples of rebranding implementation. For example, in the Kazakhstan market, rebranding affected companies operating in various sectors of the economy - railroad transportation (Kazakh Railways), universities (Narxoz), banks (ATF bank), FMCG (Aksay Nan), retail trade (Cash and carry) and others. Researchers agree in the interpretation of rebranding as ubiquitous, but at the same time risky, ambiguous in terms of results and difficult to implement (Leonov, 2019).

Indeed, rebranding results are often mixed. This judgment is confirmed in practice: despite the steadily growing number of companies that have implemented corporate rebranding, the level of errors (negative examples) remains disproportionately high (Kurilkina, 2018). Within the framework of the classical theory of brand management, brand equity is “assets associated with identifiers (name, brand name, symbol) that add value to a product or service”, is a key concept, and building brand equity is a determinant of effective and successful branding. From this point of view, rebranding, i.e. changing brand identifiers, is paradoxical, since it contradicts the classical concept of brand management. Corporate rebranding can not only increase, transfer, or create, but also destroy brand equity (Lolua, 2019).

Market orientation and the development of a strong brand of the company form unique competitive advantages that contribute to the growth of sales of the

company's products. At the same time, after more than 20 years of existence in a competitive environment, many domestic companies find their own brands in a stage of maturity and even decline. Strengthening the brand's position and keeping it in the maturity stage is the main task of brand managers, the solution of which can be achieved through corporate rebranding (Shadov, 2016).

Based on the performed theoretical analysis, we can conclude that that for many companies rebranding can really become effective solution to problems related to positioning and perception of the company itself or its brand. Combining comprehensive analysis problems with competent work on rebranding, companies can

significantly improve their position in the market, both from the financial side, and in terms of reputation, brand awareness by consumers. Rebranding is a marketing tool that allows companies keep up with the times, keep up with changing trends, while retaining their unique features.

Research question posed by the authors is rebranding had a positive effect on the company's activities and people's opinions?

Methodology

1. To explore secondary data, sources on the Internet were used, namely, scientific publications, the website of the company itself, as well as websites of web analytics (Be1.ru, 2020). We collected data about the company itself, the rebranding process, and the rebranding mechanism in the company. With the help of web analytics, the dynamics of site visits has been revealed since April, when the rebranding took place(Pr-cy. Online site analysis, 2020).
2. Quantitative research method - Poll. Used to get two types of information: from OLX users.
Sample:

The most accessible OLX users were selected for the survey of respondents. The sample consisted of 96 people. A statistical method was used to calculate the sample. The confidence level was chosen by 95%. The margin of error is 10%.

For the second survey, we used a snowball sample. When, from the first respondent, the numbers of friends who were most likely to be interviewed are taken. This is done to interview hard-to-reach groups, namely those belonging to the same professional group.

For an interview with OLX himself, we first compiled questions that we thought about for a long time, since they should be important for our research, to help prove or disprove the hypothesis, and then sent them to the mail, which is available on their official website (Marketing Media Review, 2020).

Results

From sources, we learned that the rebranding took 2 years, during which the company studied all the way the user interacts with the brand.

In general, OLX Group spent about $ 1 million in total on rebranding its service.

Starting in South Africa, rebranding for the first time in 2018, followed by Pakistan, India, Indonesia and all Latin American markets in 2019. 6 years later, in March 2020, OLX carried out a rebranding in the Kazakhstan market. Then it was held in European countries: Bulgaria, Romania, Poland, Ukraine, etc. In the OLX Customer Support Center, there are several articles in which the company answers rebranding questions (Parsesite, 2020).

They say that the company sought to freshen up the idea of the brand, to provide not only a new positioning, but also an updated design and interface. This was done to keep up with the times and improve the functionality of the product.

The company claims that in terms of technical characteristics, the rebranding has brought about the following advantages: simplicity, speed, convenience (Forbes, 2020).

OLX goes beyond the online ad service and prioritizes a renewed concept that offers Smart Choice opportunities that improve users' lives, make them easy and simple to enjoy.

Based on this concept, Design Studio has created a dynamic, confident, and energetic visual design system that expresses all the optimism and attitude that OLX has in common (Bashkirtsev, Nikishina, Yuditsky, 2012).

From the visual side, in the logo, it has become more dynamic and brighter. The specific concept behind the logo means that the company helps users make the right choices and shows a wide range of choices. The logo letters are now in a deep turquoise color on a blue background.

The update affected both the desktop version and on IOS and Android on mobile devices. You cannot revert to the previous design if users have already updated.

Studying the reactions of users from various sources on the Internet, a small part of them is unhappy with the rebranding and consider it unsuccessful, but profits and surveys indicate that the majority are satisfied with the changes that have taken place.

Prices for services in OLX, despite the rebranding, have not changed.

According to the data for September 2020, the number of visits is about 11 million. In April, when the rebranding was just taking place, the number of visits was 8 million. The dynamics of the growth of visits after the rebranding is clearly observed in August, when the number of visits was 13 million users.

There are approximately 14,000 unique visitors daily and 50,000 visits.

According to the Internet resource "Forbes Kazakhstan", the income of OLX kz for 2019 amounted to $ 21.88 million. And according to web analytics services, by 2020, the companies' income should be about $ 60 million. That is, the income will almost triple.

The service also allows you to estimate the loading speed of the OLX website. Thanks to this, we got to draw the following conclusions:

- speed of downloading from computers gives a good result - 1.5 sec. However, rendering large content takes 2.1 seconds. The delay time is 33 ms.
- the download speed through mobile devices has a poor result - 7.7 sec. It takes about 12 seconds to render the content, with a 1200ms delay.

This means that the work carried out, within the framework of rebranding, on functionality, design, content, is optimized and has a fairly good effect on the loading of the site, therefore, it has a favorable effect on the user experience.
As described above, we conducted two surveys. The first survey was for regular OLX users, and the second was conducted to find out the professional opinion of marketers and entrepreneurs.

As a result, we got 96 and 30 interviewed respondents in two surveys, respectively. To provide results, we use descriptive analysis of the responses received, or, more simply, descriptive analysis.

Most of the respondents to the first survey were between the ages of 18-25 (Figure 1) and the average family income from 200,000 - 500,000 tenge.

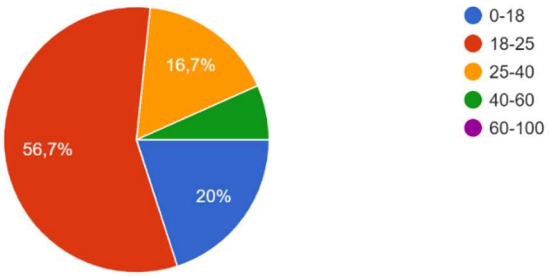

Figure 1. Question "What is your age?"
Note - compiled by the author

The interviewed respondents were pre-selected from among those who use the OLX application, but differed in the frequency of use, 60% rarely used the application, and 40% - on an ongoing basis (Figure 2).

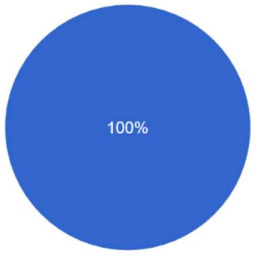

Figure 2. Question "Do you use OLX"
Note - compiled by the author

The survey was conducted in order to get an opinion on the changes in OLX, so it was appropriate to ask whether the respondents know what rebranding is. 83.3% - know what rebranding is and, accordingly, 16.7% - do not know, they included respondents under 18 years of age (Figure 3).

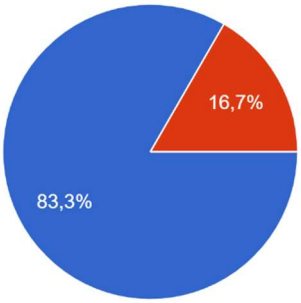

Figure 3. Question "Do you know what rebranding is"
Note - compiled by the author

When asked whether they liked using the application, 80% of the respondents put marks 5 and 4 (Figure 4).

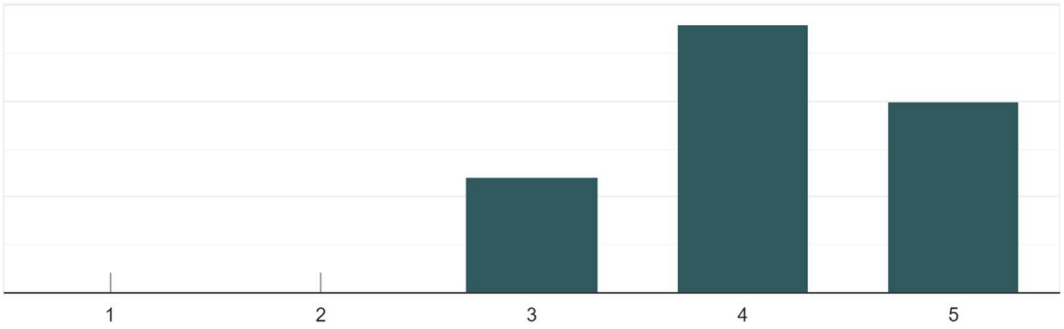

Figure 4. Question "Did you like using OLX before the changes"
Note - compiled by the author

So, the question was asked about the need for rebranding and about the goal. 80% - answered that the rebranding was necessary, and most of the respondents consider the goals to be “Increase profit” and “Increase coverage”. 50% of those surveyed believe that the rebranding affected the profit, 33.3% - the number of users, and the rest voted for the "time of use".

In addition to descriptive analysis, we carried out a correlation of questions - the answer to which was in the form of a scale from 1 to 5. The correlation was calculated in Excel. The following questions were taken:

Calculated the multiple regression equation: Y = 16– 2.311X1 + 2.441X2 + 0X3 + 0.036X4.

Increase X1 by 1 unit. rev. leads to a decrease in Y by an average of 2.311.

Magnification X2 by 1 unit. rev. leads to an increase in Y by an average of 2.441. Change X3 does not affect change Y.

Magnification X4 by 1 unit. rev. leads to an increase in Y by an average of 0.036.

According to the maximum correlation coefficient of 0.706, we can conclude that X2 influences Y as much as possible.

To prove the hypothesis, we took the last two questions "How do you think the rebranding has positively or negatively influenced the activities of OLX" from the polls and put the respondents' answers in the table. Most of the respondents in the two surveys chose the answer positively, which suggests that rebranding has had a positive impact in the eyes of consumers, similar to professional opinion.

The interview transcript, loaded into R software, and analyzed for content. For this, stop words (prepositions, conjunctions) were removed from the text, punctuation marks were removed, and a list of words that were repeated the most was compiled. (Table 1).

Table 1. Keywords in the R program

№	word	freq
1	olx	9
2	annexes	5
3	facilities	3
4	do	3
5	users	3
6	remained	3

7	services	3
8	the logo	3
9	rebranding	2
10	use of	2
Note - compiled by the author		

Also, based on the keywords in the R program, we compiled a word cloud (Figure 5).

Figure 5. Word cloud in R program
Note - compiled by the author

Discussion

Based on this, we found out what OLX wanted to achieve with the rebranding. OLX is redefining the online ad service concept and is committed to empowering people to make limitless decisions in an easy, simple, and comfortable way to improve their lives. Make an updated logo and interface design, improve the user experience. It opens more possibilities, understandable and accessible to everyone (Khan, 2013).

Renewed brand - providing smart solutions and helping the user in his task.

The platform allows users to complete online business processes in the most efficient way (Nedeljko, Kuzman, 2019). And companies need to be given such conditions in a particularly difficult time like now.

Thanks to the PR-PY service, we learned about the speed of launching the service and received positive results. This indicates that the company is working, as part of

the rebranding, to improve the technical component of its service, and provides speed and comfort, which favorably affects the user experience.

Recommendations

The study revealed the reasons why OLX rebranding. The practical orientation of this study is that the effectiveness of rebranding has been proven, companies in the market need to be afraid to experiment and update their brands (Tetiana, Oklander, 2015). Due to the growth of the online market, purchasing behavior is changing enormously, which entails the need for companies to keep up with the times and offer new solutions, while improving the old ones. Companies need to offer better terms for consumers by improving and updating the product and the concept of the company itself.

Companies need to be more sensitive to changes in the marketplace, monitor trends in consumer behavior and keep their finger on the pulse. Facilitate consumer interaction with your product by offering convenient solutions, as OLX did.

As a result of the study, the authors make the following recommendations:

- Strengthen SEO optimization of the site, for complex website promotion, since SEO is one of the channels of attracting traffic to the site. That is, the higher the position of OLX in the search results, the more conversions of visitors to the site.
- Develop an active plan for SMM promotions, since SMM is a way to drive traffic to the site. The use of advertising on social networks allows you to be closer to the audience and communicate with them, make announcements, conduct contests, etc. Therefore, it is worth paying great attention to maintaining the OLX corporate page on social networks. It is worth spending sufficient funds on targeted advertising, working with bloggers and influencers in social media. networks. The last blogger ad was posted and launched 3 years ago. At the moment it has 16 million views, which is quite a decent result.
- Work on ranking algorithms in the app in the AppStore and Play market, that is, keep track of the positions of the app in the app store. When you enter "ads" or other relevant words, OLX is in the 3rd position in the AppStore, and in the Play

Market it is in the 4th line. Therefore, it is necessary to carry out work to increase the position in the search so that more people see and install exactly OLX.

- Develop your own delivery service. For starters, OLX can develop a delivery system in the service for intracity deliveries, but eventually scale delivery across all cities and regions.

Conclusion

The market is a place where everything changes dynamically. What was relevant yesterday is outdated today. A company that wants to stay afloat must change in accordance with current trends. For this, the rebranding method is often used.

In other words, you need to keep all the best that was formed and implemented in the education of the target audience before the rebranding. It is important to preserve the elements of the brand perceived by consumers as the strengths and advantages of the brand in comparison with competitors.

Based on the analysis carried out, we can conclude that for many companies, rebranding can really be an effective solution to the problems associated with the positioning and perception of the company itself or its brand. Combining a comprehensive analysis of the problems that have arisen with competent work on rebranding, companies can significantly improve their position in the market, both from the financial side and in terms of reputation, brand awareness by consumers. Rebranding acts as a marketing tool that allows the company to keep pace with the times, keep up with changing trends, while retaining its unique features.

Thus, rebranding, ensuring the sustainable further development of the brand, allows it to extend its life, bringing the brand to a qualitatively higher level in terms of its ability to more fully meet the changing needs of target audiences.

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Projection of Deming Principles to the Kazakhstani Higher School

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Abstract

In the conditions of emerging competition, the consumer (applicant) gets the opportunity to consciously and responsibly choose the necessary educational products from a huge list of similar services, and an institution that produces low-quality educational services that does not suit the modern consumer increasingly finds itself without sales markets and means for existence and development.

The main provisions of the quality management philosophy, which were produced by E. Deming, and they have found mass application and confirmation of high efficiency. A brief description of these provisions helps to draw attention to the main thing in the philosophy of quality management and the importance of its practical application. This philosophy is universal and suitable for not only the organizations or industries and administrative services, but also they are applicable to the service sector, primarily in education field.

The article presents a thorough analysis of the essence and the content of 14 quality management principles created by Professor E. Deming, functioning in relation to the conditions of the Kazakhstani system of higher and postgraduate education. The article also presents the QMS based on the Shuhart-Deming cycle and its' effectiveness in quality management practical solutions. It investigates relevance and significance of the problem with a due regard to the influence of modern university external and internal environment. It is concluded that it is necessary to simultaneously use these interrelated Deming principles, only after deep understanding and adaptation of their content to the specifics, organizational culture and management capabilities of each university.

Key words: principles, processes, systems, management, quality, Deming, Shewhart-Deming cycle management, ISO standards, university, higher education.

Introduction

William Edwards Deming is an eminent American scientist, the founder of the applied science of “quality management”, the author of the theory of a systems approach to quality management, deep knowledge, 14 principles of quality management, chain reaction, PDSA cycle, 5 “fatal diseases” of US companies, etc., which are the basis of international standards, such as ISO 9000, and are successfully used by effective companies in developed countries, to ensure their competitiveness and sustainable development. He is deservedly considered the leader of the Japanese “miracle”, for his contribution to the development of its economy in 1950-1980, “Revolutionary of capitalism”, “Pioneer of quality”, and the founder of Sony Akio Morito (Morito, 1993) called him “The patron saint of quality.”

The principles of E. Deming's management aimed at radically changing Western management are relevant to the Kazakhstani Higher Education, because according to the President of the Republic of Kazakhstan N.A. Nazarbayev, "We should adopt the half-century experience of Western countries in quality management in the shortest time, as soon as possible". Quality management in education plays a special role in the transition to the informational society, which is due to two factors circumstances (Dyatlova et.al, 2007).

Firstly, educational organizations act as the primary link in which future specialists, their professional thinking, principles and approaches to solving modern business problems are forming. Education is a unique institution with the ability to replicate its internal institutional rules for economic life as a whole. From these positions, it is important to educational organizations to be advanced, "exemplary" in terms of the quality management systems implementation, in demand at modern enterprises. It is a macro-level factor, which is regulated by the state structures efforts at the governmental and regional levels, industry professional associations and unions.

Secondly, the development of market relations in our country, non-governmental educational organizations emergence which have exacerbated competition in the education system. Due to the issues related to society and economy transformation, the quality level of educational services provided in Kazakhstan has decreased. As a result, it is directly affected graduates of educational institutions. Therefore, educational institutions need to look for ways to create and develop competitive advantages, and above all to improve provided educational services quality. Here we are dealing with a micro-level factor, which is managed at the higher educational institution level.

Thus, there is a need of implementing quality management systems, which is connected with the main aim of modern Kazakhstan education— to improve the quality of educational services in order to meet the society needs and train specialists who meet the modern world requirements for economic development. This circumstance determines the relevance of research related to the construction and development of management systems in Kazakhstani Higher School based on quality management systems (QMS).

The causes of the current crisis in the field of higher education in Kazakhstan are different. At the same time, a prerequisite for getting out of this situation is the production of only competitive products. Of course, not all universities will be able to withstand competition. Moreover, it is important to recognize this at all levels of government. However, it is beneficial for the society of any country that its' universities work successfully. Therefore, the experience of the best universities was analyzed and enriched as a result of the many outstanding specialists research, primarily American, and later Japan and other countries.

Research hypothesis: if we use the 14 principles of quality management and Shewhart-Deming cycle formulated by E. Deming in the Kazakh system of higher and postgraduate education conditions, the higher education quality may increase.

Literature Review

The main postulates of modern quality management by E. Deming were formulated more than 60 years ago in his famous 14 principles - the basis of the evolutionary transformation of enterprises to modern management models, such as QMS, TQM, kaizen, kairyo, lean manufacturing, six sigma, kanban, 20 keys, etc. The text of these principles was continuously perfected by E. Deming for 40-45 years; therefore, the scientific literature contains more than 10 variants of their interpretation (Deming, 2019).

The principles of E. Deming that enable the constant improvement of the quality of products, improve the manageability of the enterprise while reducing costs, are relevant to this day for Kazakhstani management, because in his Letter to the people of Kazakhstan dated January 2017, the first President Nazarbayev N.A., stressing the need to ensure the transformation of state holdings, emphasizes that "The quality of management and corporate governance needs to be brought up to the international level" (Nazarbayev, 2017).

In modern conditions, the quality of higher education is one of the important characteristics of its competitiveness. One of the priority tasks in solving this problem, adopted by the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025, is the transformation of the education management system at all levels. In addition, the modernization of higher education and science in the country in the context of global trends cannot be imagined without the scaled use of the principles of the named management (Resolution, 2019). Therefore, the article describes the 14 principles of E. Deming with his comments at the time of the publication of the book "Overcoming the Crisis" (1982), as well as my version of the explanations, first adapted in relation to the Kazakhstani system of higher education, reflecting the modern vision of the problem in a global digitalization of the world economy, a new understanding of the context of universities, the transition of certified educational institutions of the country from 2018 to new versions of ST RK ISO 9001-2016 and ST RK ISO 9000-2016 (Management systems, 2016).

It should be noted that initially the methods of quality management became widespread in the industry. Now according to a series of international ISO standards 9000 quality control philosophy and standards of its provision are used in providing services in health care, tourism, education etc.

Until mid of 1995 only 4 foreign educational institutions were certified in accordance with the ISO 9000 standard requirements, at the present time work on the quality system elements implementation and the quality guidelines for educational organizations creation are being conducted in almost all countries of Europe, USA and Kazakhstan as well (Puzankov et.al ., 1999). The development and implementation of quality management systems in the universities of our country were "spurred" by decisions related to the Bologna process. The choice of development concepts based on the creation and improvement of the QMS particularly important for Kazakhstani higher schools. While developing the concept of the education quality, it is necessary to answer the following questions: What should be understood by the education quality? What role should the university's quality system play in solving the overall task of improving the education level? How such system can be built?

The construction of the university's QMS has important differences from similar systems developed and implemented in organizations or other industries and fields of activity (Petrova, 2001). This is because organizations engaged in the educational services provision have a number of distinctive characteristics:

1. For example, industrial enterprises, they do not produce materialized products.

The consumption of services begins immediately during their production. This requires increased demands on education quality, since it is either extremely difficult or impossible to correct the "defects" of education.

2. In organizations engaged in the provision of educational services, the absolute majority of staff (faculty and educational staff) directly contacts the consumer (students). In the process of rendering the service, the consumer perceives and evaluates academic level, professional knowledge, and social skills of educational organization employees at the subconscious level and according to many other

parameters. This affects the integral consumer assessment of the education quality, making it stable and difficult to change in a short period due to efforts aimed only at improving the education quality process itself.

3. The boundaries of the services provided by the university vary in a wide range. They can be reorganized based on a standard educational or curriculum. In many cases services are provided based on an agreement between an educational organization and a consumer (governmental or private), which determines the need for integrated quality management.

4. Since specialists (including teachers, department directors) of an educational organization have a certain freedom in the development and implementation of educational programs and curricula, their personal competence is important for obtaining required results. On the other hand, it can have a decisive influence on the education quality. Finally, it is quality management that is required. Any other approach professed by the university may be ineffective.

5. The management of the educational services implementation has a nature similar to project management. Under these conditions, the stages of obtaining and evaluating intermediate results should be defined. Individual business processes should be clearly identified, recorded, and their contribution to quality education should be evaluated.

To give a new quality to the educational process and its products not just new systems should be implemented, but a set of management technologies supported by appropriate tools.

Its composition depends on the existing level of university development as a whole and on the level of management main business processes. Taking into account the tightening competition in the educational market should ensure not only the promotion of the university to the next level of development, but also create prerequisites for further growth and improvement of the educational activities quality.

What exactly should the educational quality management system include in, and how exactly should it function? According to State Educational Standard ISO

9000:2001 (the official translation of the international quality standard ISO 9001:2000) the quality management system — is a system designed to develop policies, goals and achieve these goals for the organizational quality management improvement. Such a system is a combination of the university organizational structure, documentation, processes and resources required to carry out general management and education quality guidance.

Based on the above-mentioned features of the educational services provision and the implementation of QMS in the management, it is advisable to distinguish the system individual stages, which we are considering.

The first stage of QMS construction is analytical. Its content is the study about the construction and functioning of the system being created. Here semantic, conceptual modeling of the system being developed is carried out. Concepts, principles, standard procedures, etc. of quality management are studied and adapted according to the conditions of a particular university. There is also an analysis of QMS already implemented in other universities and, possibly, at industrial enterprises. Its results is a clearly formulated and approved by the majority of university leaders plan for the QMS creation and functioning, including a description of its goals, working principles and main tasks.

The second stage of QMS construction is a project. Its main content consists of building a system model, which is based on the concepts of "system quality" and "result quality".

It is based, on the principles of quality management, and on the specific methods of higher educational institution work. The nodal elements of the model are the processes description, their regulation order, indicators and evaluation criteria systems, methods and procedures for evaluating business processes, the quality of which must be ensured.

The third stage of the QMS construction is a working one, when theoretical schemes and quality management models of the university's activities is implementing, it is the quality management system practical deployment.

As follows from the description of the QMS construction stages, the most important of them is the design stage. The success of QMS design largely depends on the correctness business processes allocated within educational institution. It is customary to define the following conditions, which are necessary for building a university processes system:

consideration of activities within the organization from the consumer's point of view; implementation of the system "from top to bottom";

providing optimal connections between the functions of the organization's divisions from the client's point of view;

transformation input data as a result of the process operations into output data execution which implies the use of various resources (Nikitin, 2002).

The quality of educational activities results, which is the purpose of creating a QMS, is determined by university graduates knowledge, skills and abilities, their active civic position, level of culture and morality. High quality of the activity results can be achieved only with a sufficient quality of the educational process, which is determined by its content and consumer orientation, and on the organization and security level.

All this suggests the need for active deterministic interactions between and within processes. To model complex process systems when building a QMS in our country and abroad, it is customary to use a methodology based on Shewhart-Deming cycle or PDCA (Shewhart, 1939). It allows determining the processes sequence and key aspects of their interactions, it can be used at different levels of leadership and management.

The PDCA (Plan-Do-Check-Act) Deming cycle, which is sometimes called "Deming Cycle", was developed by the William Edwards Deming in the 50s of the last century. Deming himself called his model the "Shewhart Cycle" because it was based on the ideas of his mentor Walter Shewhart.

Deming wanted to develop a reliable algorithm for determining the reasons why the quality of goods and services may not meet customer expectations. The solution

he created helps companies to make assumptions about the necessary changes, and then check their guesses during a continuous repeating cycle of processes.

The Shewhart -Deming cycle consists of four stages: P - plan, D - do, C - check, A-act (as a result, it turns out abbreviation PDCA). This rather simple and effective approach to quality management, which is also appropriate to use in the QMS being created. For this purpose, I will highlight the main processes (processes of the first level) of the educational organization activity (Lapidus, 2000). These processes include "Planning", "Resource Management", "Business Processes", "Measurement, Analysis and Improvement", "Management analysis".

The system of these processes is cyclic, when the output of one process is simultaneously the input of the next one. According to this, the output of the "Management Analysis" process is the input of the "Planning" process, but at a new stage in the organization quality development. "Planning" and "Management Analysis" are considered as separate due to the fact that they give completely different results and perform different functions. "Measurement, analysis and improvement" and "Management analysis" are considered also separately, due to the peculiarities of the university hierarchical management. Managers of different levels are responsible for these processes, where the output of the first one is the input of the second one.

Methodology

The research results are based on the observations of the authors, based on more than twenty-years of practical experience in the development and management of the university's QMS in the positions of vice-rector for educational work and the head of the management systems department of WKATU named after Zhangir Khan (Uralsk) in 2002-2011, as well as experience in teaching in the disciplines “Management”, “Quality Management Systems” and “Quality Management in the Service Sector” at this university and at the University of International Business (Almaty). The work used research methods such as observation, collection, comparison, description, analysis, generalization, evaluation, synthesis and

description of the essence and mechanism of operation of various Deming principles, which have been practiced in certified firms and companies over the past 15-20 years, based on materials from domestic and foreign publications.

Results and Discussion

Correlating the identified processes with the elements the Shewhart-Deming cycle: "Planning" is directly related to the stage of the Plan cycle", "Resource Management" and "Business Processes" correspond to the Do standard, "Measurement, analysis and improvement" and "Management analysis" are relevant to the Check stage, the specificity of the university cycle is that between "Management Analysis" and "Planning" there should be an Act stage, since it is advisable to carry out the impact within a large system through planning based on a thorough analysis and data synthesis. The analysis shows that the process approach to the construction of the university QMS using the Shewhart-Deming cycle has a certain specificity due to the characteristics of the processes of the educational organization.

According to V. S. Sobolev and S. A. Stepanov, the assessment (quality) of the university's activities excellent level should be carried out according to the following six "dimensions":

1. The degree of customer orientation.
2. The degree of the applied approach consistency.
3. The degree of the applied approach prevalence by management levels, various sub-divisions and processes.
4. The degree of the university staff involvement in the relevant processes.
5. The degree of processes documentation.
6. The degree of focus on the inconsistencies prevention and continuous improvement.

Thus, the QMS based on the Shewhart-Deming cycle makes it possible to achieve an increase in the degree of at least more than four of the above "dimensions" (2,3,5 and 6), which ultimately allows us to talk about the growth of the quality of both processes and the system itself as a whole.

The main work of the university with the consumer of educational services takes place within the "Business processes" element of the cycle modified. Therefore, it is necessary to consider these processes in more detail, as a unique element of the system, which sets the other processes in customer orientation. The most important results of the universities' activities are educational services, scientific and technical products, integrated products based on scientific and technical products and educational services, educational and methodological products (Katchalov, 2001). Publishing products should be added to this list, and then the listed results will correspond to the directions of the university's work. Thus, the main directions of the university's work, in my opinion, should be considered educational, research, methodological and publishing activities. From the educational services consumer perspective, educational activities consisting in the provision of appropriate services as a priority. Consequently, it is advisable to consider the full life cycle of the educational service. To determine the interaction between processes the Shewhart-Deming cycle was used and the classic "quality loop". The results of analysis are presented in Figure 1.

The full life cycle of an educational service consists of processes divided into three main blocks. Block "A" performs the function of planning an educational service. Block "B" displays the activity of providing educational services and the direct educational process. Block "C" performs the controlling function. Basic interactions are carried out between blocks "B" and "C" by the impact of accumulated and analyzed information on the planning and service development.

Below we will consider the principles of Deming applicable to improving the education quality in our country.

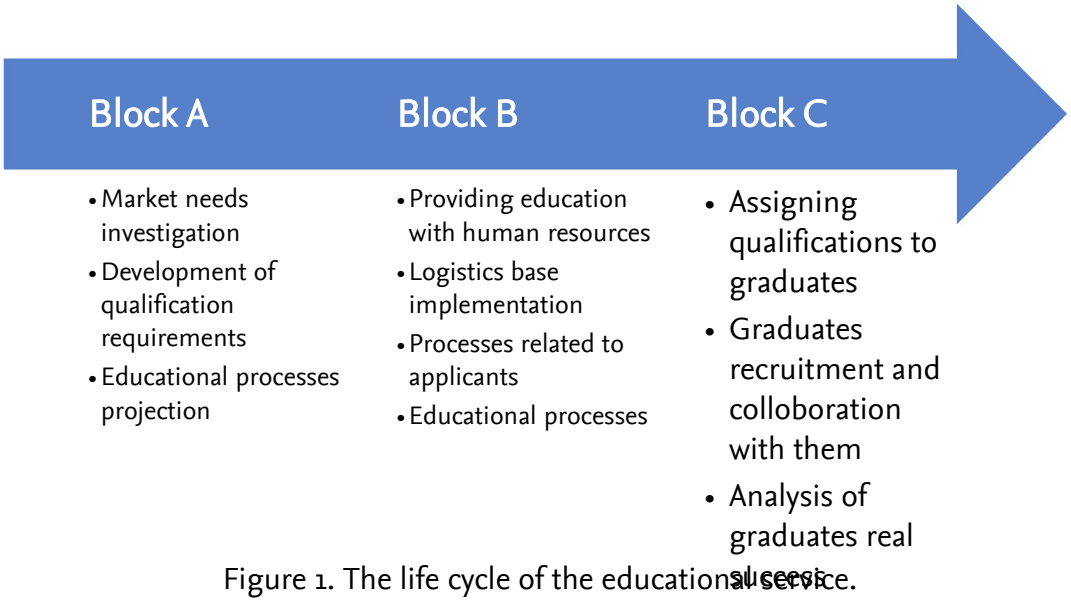

Figure 1. The life cycle of the educational service.

1. *"Strive for consistency of goals. Make it your constant goal to continuously improve the quality of products and services in order to become a competitive company, keep the business and provide people with jobs."*

According to Deming, "There is no system without a goal" (Adler, 2018). Hence, the implementation of the first principle means the need for each university to develop and fulfill its own mission, vision, long-term and medium-term development goals, which serve as a guideline for the development of annual plans - indicators of current activities. The principle guides the management of the university to ensure continuous improvement of the quality of educational and scientific services, in fact, demonstrating the desire to continuously improve the corporate culture, and not to deal with it from time to time. You cannot assume that once you find the right solution, you can use it forever. According to the PDSA, quality management is similar to cycling; you should pedal continuously so as not to fall and not go broke.

Therefore, the principle of constancy of goals for the leadership of the university means:

- to establish, through personal example, a corporate culture of commitment to the constancy of positive change based on the development and implementation of its strategic and tactical goals, values and guiding principles;

- not get carried away with short-term goals, profits, quick results, current and long-standing problems, to the detriment of long-term goals of improving processes, i.e. you should keep a course for transformation;
- to be ahead of clients (students) - planning and satisfying not only their present, but also future needs in 10 or more years;
- management of personnel and students only by orders is not effective, but more ethically - through the setting of measurable and achievable goals that inspire and unite the team;
- a teacher, employee and student who has realized the goal will move towards it himself.

2. *"Adopt a new management philosophy. We are living in a new economic era started in Japan. One can no longer accept the generally accepted level of errors and defects in work. A transformation of Western management style is needed to stop the continuing decline of the economy."*

The principle is basic and the most difficult to implement, since all the other 13 can be mastered only if it is fulfilled. The essence of the principle of traditional "carrot and stick" management has exhausted its capabilities, in order to achieve positive changes adequate to the requirements of the external environment, the rector should master and implement a new management philosophy of a human-centered approach to management. At the same time, he should radically change the management style by 180 degrees, in the form of:

- refusal to perceive people as devices for fulfilling orders from their superiors, because each of them has his own opinion, experience and feelings and requires a delicate approach to himself, based on respect and cooperation;
- rejection of the tradition of searching for and punishing those responsible;
- the establishment of the principle of leadership and focus on consumer needs.

3. *"Eliminate the need for mass inspection as a way to achieve quality by building "quality" into products."*

Unfortunately, in the minds of many leaders, "the words "quality" and "control" coexist in about the same way as the words "sausages" and "mustard" - somehow I don't want to use one without the other" (Mazur, 2016). However, the quality of educational and scientific services of the university does not depend on the total control of educational and pedagogical activities of the teaching staff and students,

because quality (good and bad) is already contained in the service, which is on the conveyor. Hence, control is a belated measure, because the educational process has started. Mass control of the work of subordinates is a laborious process, it causes fear, teaching staff and students feel suspicious, do not show initiative in their work, they are waiting for commands from above. Therefore, the management of the university should "build in" quality:

- in the description of processes and services at the stage of designing the content of the "competence" model of innovative education, in the development of educational programs for bachelor's, master's, doctoral studies;
- into the minds of teachers and students in the form of a gene of "morality" on the basis of improving the elements of credit and distance learning technology, personality-oriented pedagogy of cooperation.

Quality control of educational services should be transformed into the process of internal audits of the QMS, i.e. move from control to process management.

4. "Stop shopping for the cheapest price. End the practice of selecting suppliers based on the price of their products alone. Keep your total cost to a minimum and strive to have one supplier for each component."

It follows from the principle that it is impossible to staff and infrastructure of the university on cheap resources, because saving on them will inevitably result in additional costs for correcting defects (the avaricious pays twice). Therefore, universities should continuously invest in the development of human resources and the renewal of infrastructure that meets the best international standards. This will create the preconditions for the future training of competitive specialists of a new formation at the level of international educational standards, both in terms of competence indicators and in terms of the cost of training.

5. "Continuously improve every process. Continuously improve the planning, production and service systems to improve every process of the company."

Deming recommends creating a managed system for continuous improvement of all core processes, linking them with each other and the functions of the owner-processes, i.e. heads of key departments (7 +/- 2 people). They must manage, and therefore design, create, implement and continuously improve their business

processes by analyzing their condition and identifying the causes of potential problems, taking into account the needs of consumers, stakeholders and eliminating them with proactive actions before they occur.

6. "Create an in-the-workplace training system - TWI program. Put into practice modern methods of training, including managers of all levels, in order to better use the opportunities of each of them."

The essence of the postulate is that quality management is first taught by the management of the university - external consultants, and then all personnel are trained by their immediate supervisors in the workplace, continuously through mentoring and practical activity on the personal example of improving processes and respecting subordinates. The costs of training AUP, CEP and teaching staff to perform their official duties are not costs, but an investment in the future of the university (Moldashev, 2019). Thus, research by scientists has established that every dollar invested in vocational education returns 40 dollars to the state's GDP!

7. "Establish 'leadership' as a way of working for managers at all levels. Managers at all levels must help employees do their best, be accountable for quality results, and become leaders in improving company performance."

The principle guides leaders of all levels to transform into leaders, because they are not supervisors, but are obliged to systematically improve the quality of the main processes of the university and donate to their wards creative experience and knowledge of humanistic management through mentoring in the role of a coach, mentor and psychologist (Deming, 2019). Unfortunately, the institution of leadership in Kazakhstani management is not always encouraged, but suppressed. Most rectors believe that a university should have one leader. But, according to Deming, the "leadership" of managers at all levels is the foundation of a comprehensive motivation for team and free activity of all personnel, a trigger mechanism for mastering a new management philosophy, leading to an improvement in the corporate culture of the team.

8. "Avoid the atmosphere of fear. Eliminate the atmosphere of fear so that everyone can work more productively for the good of the company."

Deming recommends managing staff based on leadership, mutual respect, trust, cooperation, freedom of discussion and delegation of authority in order to liberate and open up the inner spiritual world of people, because fear and threats of job loss, control, criticism and humiliation of an employee by management destroy their dignity and motivation for effective work, leads to concealment of problems, offended obedience, evasion of responsibility, exaggerated numbers, mutual responsibility, etc. Therefore, it is necessary to abandon the administrative approach in the relationship between management and the individual, teaching staff and students, from the tradition of searching and punishing the guilty, and turns the management process to a person on a motivational basis, identify and eliminate the reasons causing the system failure. The teaching staff and employees should be encouraged for identifying inconsistencies, defects and complaints from consumers, and inconsistencies should be perceived as invaluable experience, "points of growth" and self-cleaning of the university. According to this principle, it was not in vain that E. Deming once wrote: “New ideas are generated by people who owe nothing to anyone and are accountable only to themselves” (Niv, 2005).

9. *“Break down barriers between departments. Researchers, developers, manufacturing, commercial and administrative representatives must work in teams to jointly solve problems with products and services.”*

In the interests of the common cause of the team, it is necessary to eliminate barriers or dissociation between departments and achieve work in a single team of employees of various structures of the university using the effect of synergy (1 + 1> 2), mutual support, a sense of community, complementing and compensating for each other's weaknesses on the basis of a systematic approach to management, spiritual community and management of cooperation, instead of management based on internal competition, conflicts.

10. *“Give up empty slogans and appeals. Avoid using slogans to employees calling for zero flaws and elevated productivity. They provoke opposition, because low quality and productivity of labor are generated by the system, and their solution is beyond the competence of an employee.”*

Obsessive admonitions, advice and calls from above to work well, not supported by resources, cause hidden negative emotions of teaching staff and students, because the low quality of educational and scientific services almost does not depend on the performers, and 98% depends on the initially improperly created management system for the educational and scientific process, i.e. the problem is systemic. The unreasonable slogans at the meetings show the desire of the management to shift the responsibility for poor quality onto the performers. Therefore, from the point of view of Deming, the university administration should first establish clear rules of the game, an action plan, quality standards and goals, a system of training, motivation and involvement of personnel and students in quality management, the procedure for resource provision, i.e. create your own system, mechanism and management processes, and only then require their implementation.

11. *"Eliminate arbitrary numeric norms and assignments. Eliminate the practice of issuing randomly set quantitative assignments to employees and managers, since. their achievement becomes more important than customer satisfaction and is achieved at the cost of quality reduction".*

In accordance with the thesis, the management of the university only in terms of quantitative indicators and ratings, if their implementation does not depend on the performers, and the norms are overestimated and unattainable, it humiliates people, suppresses their initiative. The pursuit of digital indicators leads to subscripts, distortion of facts, percentage obsession, window dressing and lowering of education quality standards. Therefore, the management of the university should abandon management only on the basis of "dry numbers", strengthening the expert assessment of the activities of structural units on the basis of knowing the essence of things, optimizing processes, agreeing with performers and formulating measurable goals, finding compromises between "doing a lot" and "doing OK".

12. *"Give employees the opportunity to be proud of their work. Remove barriers that prevent people in your organization from being proud of their work. This means refusal from annual personnel certification in terms of quantitative indicators".*

The administration is obliged to instill in teachers, staff and students a sense of professional pride in the university academic community and love for Alma Mater,

based on the creation of an atmosphere of mutual respect, trust, support, recognition of merits and skill of any of them. In this case, they are proud of their university and strive to improve the quality of their activities. According to Deming, it is necessary to abandon the annual certification and ranking of personnel according to formal indicators, and create conditions for joint educational and cognitive activities of teaching staff and students, when their cooperation would satisfy the interests of both parties.

13. "Encourage the pursuit of education. Implement an extensive self-education program for all employees. Knowledge is the source of success in achieving competitiveness."

The principle is a continuation and development of the 6th, but the aim is higher here - for Deming is talking not just about improving the qualifications of personnel, but about creating conditions for lifelong learning and improving the level of intelligence of all personnel. The competitiveness of the university is the fruit of the implementation of new knowledge, competencies and know-how of all personnel, therefore their training in managerial and pedagogical innovations should be massive, advanced and systematic (throughout life), since education does not reach the saturation point and becomes obsolete every 2-3 years. It is important to create an atmosphere of aspiration of all teachers, staff and students for regular self-education without coercion, a cult of new knowledge and professional excellence, encourage and inspire them with career advancement, as well as "... create a" learning organization "and an intra-university knowledge management system for involvement in the process of self-education of all personnel and all students, which is cheaper, profitable and will lead it to long-term success, and formal education will only help him survive " (Astrakhansky, 1993).

14. "Hold top management accountable for solving quality problems in the organization. Clearly define top management's unwavering commitment to continuous quality and performance improvement."

The meaning of the principle is that quality begins not at the department, but at the very top of team management. The rector of the university should take personal responsibility to consumers and the state for the creation and continuous improvement of a really functioning QMS or TQM, not to delegate them to

subordinates, but to personify positive changes in the team by personal example of adherence to all the principles set out above. Only with such a position of top management, each teacher, employee and student can be motivated and voluntarily involved in systemic transformations, take responsibility and initiative in solving the problems of the quality of educational and scientific services of the university and become a true leader in his workplace.

Conclusion

The analysis provided allows concluding that the usage of the Shewhart-Deming cycle in the university's QMS construction facilitates the practical solution of process allocation and their decomposition issues by constructing the main blocks and distributing the intended processes within them. It allows concentrating efforts and resources on key processes that have the greatest impact on results, as well as ensuring total quality achievements. It is essential that the system built using the Shewhart-Deming cycle contains principles and mechanisms continuous improvement. At the same time, the management of the university is informed in advance about the "bottlenecks" in quality management that arise "at the junctions" of the blocks and processes allocated.

The author's development of approaches to the university QMS construction, presented in the article, is not limited to theoretical constructions. The third, working, stage of building the QMS was also passed observing private universities in Almaty city.

The practical implementation of the QMS in the management of Kazakhstani educational organizations has revealed a number of problems caused by the specifics of educational activities:

- higher education is characterized by a duality of organizational structure (relatively independent implementation of administrative, economic and educational functions), which makes it difficult to form an integral QMS;
- in many universities there are "centrifugal" tendencies, when "loyalty" to an academic discipline or to their department (faculty) of teaching the composition prevails does not

contribute to activities in the interests of the university as a whole, which causes damage the quality of educational activities;

- universities often focus on the achievements of individual employees (researchers and teachers), the status, promotions and salary increase, as a rule, are based on the assessment of the activities and results of an individual, not a group of employees, which contradicts the integrated quality ideology.

In order to solve the listed issues, in my opinion it is necessary to concentrate the main efforts aimed at development and improvement QMS of educational organizations.

In summary, the analysis and generalization of Deming's 14 principles in relation to the domestic higher education shows that they are common universal philosophical imperatives for the management of universities (what to do?), but they do not represent ready-made recipes and mechanisms for intra-university management (how to do?). Many of them, at the first cursory acquaintance, seem absurd and unacceptable. Indeed, an average university leader with a clear mind and solid memory is very unlikely to agree with such creative Deming's views as, rejection of: mass control of students, staff and teachers, numerical management, the tradition of finding and punishing the guilty, advice and edification from above, etc. Therefore, they should be applied in practice only after careful understanding them as part of a single interconnected system and adaptation of their content to the specifics, culture and management capabilities of each university. Moreover, the connecting link of these principles is not the prioritization of the quality of educational, scientific and technical services, but the philosophy of morality, elementary respect and trust in employees, students and their teaching activities... The managers' core goal is not in the adoption of all 14 principles, but in forming a strong corporate culture that would be optimally compatible with them. Therefore, the above-stated principles do not represent a new project of effective management, but a permanent process and philosophy of systemic improvement of the management culture at a university.

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