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Segmentation of Airline Market in the GCC Region: Profiling Business Customers Using Low Cost and Full Service Carriers

ABSTRACT

Aims: This paper was designed to identify the differences and similarities between business travelers using low-cost carriers (LCCs) and full-service carriers (FSCs) in the GCC region. Research on the characteristics of business travelers, who are seen as an important market segment for both low-cost and full-service airlines, is sparse and anecdotal at best. This paper represents an initial effort at developing profiles of business travelers using LCCs and FSCs.

Study Design: Research paper based on survey data.

Methodology: The study employed a survey research design and collected data on business travelers using LCCs and FSCs by means of a brief questionnaire. Data analysis was conducted using the SPSS software package. A combination of nonparametric tests such as Chi Square and T-Test for two independent samples was employed to assess the extent of differences and similarities between the LCC and FSC customer samples.

Findings: The findings lend partial support to the hypothesis that short haul business travelers using LCCs form a fairly distinct market segment from business travelers using FSCs in the GCC region. The two samples revealed substantial differences in terms of organizational resources, respondents' demographic characteristics, and perception of different service dimensions. While both

groups displayed similar level of service satisfaction, they showed significant differences with respect to other service elements such as ticket price, service quality, in-flight service, comfort, frequent flyer programs and having access to business lounge.

Conclusion: The study reveals several differences and similarities between business people traveling by low-cost and full-service airlines in the GCC region. The data presented in this study is timely and strategically significant and may guide the marketing efforts of airlines using different service models.

Keywords: low-cost-carriers; network airlines; business travelers; segmentation; airline market; GCC region.

1. INTRODUCTION

In recent years, the GCC region has witnessed a marked increase in the number of low-cost carriers (LCCs) serving short-haul routes within the region. Following the early success of Air Arabia, launched in 2003 by the government of Sharjah, several other Gulf Cooperation Council (GCC) countries have introduced LCCs to tap into this emerging market. Other major LCCs based in GCC that appeared over the past decade include Flydubai (Dubai), RAK Air (Ras Al Khaimah), Nas Air (Saudi Arabia), Jazeera Airways (Kuwait), and Bahrain Air (Bahrain).

The growing popularity of LCCs has posed a stiff competition to full-service, network carriers in the Gulf region. In a short period of time, LCCs in the region have acquired nearly 7 percent of the market share [1]. It is not clear, however, whether LCCs have attracted most of their passengers from the legacy airlines or they have created a new market segment comprising people who previously used other means of transportation. The general opinion is that LCCs have attracted a fairly large number of price-sensitive travelers from the legacy airlines, while at the same time, have encouraged several new travelers to benefit from their low fares and reliable service [2].

The LCCs in the GCC region are presently catering to the needs of a wide variety of passengers, including in particular the expatriate workers traveling to nearby countries to renew their residence visas, leisure travelers, students, and business travelers. The network airlines have mostly concentrated on leisure and business travel segments [3], offering occasional discounts to attract low-income expatriates. While it

is generally recognized that the traditional target markets for both network airlines and LCCs are changing [4,5,6], a more precise assessment of the characteristics of business travelers has yet to be made in the context of the Gulf region.

In view of the changes taking place in the airline market, it seems strategically important to identify the characteristics of business passengers using airlines offering different product elements. Both FSCs and LCCs should find the outcome of this research effort useful to enhance their understanding of different market segments and, accordingly, develop products to effectively serve the needs of each segment. The FSCs need this information to assess whether they are offering a proper product mix and a competitive pricing structure to keep their current customers as well as attract new ones. Similarly, the LCCs need this information to determine whether they can benefit by more actively targeting the business travelers [7,8,9].

A better understanding of segmentation in the GCC airline industry takes on special significance in the current environment surrounding the airline business marked by intense competition and uncertainty [3,10,11,12]. Unfortunately, the segmentation issue in the airline business has not received the research attention it merits [13]. The present study fills this research gap by means of a systematic comparison of business travelers using network and low-cost carriers on a set of important demographic, behavioral, and attitudinal characteristics in the context of GCC countries.

2. FULL SERVICE AND LOW COST AIRLINES IN THE GULF REGION

With a population of some 40 million people, the GCC region provides a good-sized market for both the FSCs and LCCs. A large proportion of this population consists of expatriate workers, mostly coming from other Arab countries, South Asia and China. Their back-home destinations are approximately within 2 to 4-hour reach from most GCC countries and thus make a perfect short-haul market. In fact, the size and growth potential of this market served as a major impetus for the operators of LCCs to develop the low-cost service [1,2]. As noted above, the LCCs have primarily targeted low-income passengers including expats visiting their families on annual holiday trips or making a short exit to a neighboring country to meet visa-change requirements, and those traveling for leisure and business purposes. The success that some LCCs have achieved in this market in a short period of time has put considerable pressures on the

legacy airlines to review their target market, price structure and the products they offer and reposition them in the expanding GCC travel market [1,6]. Likewise, the relationship between airports and airlines are changing in most countries in that the airports have come under pressure to cut their operating fees for LCCs to allow them to maintain their cost structure [14].

Leading network airlines such as Emirates and Qatar Airways now more actively stress service quality, reliability, business lounges, frequent flyers programs, and direct links with other airlines and prestigious hotels in their promotion programs. To avoid head-on competition with some established airlines in the region, Etihad Airways, for instance, has positioned itself as a non-legacy, affordable airline. In 2010, the Emirate of Ras Al Khaimah launched a new airline service, RAK Airways with an apparent focus on the best-cost service model. In this growing competition, LCCs continue to build their image as a much-needed service in the region to meet the travel needs of common people looking for cheap, no frill travel. With rapid growth in the market share of LCCs, most airlines in the GCC region must carefully delineate their market segments to gain competitive advantage with specific travel packages.

With their initial success, LCCs have begun to take active interest in certain specific segments such as the business travelers that have been historically served by the full-service, legacy airlines. Some preliminary evidence suggests that LCCs in the GCC region are gaining some ground against legacy airlines [1,6]. A growing number of business people traveling to attend business meetings, conferences, and training programs within the region are willing to give up the in-flight service and comfort provided by legacy airlines for low fares. While the GCC-based LCCs are still heavily focused on working-class people and expatriates with modest incomes, they now seem to have a substantial share of business travelers. As noted above, whether these business travelers are new customers or they are being drawn away from the legacy airlines remains to be assessed. The present study intends to offer some initial insight into this important question.

The legacy airlines have reacted to the success of LCCs in several different ways. Most FSCs, for instance, have broadened the scope and quality of their service offerings to justify the higher fare they charge. In certain cases, as with their counterparts in the West such as British Airways, they have launched their own LCCs to expand their market coverage and protect their territories from the possible attack by LCCs [15]. Some commentators, for instance, attribute the introduction of Flydubai

by the government of Dubai in 2009 as a response to Air Arabia [6]. It is seen as a sort of counterattack by Dubai to maintain its leadership in GCC's airline market by offering service to both price-sensitive passengers and those looking for comfort and high quality in-flight service [16].

As with other LCCs that appeared in Europe and North America after the success of Southwest, most GCC-based LCCs have designed their service around the Southwest airline's low-cost model. The Southwest model is known for its simplification of passenger processing procedures, offering point-to-point service, using mostly one type of airplanes, and maintaining high frequency of flights [10,17]. Some low-cost airlines have attempted to customize the Southwest model to fit their specific needs. Bahrain Air, for instance, offers a separate premium class for travelers willing to spend a bit more money. Flydubai charges slightly higher fare than some other LCCs in the region. However, despite these variations, all LCCs are primarily competing with each other and with legacy airlines based on fares, convenience, and several other service elements [6,18,19,20].

3. RESEARCH HYPOTHESIS

The main hypothesis tested in this research may be stated in its null form as follows:

On a short haul service, business travelers using LCCs do not represent a separate market segment from business travelers using FSCs.

In order to test this hypothesis, the study will examine demographic and behavioral similarities and differences between two samples of business travelers, one using LCCs and the other using full-service, network airlines [7].

If the data reject the null hypothesis, it will be concluded that business travelers using LCCs and FSCs represent two distinct market segments. This will suggest that business travelers using LCCs make up a new segment of travelers who may have been using other modes of transportation before the availability of LCCs. Thus, the advent of LCCs has opened the market to a new group of price-sensitive travelers, and LCCs may focus their efforts on building and expanding this segment.

If, on the other hand, the null hypothesis is upheld, it will be concluded that short haul business travelers using LCCs and FSCs do not constitute separate market segments. This finding may be interpreted to suggest that LCCs have indeed succeeded in attracting away some business travelers from the network airlines, especially those travelers who do not attach much value to the frills offered by FSCs on short-haul routes.

Implications of these findings in terms of possible market strategies that LCCs and FSCs might use will be explored in the study.

4. METHODOLOGY

Data reported in this study were obtained through a brief self-administered survey instrument implemented at the following two airports in the United Arab Emirates (UAE): Sharjah International Airport (SIA) and Dubai International Airport (DIA). Data on business travelers using LCCs were collected from SIA, the home base of Air Arabia, a pioneer LCC in the Gulf region. In addition to Air Arabia, SIA also has several other low-cost or budget airlines operating from its premises, including Nas Air, Air Blue, Air-India Express, and Shaheen Air International [21]. Data on business travelers using network airlines were collected from DIA. Over 125 international network airlines fly from DIA's Terminals 1 and 2, while its new Terminal 3 exclusively serves Dubai's flag carrier, Emirates Airline [22].

A team of six graduating students taking marketing research and strategic management courses at a local university implemented the survey. It took four weeks to collect the data. The respondents were given the option to self-administer the survey or answer the survey questions and let the interviewer record the information. The survey was administered in the check-in and arrival areas in November-December 2012.

The participation in the survey was voluntary. A total of 308 business travelers provided the requested data. Of these, 176 (57%) were travelling by FSCs and 132 (43%) by LCCs.

The survey instrument used in the study was designed to cover a range of demographic and attitudinal dimensions [7,8,18,23]. Several items such as service quality, safety, and comfort, level of satisfaction, and individual culture values such as individualism and uncertainty avoidance were included in the survey. Since most questions were straightforward and clearly worded, the respondents were quite forthcoming in answering the survey.

5. DATA ANALYSIS AND RESULTS

To test the null hypothesis stated above, business passengers using LCCs and FSCs were compared on a number of demographic, attitudinal, and organizational variables. A combination of statistical techniques, including in particular, Chi Square,

ANOVA, and Two Samples Means Test was used to determine the degree to which the two samples were independent or related to each other. Since the null hypothesis assumes that the two samples are related to each other, Chi Square is considered as one of the most appropriate non-parametric statistical techniques to test the null hypothesis. In view of the categorical nature of the variables, we also used ANOVA to examine the relationship between the key study variables.

5.1 Demographic Profile

Table 1 presents demographic data on business travelers for both network airlines and LCCs. In terms of gender, while both samples had a larger proportion of male business travelers, the proportion of women was higher in the sample of network airlines' business travelers than the LCC passengers (13.6% vs. 8.3%). This gender distribution reflects the general demographic pattern in UAE where male expatriate workers have predominant presence in the labor market [24]. However, both the Chi Square and F values do not support the null hypothesis.

With respect to age distribution, over one quarter (26.5%) of the business travelers using LCCs were under 31 years of age, while the corresponding figure for FSC travelers was 6.8%. Nearly one-third (32.4%) of FSC passengers were 50 years or older. The mean age for the LCC sample (40.83) was significantly lower than their counterparts' mean age using network airlines (51.81; $p < .001$).

Table 1. Profile of business travelers using low-cost (LCC) and full-service (FSC) airlines

Gender	LCC Sample (N: 132) %	FSC Sample (N: 176) %
Male	91.7	86.4
Female	8.3	13.6
<i>Chi Square=2.10; df=1; P=.147</i>		
<i>Eta: .08; P=.133; F=2.10; P=.148</i>		
Age		
Under 31	26.5	6.8
31-35	18.5	12.5
36-40	17.2	20.5
41-45	9.8	14.2
46-50	9.1	13.6
51 and older	18.0	32.4
<i>Chi Square=29.28; df=7; P=.001</i>		
<i>Eta=.29; p=.001; F=29.57; P=.001</i>		
Occupational background		
Self-employed	26.1	12.5
Professional	19.4	53.4
Administrative	35.6	26.7

Skilled/Technical	18.9	7.4
<i>Chi Square=41.32; df=3; P=.001</i>		
<i>Eta: .09; P=.102; F=2.88; P=.090</i>		
Position in company hierarchy		
Top management	9.1	39.8
Middle management	37.1	26.7
Lower management	35.7	21.0
Non-management	18.1	12.5
<i>Chi Square=37.26; df=3; P=.001</i>		
<i>Eta: .28; P=.001; F=26.31; P=.001</i>		
Company size (number of employees)		
1-24	37.1	6.2
25-99	26.5	12.5
100-999	17.4	27.3
More than 1000	18.9	54.0
<i>Chi Square=71.85; df=3; P=.001</i>		
<i>Eta: .47; P=.001; F=90.27; P=.001</i>		

Data on survey participants' occupational background shows that most business travelers using LCCs worked in administrative jobs (35.6%) and held middle management positions (37.1%) while those using network airlines had a larger proportion of professionals (53.4%) and mostly worked as part of company's senior management team (39.8%). The LCCs' business passengers also included a larger proportion of self-employed (26.1%) than users of network airlines (12.5%).

Except for gender, differences between business travelers using LCCs and FSCs in terms of age, occupational background, position in the company, and size of their work organizations are relatively small. Statistical results based on Chi Square and F values support the null hypothesis.

5.2 Company Travel Policy and Internal Resources

Table 2 provides data on company travel policy and internal resources in the form of having a travel manager or a specific department to assist employees in the process of purchasing and booking tickets with different airlines. As would be seen, a larger number of organizations represented by business travelers using full-service, network airlines (74.4%) had a corporate travel policy than organizations represented by LCC users (54.5%). Also, a larger proportion of business travelers using full-service airlines reported to have a travel department or a travel manager than the LCC business travelers (26.7% vs. 18.2%). While a large majority of respondents from both samples said that their companies encouraged the use of LCCs, the proportion of LCC business travelers was much higher than the proportion using FSCs (81.8% vs. 54.0%). Only a small proportion of travelers using FSCs (19.3%) said that

their companies prevented the use of LCCs. The Chi Square results on corporate travel policy and policy on the use of LCCs support the null hypothesis while results relating to having an in-house travel manager or department slightly fall short of supporting the null hypothesis at .05.

Table 2. Company travel resources and travel policy

In-house Travel Manager (TM) Travel Department (TD)	LCC Sample %	FSC Sample %
Company has neither TM nor TD	72.7	60.2
Company has either TM or TD	18.2	26.7
Company has both TM and TD	9.1	13.1
<i>Chi Square=5.22; df=2; P=.073</i> <i>Eta=.12; P=.032; F=4.30; P=.038</i>		
Corporate travel policy		
Yes	54.5	74.4
No	45.5	25.6
<i>Chi Square =13.27; df =1; .001</i> <i>Eta: .20; P=.001; F=13.78; P=.001</i>		
Travel policy on low-cost airlines		
Encourages use of low-cost airlines	81.8	54.0
Prevents use of low-cost airlines	0.0	19.3
Holds no opinion on low-cost airlines	18.2	26.7
<i>Chi Square=36.74; df=2; P=.001</i> <i>Eta: .21; P=.001; F=14.71; P=.001</i>		

5.3 Travel Purpose, Booking Process and Channels

Table 3 summarizes data on flight purpose, flight selection, booking process, and booking channels. In looking at the purpose of travel, the data indicate several differences between the two samples. Most business travelers using LCCs were more likely to make sales and marketing-related trips compared to users of network airlines (26.5% vs. 14.2%), while those using network airlines were more likely to travel to attend conferences or take part in exhibitions than users of LCCs (25.6 vs. 9.1%).

Table 3. Travel purpose and booking behavior

Purpose of travel	LCC Sample %	FSC Sample %
Sales/marketing	27.5	14.2
External meeting/visit	25.4	26.7
Internal meeting/visit	19.1	19.9
Emergency/problem solving/training	18.9	13.6
Conference exhibition	9.1	25.6
<i>Chi Square=18.30; df=4; P=.001</i> <i>Eta: .18; P=.001; F=10.91; P=.001</i>		
Flight selection		
Traveler	64.4	59.1
Secretary	18.2	27.3
Company TM/TD	17.4	13.6

Chi Square=3.72; df=2; P=.156
Eta: .01; P=.602; F=.03; P=.860

Flight booking

Traveler	37.1	20.5
Secretary	18.9	38.6
Travel agent	35.6	27.8
Travel department	8.3	13.1

Chi Square=20.27; df=3; P=.001
Eta = .09; P=.132; F=2.68; P=.105

Booking channel

Airline website	26.5	20.5
Call Center	19.7	13.1
Travel agent	44.7	46.6
Travel agent site/company intranet	9.1	19.9

Chi Square=9.10; df=3; P=.028
Eta: .14; P=.006; F=6.58; P=.011

As may be seen, a large majority of business travelers from both samples selected their own flight. This may be attributed to an increasing use of the Internet to obtain travel information, and most travelers seem to prefer searching for such information on their own. The proportion of travelers using secretarial assistance in flight selection was higher for passengers of network carriers (27.3%) than those using LCCs (18.2%). With respect to flight booking, the data suggested fairly clear differences between the two samples. Most users of LCCs did their own booking (37.1%) or they went through a travel agent (35.6%). By contrast, most users of network carriers depended on their secretary for booking flights (38.6%). The two samples also showed substantial differences among business travelers in terms of channels used to book travel. A relatively larger proportion of LCC travelers (26.5%) used airline's website than users of network airlines (20.5%). Use of travel agents as a booking channel was fairly higher in both samples of business travelers. Chi Square results relating to flight selection support the alternative hypothesis suggesting independence of the two samples of business travelers.

5.4 Usage Behavior

Table 4 presents data on usage behavior of business travelers using LCCs and network airlines. The data revealed sizable differences between the two samples on the variables displayed in Table 4. While all users of network airlines have used this service before, a sizable number of LCC passengers (28.0%) never used the network service before. These are perhaps the new travelers who began traveling by air with the availability of less expensive LCCs and may be seen as evidence of LCCs

generating new business-related travel. A majority of the LCC users had used this service in the past year (69.5%) and had traveled by LCCs for business purpose (81.8%). Sixty percent (60.2%) of the business travelers in the FSC sample used LCCs in the previous year, and 40.3% used the LCC for business purpose. The LCCs need to pay some attention to nearly 60 percent business travelers in the FSC sample who have not used LCCs for business purpose as a potential market to penetrate into with their low fares. However, these figures may also be interpreted to suggest that these travelers are fairly satisfied with the service provided by network carriers and are less likely to consider switching to LCCs. In any event, there is an opportunity for LCCs to more aggressively pursue this market segment.

The respondents were further asked whether the network carriers offered value for money in business class for short-haul travel. As may be expected, the proportion of business travelers who perceived some value in the business class was higher among network airlines' travelers than users of LCCs (33.5% vs. 17.4%). However, in both samples, a larger proportion of respondents believed that business class did not offer value for money for short-haul travel. The LCCs may target these travelers of network airlines who do not see much value in business class travel. It may also be noted that a larger proportion of network airlines' travelers (81.1%) expressed their willingness to use LCCs for business travel in future. This supports the possibility of these travelers considering the LCC option somewhat more seriously in their future business travel plans.

The survey also assessed the possible impact of a reduction in travel budget on business passengers' travel behavior. A little over one-third of the LCC travelers (36.4%) said they would reduce the amount of travel in case of a budget cut compared to 13.1% of the network airlines' passengers. Most of the passengers using network carriers (38.6%) said that they would take as many trips but switch to LCCs. In addition, a fairly substantial proportion of passengers travelling by network airlines also indicated that they would take few business class flights (13.6%) or downgrade to economy class (34.7.0%). Consistent with previous research [9], these findings suggest that a large number of business people using network airlines would be inclined to switch to low-cost travel and LCCs may consider this segment for their future marketing efforts.

On the whole, the Chi Square results relating to usage behavior are consistent with the null hypothesis.

5.5 Importance Rating of Service/Product Elements

Finally, the respondents were asked to rate a set of ten product elements in terms of their importance on a 10-point rating scale where high scores indicated greater importance. The results generated by a two-sample means test are shown in Table 5. The data revealed several interesting differences and similarities between the two samples. As would be seen, business travelers in both samples gave similar rating to the following two service elements: service frequency and safety. The LCC travelers placed significantly more importance on ticket price than the network business passengers. They also give significantly higher rating to ticket flexibility than users of network airlines. The remaining six product elements, namely, service quality, punctuality, in-flight service, comfort, frequent flier (FF) schemes, and the availability of business lounge received significantly higher rating from business travelers using full-service, network airlines than those using LCCs. However, the overall low rating of FF schemes and business lounge would suggest that these services are perhaps losing some of their traditional appeal to most travelers, including the passengers of network airlines. Despite this change, business travelers using network carriers still belonged to more FF schemes than LCC travelers. In the present survey, on average, they belonged to 1.7 FF schemes while those using LCCs, on average, belonged to .5 FF schemes. In addition to ten product elements, the survey participants also rated their overall level of satisfaction with the service. Both groups of business travelers showed a fairly high and comparable level of service satisfaction. These findings do not support the null hypothesis investigated in this study.

Table 4. Use of low-cost (LCC) and network (FSC) airlines

Use of low-cost and network airlines	LCC Sample	FSC Sample
	%	%
Used a network, full-service airline before		
Yes	72.0	100.0
No	28.0	0.0
<i>Chi Square=56.06; df=1; P=.001</i>		
<i>Eta: .42; P=.001; F=68.10; P=.001</i>		
Used a low-cost airline in the past year		
Yes	69.5	60.2
No	30.5	39.8
<i>Chi Square=16.58; df=1; P=.001</i>		
<i>Eta: .23; P=.001; F=17.41; P=.001</i>		
Used a low-cost airline for business		
Yes	81.8	40.3
No	18.2	59.7
<i>Chi Square=53.31; df=1; P=.001</i>		
<i>Eta=.41; P=.001; F: 64.05; P=.001</i>		

Will use a low-cost airline for business in future		
Yes	100.0	81.1
No	0.0	18.9
<i>Chi Square=29.61; df=1; P=.001</i>		
<i>Eta: .31; P=.001; F=32.55; P=.001</i>		
Business class offers value for money		
Yes	17.4	33.5
No	82.6	66.5
<i>Chi Square=10.0; df=1; P=.002</i>		
<i>Eta =.18; P=.001; F=10.27; P=.001</i>		
In the event of a cut in travel budget you would		
Reduce travel	36.4	13.1
Take few business flights	9.1	13.6
Downgrade to economy	0.0	34.7
Same number of flights but on low-cost airlines	54.5	38.6
<i>Chi Square=69.04; df=3; P=.001</i>		
<i>Eta: .10; P=.597; F=3.50; P=.062</i>		

Table 5. Importance rating of service elements

Service elements	LCC Sample	FSC Sample	t value*	Level of Significance
	Mean	Mean		
-				
Quality	7.73	8.47	13.41	.001
Punctuality	8.16	8.73	9.81	.001
Frequency	8.37	8.43	1.09	.121
Price	9.36	7.59	27.35	.001
Ticket flexibility	8.74	8.40	6.21	.001
In-flight service	5.35	8.45	31.89	.001
Comfort	6.83	8.51	30.92	.001
Safety	8.89	8.78	1.82	.101
Frequent flyer scheme	3.52	5.08	10.56	.001
Business lounge	2.90	5.66	26.97	.001
Overall satisfaction with service	8.51	8.60	1.46	.67

*Degree of freedom (df) for all 11 variables shown in this table is 1

The survey asked respondents whether they would be willing to pay for certain additional services such as gaining entry into a business lounge or having a special meal, etc. Most travelers were not willing to spend on these extras. The proportion of LCC travelers (83.3%) who were unwilling to spend on such frills was higher than business passengers using network airlines (56.3%). Asked whether their companies would be willing to pay for such extras, a small number of respondents answered affirmatively. The proportion of network airlines' business passengers who said that their companies would pay for such frills was higher than the LCC passengers (31.3% vs. 8.3%).

6. FINDINGS IN REVIEW

The comparative survey data on business travelers of LCCs and FSCs reported in this paper have generated a set of valuable findings. To recap, business travelers using LCCs tend to be relatively younger, holding administrative jobs in middle management positions, and mostly working in smaller companies. They also tend to be different in terms of the booking process and the channels used for booking flights. They make fairly extensive use of airline websites while a large number of passengers of network airlines consider travel agents as a major booking channel. With respect to rating of key service elements, the LCC passengers place more importance on fares than the usual frills offered by network airlines such as FF schemes and in-flight service. Business travelers using network airlines, by contrast, tend to be somewhat older; they hold professional jobs, and work for larger companies in executive positions. Unlike their counterparts using LCCs, they place greater importance on in-flight service, comfort, business lounge facility, and FF programs, and are willing to pay higher fares for these product elements.

However, it must be emphasized that in the current financial situation both groups of customers (i.e., LCC and FSC customers) seem to look for better value for the travel price they are willing to pay. They do shop around on their own or with the help of their secretarial staff, in-house travel managers or departments, and travel agents to maximize the return on their travel expenses. Most travelers using LCCs or network airlines see little value in business class travel and would like to consider LCCs in future. In case of reduction in travel budget, several users of network airlines would prefer to use LCCs rather than reducing the frequency of their flights.

The differences between two groups of passengers seem to lend some support to the claim that LCCs have created a new segment of passengers who either did not travel much or travelled using other modes of transportation before the LCCs became available. The fact that most travelers from both groups have used LCCs and FSCs before makes it easy for them to change their preference for better value. With personal budgets becoming more important in people's travel decisions and the consequent popularity of LCCs, the network carriers might lose some business travelers to LCCs in the GCC region. There is some indication that LCCs have achieved initial success in attracting some passengers from the network airlines. Several current LCC passengers in the sample have used network airlines before the emergence of LCCs.

Likewise, several users of network airlines showed willingness to use LCCs for business purpose in future.

As implied by these findings, the management of LCCs can certainly benefit by building closer and meaningful ties with the corporate world. Most large-sized companies have extensive purchasing facilities, separate travel departments or managers, and LCCs can exploit such resources to reach the key personnel representing senior managers who frequently travel to address routine organizational problems or attend corporate meetings and conferences. Traditional channels such as travel agents can play a vital role in reaching this target group to enter the corporate world of business travelers.

Use of web-based booking is gradually increasing in the GCC countries and is likely to increase further since the region is one of the most IT-connected regions in the world [16]. However, most travelers still feel uncomfortable with Internet-based transactions. In fact, some survey participants, especially the LCC passengers, felt forced to go through the company's website as most LLC-operated travel agencies rarely attend telephone calls (always busy signals!) and their call centers usually direct the customer to their websites. It seems perhaps too hasty for LCCs in the GCC region to promote web-based booking too aggressively at this early phase of the low-cost service model [6]. As noted above, this may further de-emphasize the traditional marketing role of travel agents, who are known for playing a central role in promoting their sponsoring airlines. Most GCC travelers are accustomed to the service offered by travel agents and will need considerable time to make transition to Internet-based booking channels, which they find somewhat impersonal.

7. CONCLUSION AND IMPLICATION

The findings of the present study indicate a number of differences and similarities between business travelers using LCCs and network airlines. On the whole, the data reveal more differences than similarities between the two groups in the GCC region and thus we may partially reject the null hypothesis in favor of the alternative hypothesis. The findings support the conclusion that business travelers using LCCs form a fairly distinct market segment from travelers using FSCs in the GCC region.

Since market segments in the airline business tend to change very swiftly [10,11,25], it is important to periodically monitor the salient features of the segments

served by LCCs and network airlines. As travelers' economic and social circumstances change, their preferences for network airlines or LCCs are likely to change. Further research is clearly needed to generate periodic data to review the profiles of business travelers using LCCs and network airlines and assess the nature and extent of change in their preferences. Such data are important to guide marketing strategies of both LCCs and network airlines in the present competitive environment facing the airline business in GCC and other parts of the world.

With growing popularity of LCCs in the GCC region and several Asian countries such as China and India, the number of both business and leisure travelers is likely to grow. This will further stimulate the competition in the regional and global airline market, which may lead to the emergence of new LCCs or even the extinction of some less competitive airlines. It is perhaps important to note that in early 2014, RAK Airways stopped its operations after just about three years in business. In 2010, Sama Air, a Saudi Arabian LCCs grounded its service. However, despite these failures, the success of some LCCs such as Air Arabia and Fly dubai may attract new LCCs in the region. For instance, in 2010, Qatar Airways announced its intention to introduce a low-cost service [26]. While this decision is still pending, there is, however, always the possibility of other potential competitors entering the low-cost air service in the Gulf region where the population of expatriates is rapidly increasing.

Research on the competitive strategies of low-cost and full service airlines is an important area that merits special attention in future studies of the airline business in the GCC region. Another issue that future research may address is the changing nature of the relationship between the airlines and airports as a result of low-cost airlines' pressure on airports to renegotiate operational costs in order to sustain the low-cost model [14].

The phenomenal growth of LCCs has caused major changes in the profile of airline customers in almost all countries around the globe. The implications of the findings explored in this paper are not confined to the GCC region per se. It will be useful to replicate the present study in other countries and regions to develop a better understanding of the strategies that may enhance the performance of both low-cost and full service airlines in the current highly competitive airline industry.

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COMPETING INTERESTS

The authors have declared that no competing interests exist.

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Saving-Investment Gap and Economic Growth in Developing Countries: Simulated Evidence from Selected Countries in Africa

ABSTRACT

It is a challenge for most developing countries, especially in Africa, to mobilize domestically enough capital to meet their extensive investment needs because of two main reasons: the undeveloped nature of their financial system and the low rate of access of households to basic financial products. This study analyzes the impacts of persistent savings (S)-investment (I) gaps on economic growth using a sample of 5 developing countries in Africa - Egypt, Côte d'Ivoire, Ghana, Kenya and Nigeria. The methodology of this study is based on a Ramsey model within a general equilibrium framework where consumption and savings are the determinant factors in a typical household's utility function. Calibrations and simulations indicate significant gaps between optimal and actual levels of savings and investment. Furthermore, the findings point out that these gaps are associated with relatively lower growth rates of actual output compared to simulated output, with the notable, but limited, exception of Nigeria until 2019. It accordingly becomes appropriate to suggest policies addressing both the structural and non-structural factors that limit the ability of these developing countries to effectively bolster households' deposits.

Keywords: savings-investment gap; economic growth; developing countries; Africa; JEL Classification: E27, O11, O55.

1. INTRODUCTION

Emerging countries in Asia have bolstered the long-established paradigm that identifies domestic savings as the backbone of any sustainable development

process. This stylized fact has generated lots of interests among academics and development partners as attested by the extensive body of theoretical and empirical studies that exists on the impact of domestic savings on real output. Another stylized fact is that developing countries in general, and the ones in Africa in particular, present a picture dually characterized by (i) low domestic savings in volume and as a share of gross domestic product (GDP) and (ii) the absence of both tangible and adequate policies to promote domestic savings.

With a financial system that lacks depth and breadth, let alone the absence of strong and effective regulatory institutions, African countries face challenges when attempting to mobilize capital domestically to meet their massive investment needs. It is critical that these countries explore in earnest means and ways to tap into their domestic markets in light of their limited access to international capital markets. Such an approach is viable and has the merit of making these countries less dependent on international capital markets. It also reduces the uncertainty associated with the collection of funds to finance the development of infrastructure systems or support other macroeconomic policy priorities. Indeed, the twofold goal of generating sustained economic growth and making a dent in the level of poverty is unattainable for African countries unless substantial direct investments in the creation, expansion and maintenance of infrastructure are made. In other words, domestic direct investment through domestic savings or domestic capital markets must be the centerpiece of the much-needed infrastructural transformation in African countries.

According to the World Bank's African Development Indicators [1], gross domestic savings as a fraction of GDP across Africa is relatively low. It roughly stood at 20, 17 and 21 percent in the 1980s, 1990s and 2000s, respectively. Comparatively, these figures were 28, 32 and 32 percent respectively for Asian countries over the same periods [2]ⁱ.

This paper endeavors to investigate through a dynamic simulation exercise the impacts of persistent and large savings-investment gaps on economic growth. It will derive in the process the costs associated with these low savings rates in terms of economic growth forfeited.

The literature abounds in papers pertaining to savings, capital accumulation and economic growth in both developing and developed countries.

It is impossible to entertain a substantive discussion about savings, capital accumulation and economic growth without referring to the pioneers of economic development and growth models of the likes of [3,4,5,6,7], among others. The common denominator of all these studies remains the indispensable nature of both savings and investment in achieving sustained economic growth.

As elaborated by [8], a country that does not generate enough savings to fund investment must find external sources of funding or incur a cost at the macroeconomic level in the form of “slow progress in [economic] development” Ultimately, such a cost will impact income distribution in a given country.

Many Asian countries (China, Japan and East Asian Tigers) have been renowned for higher rates of savings comparatively to other regions of the globe. These high rates have prompted some scholars such as [9] to examine the optimality of savings, more specifically, as it applies to China. Using an open economy Ramsey model with both perfect and imperfect world capital, they uncover that savings in China are excessive. This finding implies that current generations forgo higher consumption, which leads to a sub-optimal level of consumption in the economy, at equilibrium.

On another note, [10] focuses on India to explore whether or not domestic savings cause economic growth. Their methodology mainly utilizes two well-known estimation techniques in the literature: co-integration and maximum likelihood. In accordance with the neoclassical and post-neoclassical models of economic growth, they establish that savings have long-run effects on income. Furthermore, they find out that growth impacts savings as well-establishing thereby that there is a bidirectional cause and effect relationship between savings and growth. [11] comments on the relationship between the balance of payments of the United Kingdom (UK) and the savings gap. Through a careful analysis of trends in UK's investment-savings gaps from 1960 to 2007, she reaches the conclusion that the balance of payments deficit experienced by this country is proportional in size to the investment-savings gap. To promote savings and reduce this gap, she proposes among other policies the imposition of taxes on consumer credit and mortgages and the subsidy of savings.

In explaining both low savings rates and large savings-investment gaps in developing countries, [12] point to the scarcity of formal financial intermediaries in these environments where informal intermediaries have flourished. For instance,

there exist systems such as the Caja de Ahorros in Panama, Susu in Ghana and Ton Ton in Sierra Leone and Islamic banking, among others. Using macroeconomic identities, they determine, in the case of the latter, that savings-investment gaps are worsened as it promotes higher consumption.

This paper is organized as follows. The next section presents some perspectives regarding savings and investment in Africa. Section 3 discusses the macroeconomic model used in this study. In section 4, calibrations are made and results of simulations are shown and commented. Concluding remarks are made in the fifth section.

2. AFRICAN HOUSEHOLDS: SAVINGS PATTERNS AND HABITS

From their independence until the beginning of the 21st century, most developing countries in Africa heavily relied on overseas development assistance (ODA) to fund the bulk of investment needed to prop growth and create a sustainable economic development path. Consequently, the domestic and regional financial markets - as sources of funds - were neglected considering that no or few viable policies were actively implemented to shore up domestic savings, especially households' savings.

For the sample of African countries considered in this study, the average savings rates have hovered between 6 and 23 percent of GDP since 1980. Ghana for instance reached average savings rates of 6.2, 7.3 and 5.6 percent in the 1980s, 1990s and 2000s, respectively. These rates have remained modest, especially in the most recent years. Such a situation has underscored the heavy reliance of the country on foreign sources of capital to address its domestic investment needs. It is important to emphasize that all modern economies vie to create a competitive environment to attract foreign investment. However, one cannot stress enough the fact that foreign investment or foreign sources of capital should not be a substitute for domestic investment or domestic sources of capital, which is essential to sustain economic development and create a balanced growth path less subject to external factors or shocks.

On the other hand, Nigeria has exhibited higher rates of 19.6, 24.7 and 23.9 percent respectively in the 1980s, 1990s and 2000sⁱⁱ. These rates, although moderate, pale in comparison to those of a developing country such

as China, which boasted rates of 35.4, 41.1 and 47.3 percent, respectively, over the same periods (Fig. 1).

In sum, it appears that domestic savings rates are relatively low in most African countries, except for countries like Nigeria where these rates are moderate. It is noteworthy that the lion's share of domestic savings by African households is in the form of nonfinancial assets [13]. This fact compounds the existing challenges encountered in the mobilization of resources by drastically reducing the pool of resources available through the domestic financial capital market. A natural consequence of such an environment is a rampant savings-investment gap.

Furthermore, the bank access rate remains low in our sample of countries in particular and African countries in general. The latest figures obtained in 2011 show that these rates are below 50 percent for all countries in our sample (Fig. 2). Diligent efforts to improve the bank access rate will expand a great deal the pool of funds that can domestically be tapped into.

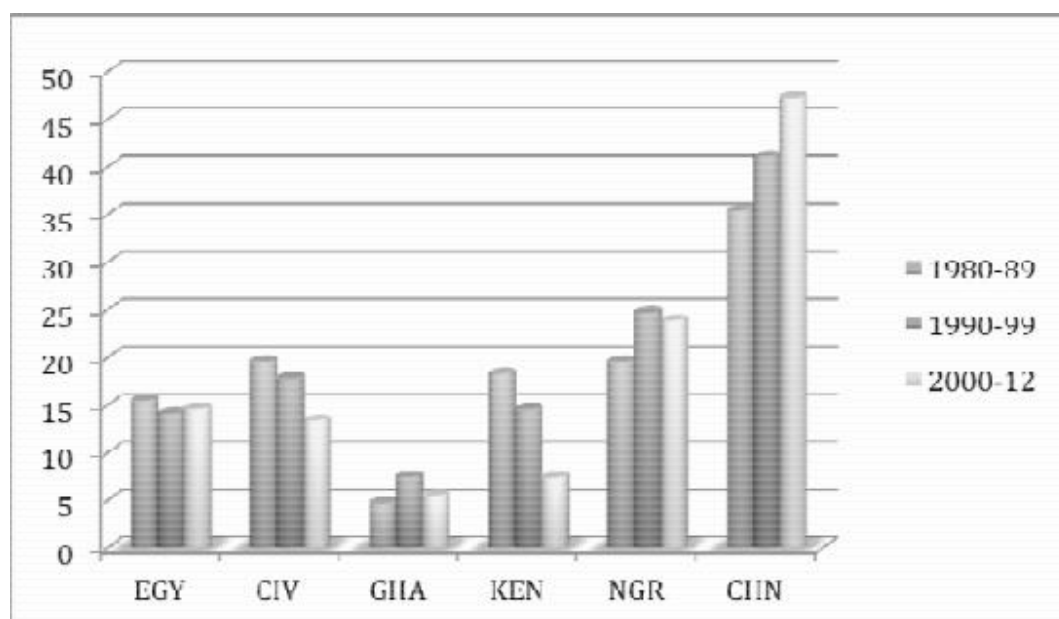


Fig. 1. Gross domestic savings (% of GDP)

Source: World Development Indicators (World Bank)ⁱⁱⁱ.

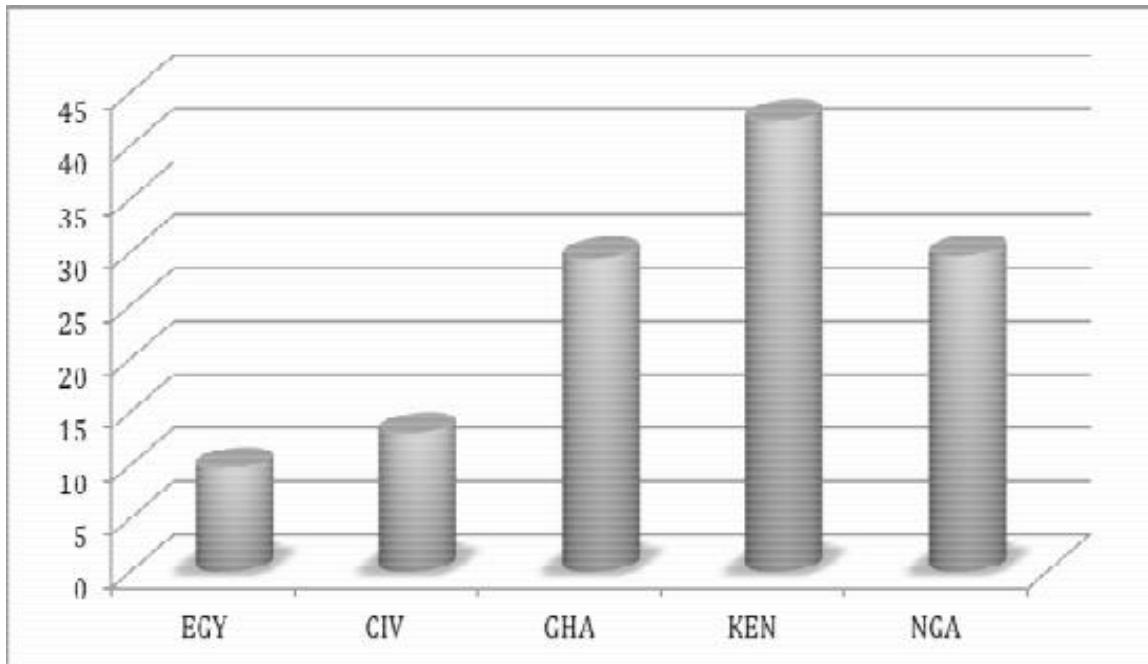


Fig. 2. Rate of Adults with an Account at a Formal Financial Institution (%), 2011^{iv}

Source: Global Financial Development (World Bank) and BCEAO (Central Bank of West African States), Annual Report, 2011.

3. MODEL

The methodology of this project is based on a Ramsey model within a general equilibrium framework. We assimilate each African developing country to a small-open economy with three sectors-household, firm and government. The model follows [14,15].

3.1 Household Sector

The representative household's lifetime utility depends on savings and consumption, which use up her entire income at each time period. The preferences of a typical household are captured by a (utility) function $U(.)$ that exhibits intertemporal dependency in consumption, through habit formation, and separability between consumption and savings. As a result, $U(.)$ can be defined as

$$U(C_t, S_t) = \alpha \log(C_t - \nu C_{t-1}) + (1-\alpha) \log(S_t), \quad (1)$$

where C_t and C_{t-1} represent spending on consumption goods at time t and $t-1$, respectively; and S_t is savings. We assume that both C_t and S_t are nonnegative, and the former is also nonzero. α is the fraction of household's

income spent on consumption, while v captures habit formation or any aspect of past consumption patterns subsequently carried over. More specifically, the past refers to the previous period, $t-1$, only. $0 < \alpha < 1$ and $v > 0$.

v is relevant in this formulation considering that a typical African household is more likely to adopt a rather conservative approach as far as consumption is concerned. Two main rationales could support this fact. First, the average size of a typical African household or “family” is large, and its definition is culturally different from the one prevailing in Western countries. Second, there is a relatively high poverty rate and a dominant rural population. Thus, it is likely that v will carry a relatively high value.

Optimality for the representative agent is reached when she maximizes her lifetime utility with respect to C_t and S_t subject to the budget constraint:

$$w_t L_t + r_t S_{t-1} + T_t = C_t + S_t, \quad (2)$$

where, at time $t = 1, 2, 3, \dots$, w_t and r_t are the remunerations of labor and capital respectively. S_t is savings and T_t accounts for government transfers received.

3.2 Firm Sector

Output production is characterized by a Cobb-Douglas function:

$$Y_t = A_t K_t^a L_t^{1-a}, \quad (3)$$

where, at time $t = 1, 2, 3, \dots$, Y_t stands for output; A_t captures the state of technology and K_t is a measure of capital stock. Additionally, a is the partial elasticity of output with respect to capital – the capital share of output – and $(1-a)$ indicates the partial elasticity of labor with respect to output – the labor share of output. The optimization problem for the typical firm sums up to choosing the appropriate levels of K_t and L_t that maximize its profit. That is:

$$\text{Max } A_t K_t^a L_t^{1-a} - r_t K_t - w_t L_t \quad (4)$$

3.3 Government Sector

The government of any representative economy has two sources of revenue: tax and borrowing. The latter is achieved through bonds issuance, while the former applies essentially to consumption in the form of a value added tax (VAT). The revenue collected serves two main purposes and is entirely spent at each time period. On the one hand, it is used to retire previous debt and it helps finance, on the other hand, a variety of social programs and the provision of public goods through transfers to households. Based on these premises, the government budget constraint is set up as follows:

$$\tau_t C_t + b_t = T_t + R_t b_{t-1}, \quad (5)$$

where, at time $t = 1, 2, 3, \dots$, b_t is borrowing (in the form of bonds issued) and R denotes the world interest rate that applies to borrowing contracted by the government on international capital markets^V.

Following the definition of the model, we proceed to solving it by deriving the first-order conditions and steady states that will serve as the basis for simulations.

The first-order conditions associated with the representative firm yield:

$$r_t = \alpha A_t K_t^{\alpha-1} L_t^{1-\alpha} \quad (6)$$

and

$$w_t = (1 - \alpha) A_t K_t^\alpha L_t^{-\alpha} \quad (7)$$

Equations (6) and (7) can further be expressed on a per capita basis:

$$r_t = \alpha A_t k_t^{\alpha-1} \quad (6')$$

and

$$w_t = (1 - \alpha) A_t k_t^\alpha \quad (7')$$

where, at $t = 1, 2, 3, \dots$, k_t represents capital per unit of labor.

The transition law of capital can be written as:

$$K_t = (1 - \delta) K_{t-1} + I_t \quad (8)$$

where I_t is investment at $t = 1, 2, 3, \dots$

Lemma: S_t is not different from I as government's savings does not exist, or is assumed negligible. In other words, $S_t \equiv I_t$.^{vi}

Using Equation (1) and lemma 1, Equation (8) becomes:

$$S_t = K_t - (1-\delta)K_{t-1}. \quad (9)$$

Therefore, the final form of a typical household's budget constraint is:

$$w_t L_t + r_t S_{t-1} + T_t = C_t + K_t - (1-\delta)K_{t-1} \quad (10)$$

The Lagrangian resulting from the optimization problem is written as follows:

$$L = \sum_{t=1}^{\infty} \varepsilon^t [\alpha \log(C_t - \nu C_{t-1}) + (1-\alpha) \log(S_t)] + \sum_{t=1}^{\infty} E_{t-1} \varepsilon^t \lambda_t [w_t + K_t - (1-\delta)K_{t-1} - w_{t-1} - R_{t-1} S_{t-1} - T_t] \quad (11)$$

Using Equation (11), the first-order conditions are derived as follows, after rearranging:

$$\lambda_t = \frac{\alpha}{C_t - \nu C_{t-1}} + \frac{\alpha \nu}{C_{t+1} - \nu C_t} \varepsilon \quad (12)$$

$$\varepsilon^t \lambda_t \left[\frac{a(1-a)}{K_t} Y_t + \frac{a(a-1)}{K_t^2} Y_t S_{t-1} - 1 \right] = \varepsilon^{t+1} E_t \lambda_{t+1} (1-\delta) \quad (13)$$

$$\varepsilon^t (1-\alpha) \frac{1}{S_t} = \varepsilon^{t+1} E_t \lambda_{t+1} R_{t+1} \quad (14)^{vi}$$

The parameters of the model are a , α , δ , ν and E and the identified exogenous variables are R_t , A_t , w_t and r_t and T_t .

3.4 Parameterization and Calibration of the Prototype Model

After deriving the solutions to the economic problem, the simulation processes for the paths of savings and investment, and savings-investment gap, and output can be completed for Egypt, Côte d'Ivoire, Nigeria, Ghana and Kenya. This step requires the parameterization of our model that is summed up in Table 1.

Table 1. The parameter values

Parameters	Source	Values				
		EGY	CIV	GHA	KEN	NGA
a	WDI, AfDB	0.6	0.7	0.7	0.69	0.7
α	WDI, AfDB	0.8	0.85	0.83	0.7	0.65
δ	WDI, AfDB	0.08	0.095	0.086	0.081	0.045
v	Authors	0.6	0.65	0.65	0.65	0.65
ε	WDI, AfDB, IFS	0.891	0.95	0.814	0.842	0.887

In a second step, the prototype model is calibrated for each country using the year 2010. Simulations are conducted from 2010 to 2040 using the method by [16, 17]. As far as the data generating process is concerned, an AR (2) model is used for Côte d'Ivoire and Ghana.

For Nigeria and Kenya, an ARMA (2,3) is considered, while an ARMA (3,1) is found to be appropriate Egypt^{viii}.

4. RESULTS^{ix}

Fig. 3 reports the outcomes of simulations for Côte d'Ivoire (CIV) when the SI gap is contained and reduced. Indeed, from 2010 through 2040, the simulated gap remains on the average 52 percent lower than actual values. More specifically, this figure hovers around 46, 55 and 54 percent for the 2010s, 2020s and 2030s, respectively (Table 2). On the other hand, it appears that such a reduction in the gap for this country generates a substantial boost in output. This boost ranges between 10 and 13 percent over the period of interest through 2040, with an average of 12.5 percent. In other words, the country's real output level is expected to be about 12.5 percent higher than actual (real) output, on the average, if it were to diligently implement policies intended to halving the SI gap.

Table 2. Reduction targets in SI gaps (in percentage)^x

PERIOD	CIV	EGY	GHA	KEN	NGA
2010-2019	46.8371932	19.5196052	75.4863834	74.17878333	-
2020-2029	55.03938464	19.25681193	66.45335995	48.74071509	70.24448219
2030-2040	54.80382436	18.64896329	66.90283	30.54222683	73.04731857
Average	52.2	19.1	69.6	51.1	40

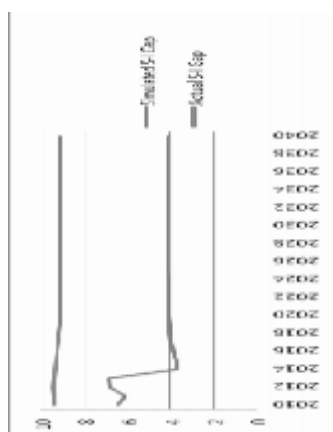
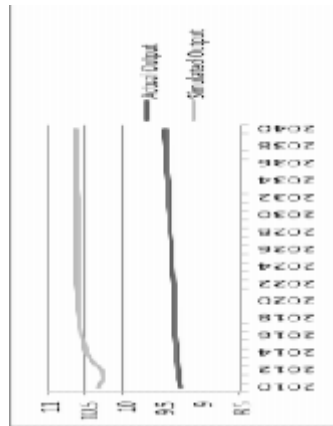
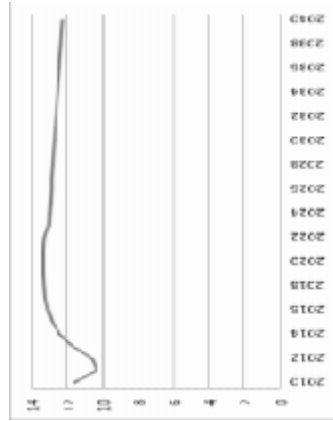


Fig. 3. Côte d'Ivoire

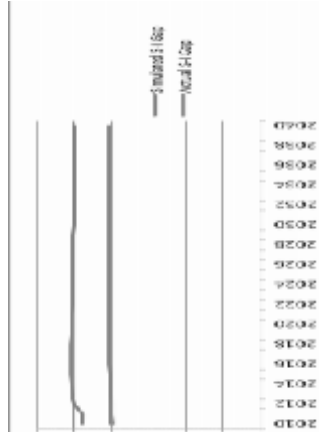
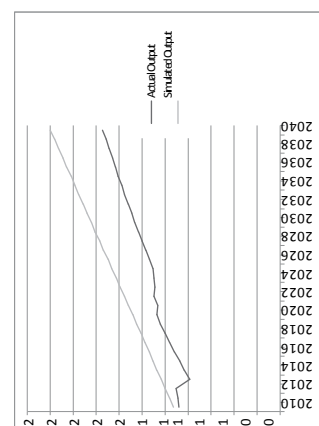
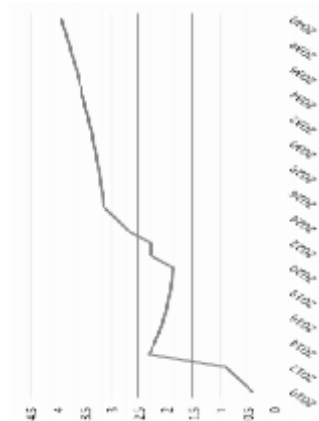


Fig. 4. Egypt

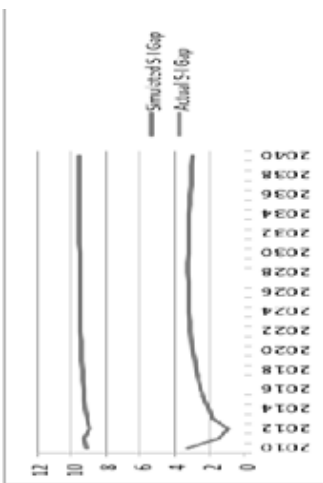
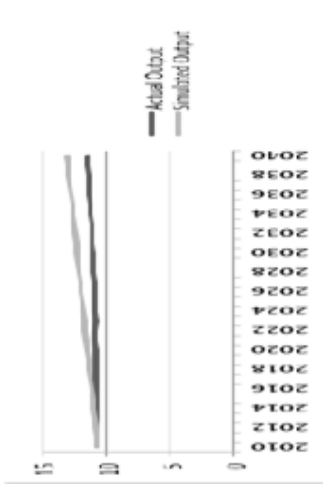
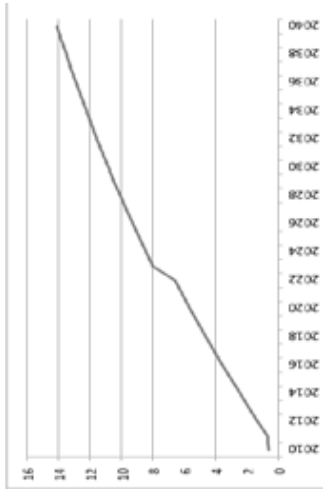


Fig. 5. Ghana

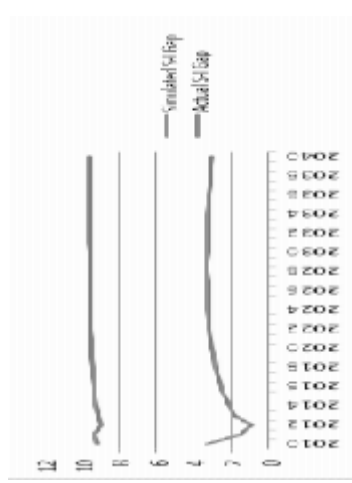
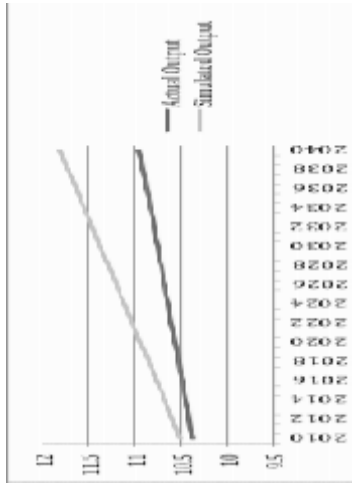
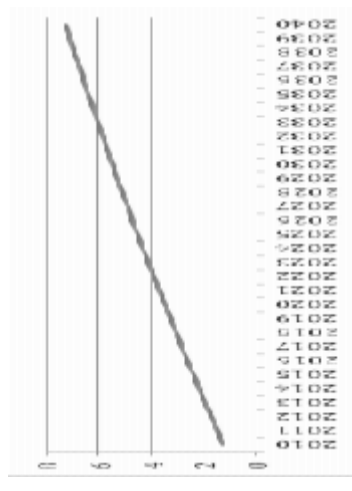


Fig. 6. Kenya

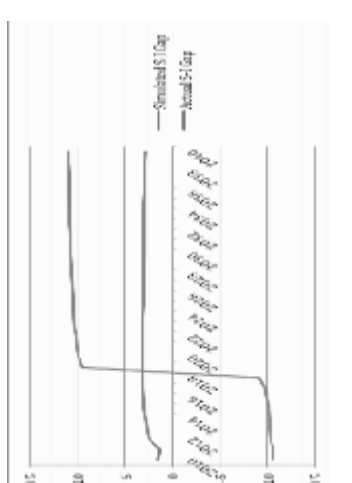
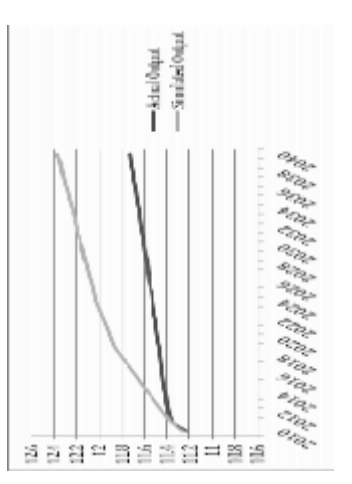
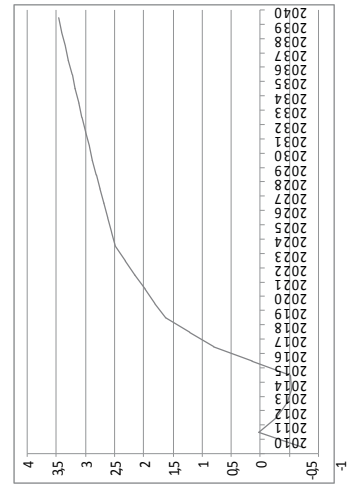


Fig. 7. Nigeria

As far as Egypt (EGY) is concerned, Fig. 4 reveals that the simulated SI gap is about 19 percent lower than the actual one from 2010 to 2040 (Table 2). By curbing this gap, the study points out that EGY will be able to reach a level of output about 2.7 percent greater than its actual level, on the average, over the period aforementioned. This figure is relatively small compared to the one of CIV. However, it is noteworthy that these simulations find out that EGY will cross the \$1 trillion landmark for RGDP in the vicinity of the year 2035.

As reported in Table 2, the simulated SI gap is found to be 69 percent below its actual level for Ghana, on the average. This is the largest decrease for the 5-country sample considered in this study (Fig. 5). This figure reaches a peak of 75 percent in the 2010s. Over the period of interest, the analysis shows that simulated output is about 8 percent higher than actual output once the reduction target of SI gap is achieved.

For Kenya (KEN) and Nigeria (NGA), the simulations reckon reduction targets of 51 and 40 percent, respectively, in SI gaps (Figs 6 and 7). These targets in turn bring about an additional real output gain of 4.5 percent for Kenya and 2 percent for Nigeria. For the latter country, the real output will cross the \$1 trillion mark around 2025, approximately 10 years before Egypt.

Moreover, a peculiarity is noteworthy. Indeed, until around 2019, simulations results indicate that savings surpass domestic investment. As a result, one notices that simulated output globally trails actual output over that time period. This finding is unique to NGA. However, from 2019 onwards, it appears that the trend is reversed as savings lag behind domestic investment.

This fact transpires as well in the comparison between simulated and actual output with the former outpacing the latter.

Overall, this simulation exercise for CIV, EGY, GHA, KEN and NGA has highlighted that a reduction in the SI gap is associated with a faster expansion of real output.

To reduce this gap in practice, concrete steps to reverse the low access rate of households to financial institutions could be taken to grow the available pool of domestic fund to finance domestic investment. Among other measures that could be impactful, a framework should be implemented to drastically reduce or eliminate altogether fees charged to individuals to open and/or operate a bank account - savings or checking. Indeed, these fees prove exorbitant in an

environment where tens of millions live with less than a dollar a day. Furthermore, paperwork must be slimmed down to the minimum, as obtaining certain documents, namely identity cards, can prove challenging for many [18]. Another approach that could be contemplated is the introduction of a well-thought subsidy scheme for savings, as advocated by [11].

Moreover, to increase the access of households to financial outlets, para-financial institutions and new technologies should be introduced and expanded. For instance, post offices and other microfinance institutions could be part of the solutions. It is also imperative that authorities develop safeguards that protect all depositors, especially the small ones, as confidence in the financial system is indispensable. This is crucial as illiteracy rates are still high in these developing countries. Indeed, it is unlikely that an illiterate farmer in some remote area will harbor enough confidence to deposit his hard earned income with any institution. As far as new technologies are concerned, the prevalence of cell-phone users in most African countries can be an asset in promoting mobile banking based on the experiences of countries like Kenya and Nigeria.

5. CONCLUSION

This paper has endeavored to investigate the relationship between SI gaps and output using a Ramsey model within a general equilibrium framework. Simulation exercises for a selection of 5 developing countries in Africa are conducted. Within our framework and the 5 sets of calibrations performed, results seem to conclusively point to positive impacts of reductions in SI gaps on output expansion. This finding suggests that the implementation of effective policies to decrease the SI gap could be considered as a viable option by decision-makers in their attempt to boost economic growth in their respective countries.

All in all, developing countries in general and African countries in particular should earnestly open a new chapter regarding the mobilization of resources to finance their vast investment needs. Mobilizing and relying on - their own - domestic resources should henceforth be front and center of that new chapter, which will usher in the beginning of a new development paradigm in Africa.

Notes

ⁱThe Asian countries considered are China, South Korea, Philippines, India, Indonesia, Malaysia and Thailand.

ⁱⁱThe years 2000s are extended through 2012 to include the most-up-to-date data in this study.

ⁱⁱⁱData from Nigeria were collected from the African Development Bank Socio-economic database [19].

^{iv}For member states of the West African Economic and Monetary Union, data were unavailable for Côte d'Ivoire and Cape Verde in the WDI database. For other countries in this Union, data show Burkina Faso with the highest rate at 13.4%.

^vThese include as well borrowings from bilateral and multilateral partners - World Bank, International Monetary Fund, African Development Bank, and so forth.

^{vi}This lemma, which is commonly derived and used in the macroeconomics literature, does not depart a great deal from a stylized fact in most developing African countries, as public savings is by and large marginal.

^{vii}The intertemporal Euler Equation is,
$$\frac{(1-\alpha)}{S_t} = \varepsilon R_{t+1} \left[\frac{\alpha}{C_{t+1} - \nu C_t} + \frac{\alpha \nu \varepsilon}{C_{t+2} - \nu C_{t+1}} \right].$$
 It is obtained by deriving $E_t \lambda_t$

from Equation (12) and substituting in Equation (14).

^{viii}These models provide the strongest econometric results with White Noise residuals and lowest AIC and SIC values. Furthermore, approximations methods for all solutions were developed following synthesis presented by [20].

^{ix}For each figure, the third exhibit represents the average percentage increase (or change) in simulated output – above actual output.

^xIn the 2010s, savings exceed investment by about 19 percent for Nigeria. This explains the low average for this country over the entire simulation period.

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Agriculture and Manufacturing Sector Growth in Namibia During the Period 1981 to 2012: A Granger Causality Test

ABSTRACT

Namibia became independent in 1990. Since then, the democratic government has pursued various development policy tools to empower Namibians economically. The 4th National Development Plan identified four strategic economic growth enhancing activities, namely agriculture, manufacturing, logistics and tourism. Agriculture remains the largest employer while manufacturing, logistics and tourism are growing, but slowly. This paper is premised on investigating whether or not there is a causal and long term relationship between agriculture and manufacturing sector growth over the period 1981-2012.

Ascertaining the direction of the relationship is part of the objectives. Analytical methods that were used include unit root, correlation test and a Granger Causality model. With the use of time series data, the results confirmed stationarity of the data. With 31 observations, no causal relationships were established between agriculture and manufacturing in Namibia. Appropriate policy interventions are required to influence how the two sectors should benefit from each other. Such holds potential for both sustained employment creation opportunities and economic growth in Namibia.

Keywords: stationarity; causality; correlation.

1. INTRODUCTION

Namibia is an upper middle income country. The main quest for Namibia is to reduce poverty by means of creating employment opportunities for its citizens. For historical reasons, Namibia became independent in March 1990, making it one among the latest countries to achieve independence in Africa. The country is

sparsely populated and it has a human population size of 2.1million. The economy is modestly growing but it has not created many jobs over the years. The slow worker absorption by the economy has led to a high unemployment rate which currently stands at 27 percent.

Over the years, Namibia's primary sectors have largely exported commodities in raw form. Value-addition is only being emphasized in recent times. Thus the economy is heavily dependent on exports from mining, fisheries and agriculture. This dependency holds very little prospects in a long run which suggests the need to diversify the economy from being mainly an exporter of primary products to one that produces finished goods. The biggest employer among the primary sectors is agriculture while other sectors trail behind it. Mining is the biggest foreign currency earner while tourism is the fastest growing sector. All the sectors are interrelated by the network of logistics. As outlined in the 4th National Development Plan, logistics is one of the crucial sectors that need special attention [1].

It is common knowledge to think that sectors of the economy work together. This means that there should be some interrelationships across various economic sectors. Since agriculture provides raw material to manufacturing, intuition suggests that testing for an existence of a relationship between the two sectors may shed more light on policy interventions needed in the medium and long term.

The objectives for this paper are: to study whether or not there is a causal relationship between growth of agriculture and of manufacturing, and also to determine the direction of the relationship if it exists. The hypothesis that was to be tested is that 'there is no relationship between agriculture and manufacturing'.

2. LITERATURE REVIEW

There are various studies that have tested the relationships between economic variables. Some of the studies applied the methodological approaches that come closer to what was used in this paper. In a study by [2] about financial intermediation and economic growth in Sudan, unit root and cointegration tests were applied. Although his paper did not focus on agriculture and manufacturing, the manner in which the two tests that were mentioned earlier were applied provided some insight for the current paper.

While studying how the agricultural sector is linked to other sectors in Romania, [3] found that industrial growth had a harmful effect on the future course of agriculture, while the service sector stimulated the development of agriculture. [4]

assessed the relationship between exports and economic growth in India using a Granger causality test. The results points to a directional causality which runs from economic growth to exports and vice versa.

In attempting to establish the causal relationship between tourism and economic growth in Sri Lanka, [5] ran a unit root test and applied the Johansen Cointegration test. These two tests were helpful in establishing for stationarity and cointegration. A decomposition test was conducted. The findings are that general economic growth is caused by its own and by tourism, while tourism is only caused by economic growth at home and abroad.

When investigating the causality between exports and economic growth in South Africa, [6] applied a linear granger and found no significant relationship between the two variables. In another study, [7] studied the causality between agricultural output and economic growth in Libya. The granger causality test, together with other techniques was employed in the study. It was found that there was a unidirectional causal relationship between agricultural output and economic growth but only in a short run.

In another study of the relationship between total exports, manufacturing and agricultural output in which the Granger causality model was applied, [8] found that industrial growth caused both growths of exports and of agriculture. Further, growth of agricultural output did not lead to higher growth rates of exports or industry.

When studying to establish the causal relationship between gross domestic product (GDP), agriculture, industrial and services sectors, [9] revealed that equilibrium relationships existed between the sectors. It was found that growth of GDP granger-caused growth of agriculture and vice versa. Industrial sector growth granger-caused GDP growth and vice versa. The same was observed for industrial and services sectors. An unidirectional Granger causality was found to occur from industrial sector to agriculture and also from GDP to the service sector.

Closely similar to [9,10] studied the causal relationship between GDP, agriculture, industrial and service sector growth in North Cyprus and achieved interesting results that point to the fact that agriculture is the back bone of that economy. It is agriculture that feeds the industrial sector with raw materials. However, agriculture in that economy does not stimulate growth of GDP.

Agriculture was found to be an engine for economic growth in various studies in certain countries and those includes studies done by, among others, [10,11]. In developing countries, agriculture was found to be declining in terms of its

contribution to economic growth. A more robust role for agriculture in terms of economic growth was observed across Asian states. The conclusion is that by increasing value addition in the agricultural sector, general economic growth can benefit [11].

A study by [12] to determine whether or not there was a long-run relationship between agriculture and economic growth in Thailand used among others, a Granger causality model. The findings are that economic development stimulated agriculture. It also enlightens that long-term stable agricultural growth is necessary to allow economic development to occur. In Iran, [13] evaluated the relationship between tourism industry and economic growth. Applying a granger causality test proved that there is a mutual causal relationship between the tourism sector and economic growth. Still in Iran, [14] also investigated the relationship between tourism industry and GDP. In this case, a granger causality test was used and it was found that there existed a bi-directional causality between income earned from tourism and GDP.

In India, it was found that agricultural output growth causes imports and exports to grow, while import growth also caused agricultural output to rise. With regards to manufacturing, it came out that growth of manufacturing output and of imports jointly caused exports to increase. Exports and imports jointly caused manufacturing output to rise [15]. This study, however, did not ascertain the relationship between agriculture and manufacturing directly but only via their relations to imports and exports.

An interrogation of Mellor's Law comes to mind here. Mellor's Law provides that as the agricultural sector grows faster, its relative size declines. This notion comes about due to the fact that technological know-how is seen as being more imperative to addressing the challenges of a growing population [16]. It is a contestable argument to have to believe that agriculture will decline after it has grown faster. While this Law is useful, its applicability will vary depending on the country's strategic sector growth priorities.

The literature presented ushers in a schematic view of the various economic components that links well with agriculture and manufacturing in the Namibian economy. Focus is not on all of the arrows but the following: 1, 3, and 5 while other arrows 4, 6-12 only show a wide relationship in the mainstream economy.

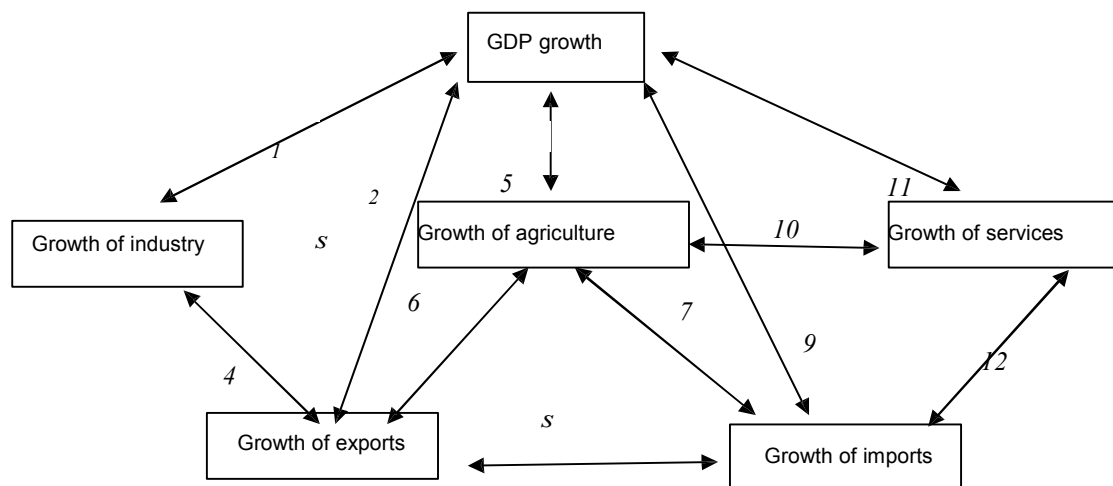


Fig. 1. An overview on the possible causal relations between GDP and its sectors

In Fig. 1 above, the Namibian economy is multifaceted in terms of its economic drivers. Growth in various drivers is imperative to the aggregate growth of the economy which has been referred to as GDP growth. Thus, agriculture and manufacturing are also vital players in Namibia's economic growth path. Existing interrelationships among various drivers which are presented in web-type connections are important in studies of causal relationships.

3. MATERIALS AND METHODS

3.1 Data and Analytical Procedures

The study used annual GDP time series data for the period 1981 to 2012 at 2004 constant prices for both agriculture and manufacturing. The data was obtained from Namibia Statistics Agency. In order to determine whether or not the data is stationary, unit root test was undertaken by means of applying the Augmented Dickey-Fuller (ADF) test. [17,18] used the ADF test in their studies that applied time series data when testing for stationarity. The ADF proved to be a useful tool in that regard. The ADF test was founded by Dickey and Fuller in 1979. In this case, stationarity was confirmed and thus cointegration test became unnecessary.

3.2 Model

Due to lack of empirical evidence which could conclusively indicate sequencing from either direction between agriculture and manufacturing output

growth rates the Granger causality test was performed on the data. The following equations were constructed to establish the growth linkages between the agricultural and manufacturing variables:

$$AgGR_t = \sum_{i=1}^n b_i AgGR_{t-i} + \sum_{i=1}^n \gamma_i ManGR_{t-i} + e_t$$

$$ManGR_t = \sum_{i=1}^n b_i ManGR_{t-i} + \sum_{i=1}^n \gamma_i AgGR_{t-i} + e_t$$

Where:

$AgGR_t$ is agriculture's growth rate variable,

$ManGR_t$ represents manufacturing sector's growth rate variable, and

ε_t is the error term.

4. RESULTS AND DISCUSSION

Using the correlation test (Table 1) to show the association of GDP growth in the agricultural and manufacturing sectors, the results reveals a positive correlation between the two sector GDP growth rates with an $R^2=0.79\%$.

Table 1. Correlation matrix table

	<i>AgGR</i>	<i>ManGR</i>
<i>AgGR</i>	1	0.7921
<i>ManGR</i>	0.7921	1

Unit root test

The ADF test was applied to test for stationarity, but it should be noted that this test provides a test of the null hypothesis of non-stationarity. Table 2 below shows the ADF test results for both Agriculture and Manufacturing output growth rates series. In this case the null hypothesis is rejected with an understanding that the variables are stationary. This carries that the data is integrated in order.

Table 2. The Augmented Dickey-Fuller test results

Variable	Augmented dickey-fuller (ADF) test statistic		
		ADF(L)	CV
<i>AgGR</i>	Level	-5.354670 (0)	-2.960411
	First Difference	-6.704914 (1)	-2.967767
	Second Difference	-5.693543 (4)	-2.986225
<i>ManGR</i>	Level	-5.928171 (0)	-2.960411
	First Difference	-6.491467 (0)	-2.967767
	Second Difference	-5.489849 (7)	-3.004861

Note: L denotes the lag length selected using SIC, and CV denotes critical values at 5% significance level

Due to the existence of stationary that was confirmed in the ADF unit root test, co-integration test could not be done as the time series data were integrated in order. However, the next step was to test for causation using the granger causality test.

4.1 Granger Causality Tes

Table 4. Granger causality results of data for 1980-2012

Null hypothesis:	Lag	Obs.	F-statistic	Prob.	Decision
Manufacturing does not	1	31	0.10133	0.7526	Accept
Cause agriculture	2	30	0.09740	0.9075	Accept
	3	29	0.29970	0.8252	Accept
	4	28	0.39859	0.8072	Accept
Agriculture does not Granger	1	31	0.25854	0.6151	Accept
cause manufacturing	2	30	0.14695	0.8641	Accept
	3	29	0.25381	0.8578	Accept

Causality test results (Table 4) for the data of 1981 to 2012 confirms that the null hypothesis which states that the growth in manufacturing GDP does not granger cause the growth in the Agricultural sector (from lag 1 to 4) was accepted. This means that growth of manufacturing output occur without a direct influential cause on economic output in the agricultural sector. In the same way, it was found that growth of agricultural output does not granger-cause manufacturing output to rise. This came from an accepted null hypothesis which purposed to test whether agricultural growth does not granger cause manufacturing (i.e. lag 1 to 4). Thus there is no causal relationship between the two sector variables.

These findings reflect that although the Namibian economy is spearheaded by relevant policies however, sectoral linkages between agriculture and manufacturing are not that effective to have strong impact on each other. The findings also points to the fact that despite conducting an investigative study of a long term causal relationship among the two sectors, convergence was not found and is thus lacking. Therefore, existing policies are not driving the relationship to an extent of inculcating a multiplier effect on each other. This lack of causality between the two sectors can be attributed to existing policy weaknesses that undermines development in these sectors.

5. CONCLUSION

Literature review has shown that several countries have managed to create positive sectoral feedback loops, and that agriculture can be a dynamizing sector. As years pass, the principle of Mellor's Law may apply but robust policy measures to strengthen the role which the agricultural sector may play in supporting manufacturing and vice versa will highly be needed. Given the empirical evidence that there is no causal relationship between the growths in agriculture and manufacturing sectors, Namibia has to work on ensuring that sectoral economic policies are coordinated in a manner that national economic growth is stimulated.

Since agriculture comprises of both crop and animal production, it is expected to contribute more raw materials to manufacturing than it does currently. Manufacturing should also be structured in such a way that it does not only draw more on the production resources from agriculture but that it should also become a supplier of needed inputs to the agricultural sector. Going it this way can offer better scope for proper economic planning and attainment of reasonable sector growth, holding all other things constant.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Assessment the Impact of Zakat on Aggregate Consumption and Poverty: Evidence from Egypt

ABSTRACT

This study aims at investigating the impact of Zakat on aggregate consumption and poverty alleviation in Egypt. To achieve this, the study presents the concept of poverty and the strategies of poverty alleviation in a conventional economy, and then discusses the concepts of poverty in Islam and the ability of Zakat to eliminate poverty in the Muslim community. The most important results are the potential Zakat collection in Egypt cannot eradicate poverty from the Egyptian economy and the other types of charities may play an important role in eradicating poverty in Egypt. The study recommends the need to pass legislation that requires the collection of Zakat from different sectors, organizations and institutions as well as individuals. Finally, the study emphasizes the need to voluntary charities as complementary tools in poverty eradicating. The study recommends also the Egyptian government to monitor and control the processes of collecting and distributing Zakat where the more directed to the poorest eligible (first of the eligible categories), the greater the effect on consumption then on poverty.

Keywords: Zakat; aggregate consumption; poverty alleviation; Egypt.

1. INTRODUCTION

At the 2002 Johannesburg Summit, the report of the Secretary-General of the United Nations indicated that 15% of the world's population consume 54% of world production, while 40% of the poor in low-income countries consume 11% of the total world production, and that the poverty rate reached 23 percent in 1998 on the grounds that the minimum income to the poverty line equals to one dollar a day, and that there are 1.2 billion people living below the poverty line, and there are nearly 1.1 billion people do not have access to safe drinking water, 2.4 billion people have no access to proper sewer system services, and that 113 million children in developing countries, more than 60% of them are females, and finally in some of the poorest

countries, one of every five children dies under the age of five. In some countries with high human development, the life expectancy at birth reached rates 79.6 years, 78.5 years, and 74.5 years in Norway, the United Kingdom and Bahrain respectively, while the same indicator stands at 56.5 years, 56 years and 43.3 years in Sudan, Senegal and Nigeria respectively, and school enrollment rate recorded 100% in Norway and 39.4% in Senegal [1]. Human development report shows that HDI value for Arab states, East Asia and Pacific, Europe and central Asia, and least developed countries are 0.588, 0.643, 0.702 and 0.386 respectively. It reports that dropout rate in Arab states, Latin America and the Caribbean, and South Asia are 9.5, 17.8, and 24.1 respectively through the period 2005 – 2008 [2].

Poverty is a global phenomenon prevalent in all countries of the world, but with varying degrees, however, economists, socialists and politicians always tried to define the meaning of a poor person, by identifying the so-called poverty line, and then the person is said to be poor if his income level falls below the income level of the poverty line. Fig. 1 shows the percentage of people who get less than two dollars per day, assuming that the poverty line is two dollars per day. The table Records that about 93% of the population of East Asia and the Pacific region received less than two dollars a day in 1981, but this percentage decreased gradually during the period 1981 to 1996 to roughly record 69% in 1981 in low-and middle-income contries, and kept declining to reach almost 58% in 1996. The same ratio fluctuated in the Africa sub-Saharan countries during the same period.

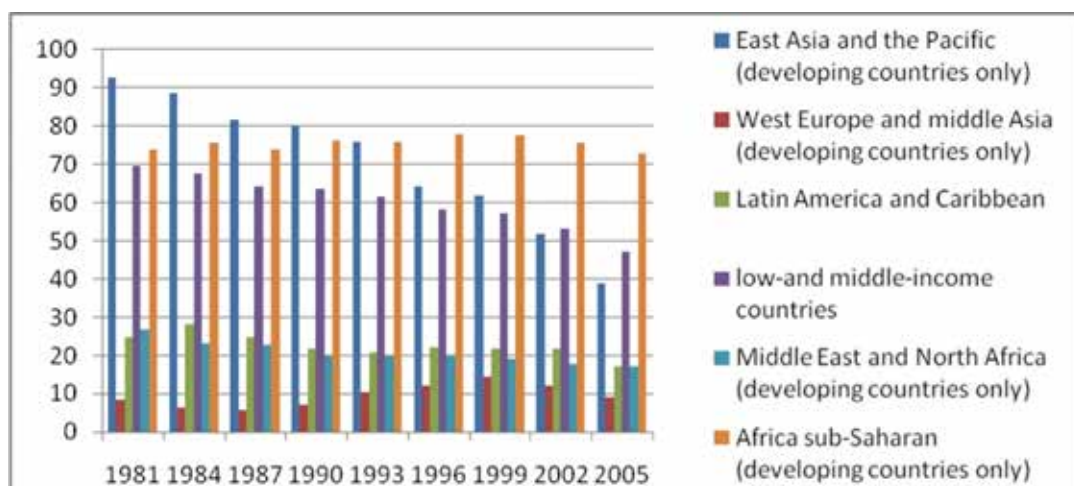


Fig. 1. Percentage of population who get less than US\$ a day (1981 – 2005)

Source: UNDP, Human Development Report 2006

As for the Arab countries, the study carried out by the social sector in the Secretariat of the League of Arab States found that the total number of poor below the poverty line (two dollars a day) is about 78.6 million people in twelve countries namely Jordan, Tunisia, Algeria, Djibouti, Sudan, Somalia, Palestine, Lebanon, Egypt, Morocco and Yemen [3]. With regard to human poverty in the Arab, such countries could be split into four main categories: countries with low human poverty like Bahrain and Jordan; countries with medium human poverty like Syria, Lebanon, Libya, Tunisia, Saudi Arabia, Kuwait, Qatar and the UAE; countries with high human poverty like the Sultanate of Oman only and, finally, countries with very high human poverty which include Egypt, Sudan, Yemen, Morocco and Iraq [4]¹.

In sum, poverty is a phenomenon afflicts the majority of countries around the world, and despite the large number of studies and researches that have been made to explain this phenomenon and provide strategies to eradicate it, but these solutions have failed for various reasons. Now, does Islam offer a viable solution to eliminate poverty? On this basis, the objectives of the research are to show that for the Muslim community to conduct Zakat as was commanded by God the almighty would put an end to poverty in the community, which was failed to be done through policies and practices adopted by governments and nations in the conventional economies. The current study consists of seven sections. After the introduction, the author reviews, in details, the literature related to Zakat, macro consumption and poverty and Zakat issues. In sections three and four, the study shows the concept of poverty and strategies to fight poverty in the conventional economy. Section five is devoted to present the concept of poverty in Islam and shows the role of Zakat in eradicating poverty in the Muslim communities. In section six, the consumption function in Egypt is formulated and estimated to analyze the effect of Zakat on consumption and poverty. Finally, in section seven, the author displays the conclusion and policy implication.

2. LITERATURE REVIEW

In this section, the study focused on the previous literature that related to Zakat and poverty alleviation.

¹ Some people decide that the spread of corruption and marginalization in the Arab countries are key factors in the spread of poverty and inequitable distribution of income and wealth in those countries, see [7].

2.1 Zakat and Poverty Alleviation

Ahmed [5] investigates the role of Zakat and Awqaf institutions in poverty alleviation at the macro-level and explains the appropriate institutional framework of Zakat and Awqaf to achieve the potential funds of Zakat and Awqaf collections. The study estimated the potential of Zakat collection and resources required for poverty alleviation for a sample of 24 IDB member countries. The study divided the sample into two groups and used a simple approach for estimating the required Zakat collection for poverty alleviation. The study assumes that transferring US\$ 1 per day to a poor person in group 1 will move that person beyond the poverty line and US\$ 1 transfers to people with an income above US\$ 1 will bring them out of poverty according to S2 measure of poverty. Transferring \$1 to people whose income is less \$1 will move them up the \$1 poverty line but still keep them in group 2. Shirazi, and Amin [6] drew two shortcomings on Ahmed's [5] study, i.e., first, the study assumes that every poor person has an income of zero and this is not true, where some of the poor people have money but is less than \$ 1. The study used the poverty gap index instead of the poverty line for estimating Zakat and Aqwaf amount required. Second, the study did not make distinction between Muslim and non-Muslim population for the estimation of potential Zakat. To calculate the total amount required for poverty elimination for a country, the study first calculated the poverty gap index then secondly, the study rearranged the calculated poverty gap index to get the absolute resources shortfall of a country. The study estimated the resource required by 38 OIC member countries and the potential Zakat collections for poverty alleviation after dividing Zakat into the three categories conducted by Kahf [8] who estimated Zakat collection for eight Muslim countries by using National Income Accounts. Hassan [9] presents a model for integration of Zakat and Awqaf for poverty alleviation as a micro finance tools. The study started by defining poverty in a conventional economy. Then the study classified the anti-poverty programs into two strategies: (1) Indirect strategies, which deal with macroeconomic policies for enhancing economic growth, reducing unemployment, increasing per capita income, and achieving the objective of eliminating poverty. (2) Direct strategies which deal with policies for assisting the poor in the economy through providing assistance to ensuring credit access, improving education and health. The study distinguishes among three approaches for poverty eradication in Islam: (1) Positive measures which include income growth, functional distribution of income, and equal opportunity.

(2) Preventing measures through controlling over ownership and preventing malpractices. (3) Corrective measures by redistribution of income and wealth in favor of the underprivileged population through compulsory transfers (Zakat), recommended transfers (charity), and state responsibility. The study shows how Zakat can be used to alleviate poverty. The study also classified Awqaf into three types: religious Awqaf, philanthropic Awqaf, and family Awqaf. He explains the weakness of traditional Zakat and Awqaf management. Hassan briefly discussed nine weaknesses of conventional micro finance then introduced the full framework of a model of integration of Zakat and Awqaf to eliminate poverty in an Islamic community. Mahmud et al. [10] investigated the role of Masjid Council for Community Advancement (MACCA) in Bangladesh in alleviating poverty. They showed full description of MACCA objectives and its programs. To assess the impact of MACCA programs on the living standard of MACCA's beneficiary, they collected data by questionnaire from the beneficiaries of Hasana program. They focused on three factors of the living standard: income, expenditure, and saving. The authors results stated that the amount of Zakat provided to MACCA beneficiary failed to create significant effect on the household income, expenditure, and saving. Febianto et al. [11] analyze the impact of Zakat programs in Indonesia. Patmawati [12] studied the role of Zakat in reducing income inequality and poverty in the state Selangor, Malaysia. She used Lorenz curve and Gini coefficient for this purpose. The results showed that with Zakat Lorenz curve moved closer to the perfect equality line compared to the Zakat Lorenz curve before. Nuraman [13] examined the utilization of productive-based Zakat experimental program conducted by Zakat organization for poverty alleviation in Indonesia. He used United Nation Agency for Development index which is known as Human Development Index (HDI) to measure the utilization of the program. The main result of his study is that the average HDI Zakat-receiver is lower than the average HDI both in Jakarta and at the national level. Yaumidin [14] uses the methodology employed by Ahmed [5] to estimate the resources needed for poverty alleviation and potential Zakat collection for Malaysia and Indonesia. According to Mohamed and Rahim [15] Zakat acts as a unique measure vouchsafed by Islam to abolish poverty. In a descriptive study, they investigated the role of Tabung Baitulmal in reducing poverty through Zakat in Sarawak, Malaysia. They recommended that the Zakat recipients must be informed about the aspirations of Zakat as a socioeconomic tool and held accountable for accepting the funds.

2.2 Zakat, Poverty and Income Inequality

Bourguignon [16] investigates the dynamic of poverty in the macroeconomic context in terms of the triangle of “poverty-growth-inequality”. His analysis emphasized the relationship between poverty and income distribution on one side, and the effects of growth and distribution of income and its changes on poverty on the other. Improving distribution of income leads to poverty reduction. The economic growth may affect the primary distribution of income. He formulated the change in poverty as a function of growth, distribution, and change in distribution. The hypothesis of Poverty-Growth-Inequality Triangle (PGIT) is examined by Grammy and Assane [17]. Their sample consisted of 66 countries and three time periods of 1970-79, 1980-89, and 1990-98. The results showed that improvement in income distribution reduced the absolute poverty. However, growth and distribution reflect insignificant effects on poverty reduction. But using variable capturing the interaction between growth and distribution, the effects become significant and positive. That means growth accompanied by improvement in income distribution works better than growth and distribution alone. Ahmed [18] investigates the role of macroeconomic factors and Zakat in affecting income distribution and poverty alleviation by using some simulations on Bangladesh. He analyzes the macro and micro dimensions of poverty then he formulated the income sources. He distinguishes between productive Zakat which is for investment purposes and non-productive Zakat which is for consumption purposes. He showed the micro and macro strategies of poverty alleviation. His methodology stands on putting some assumptions and running some simulations. Results stated that Zakat is an important tool for poverty reduction in Bangladesh. The impact of Zakat on poverty can be more effective if: (1) Zakat is complimented by macroeconomic policies that enhance growth and redistribute income in the favor of the poor and (2) larger amount of Zakat funds should be transferred to productive purposes.

2.3 Zakat, Consumption and Consumption Function

Khan [19] starts his derivation of the macro consumption function in an Islamic framework by dividing the consumer expenditures into consumer's own worldly spending, E_1 , and consumer's spending in the way of Allah, E_2 . Based on the Muslim behavior and rational spending according to Islamic instructions, Khan put the consumer total spending equation to include both spending then he derived the consumer utility function as, $U = F(E_1, E_2)$, with the income constraint $Y = E_1 + E_2$. He assumed that the utility function has the following properties: 1 - The marginal

utility of E1 is positive, 2 - The marginal utility of E1 declines as its volume increases, and 3 - The marginal utility of E2 is positive constant for an individual with a specific God-consciousness. E2 will be done by people who can afford it. In Islamic terminology, this part will be spent by the owner of Nisab (the rich) to those who not the owner of the Nisab (the poor). This leads to two types of consumers in the Islamic society according to giving or taking the Nisab: the receiving and the payable consumers of the Nisab. The consumption of the first consists of his lower income and the transfers he is receiving (E2) as $CL = YL + E2$, where $E2 = F(a, Y_u)$, $a = F(T)$ and $E1 = C_u + S$, where Y_u is income of the upper level income (transfers payer), C_u is his consumption and S is his savings. The consumption function of the transfers payer can be written as: $C_u = (1 - o) F(E1)$, where $oD = G(T)$. Tagel-Din [20] reported that the two types of spending should be treated in commodities rather than money values, so that the income function should be written as $Y = P1 E1 + P2 E2$ instead of what Khan has done.

Tagel-Din reported as well that assumed assumptions of the second part of spending, E2, should be different than those for the first part, E1. Tagel-Din introduces the utility function with his assumed assumptions as: $U = F(E1) + a E2$. Then Tagel-Din concludes that the utility function represented by Khan as a base of macro consumption function does not reflect the behavior of a genuine Muslim consumer for several reasons, but the main one is assuming higher levels of taqwa are inconsistent with spending in the way of Allah. Finally, Tagel-Din did worry about the possibility of transferring Zakat-receiver to Zakat-givers and mentioned that this possibility depends on "substitute effect" and "income effect" and asked to future research to clarify this point. But from our side, I think the treatment is in short-run and is under the static analysis, and this transformation would need longer time to be done. Hasan [21,22] did mention some pertinent weaknesses of Khan constructed macro-consumption function. The most important weaknesses are: the first is related to the concept of a rational consumer, stating that the consumer rationality means that the consumer will distribute his income among various uses in such a way to maximize his satisfaction. Second is related to the concept of hoarding. In the modern economics, the rational consumer will not hoard his wealth. On contrary, the Muslim consumer can hoard his wealth after paying the Nisab every year. The Nisab will spur the Muslim to push his hoarding back into the circular flow of money. Hasan contradicts reversing the two positions in secular and Islamic situations by Khan. Third, Khan stated that paying Zakat will induce Zakat-payers to put the major part of

their saving into investment. Hasan reported that spurring a Muslim to invest his savings is the anti-hoarding injunctions of Islam not the Zakat institution. Forth, Khan states that, under the same circumstances, the consumption basket of a Muslim will be smaller in general and the savings will be larger, than that of a secular consumer, which is accepted by Hasan; but Hasan has doubted about Khan's elaborate structure to reach the said conclusion. Hasan counts three factors affect the division of a Muslim's income between E1 and E2 uses, and between consumption and savings for E1.

These are (1) obligatory Zakat, Z, additional charity, Z1, and the fear of Allah, T. The first two factors affect exclusively on E1 whereas the third has a dual role in both E1 and E2. If T encourages E2 spending, it must reduce savings out of a given income. On the other side, if T helps shun israf, it must enhance the components of saving in E1. That means T pulls savings in the opposite direction and their net cannot be predicted. In his paper, Hasan [22] added two important issues related to the macro consumption function. First, he stated that if the marginal propensity to consume of the rich people in the Islamic consumption function is equal to the marginal propensity to consume in the secular consumption function, consumption under Islamic allowance would tend to rise at the cost of savings. Second, he concluded that Zakat or tax as a charge on income of the people leads to raise the marginal propensity to consume in any economy. However, considering the marginal propensity to consume constant with imposing tax or Zakat is understandable for the short-run perspective.

Mahdi [23] also worried about the concept of rationality as pointed by Khan. Mahdi also commends about Khan's distinction between E1 as spending to achieve satisfaction in this world and E2 as spending for earning reward in the hereafter. Mahdi stated that a Muslim is always a Muslim, when he spends on both E1 and E2. Consequently, he rejects the relationship between God-fearing and total spending on E2 as Khan pointed in. Mahdi emphasizes that the spending in the way of Allah depends on many factors like income size, family size, personal and family needs and it does not depend on the God-fearing. Mahdi criticizes as well what may be understood from Khan's discussion that the Muslim should earn more money to increase his spending on E2 and Zakat and charity are the only ways to earn reward in the hereafter. Iqbal [24] introduced a review of some of the writings in the consumption function and Zakat area. To do so, he advised to not start with the same equation of consumption in a secular economy as: $C_S = a + b Y$, and then bifurcate

it for Islamic economy because this equation includes one marginal propensities to consume of both groups: Zakat-payer and Zakat-receiver. Instead, he first divided the consumer in an Islamic economy into two groups: Zakat-payers (group 1) and Zakat-recipients (group 2). The marginal propensity to consume for group 1 is different from that for group 2. The consumption function in Islamic economy, therefore, becomes: $C_1 = a + b [D Y - D Y] + c [(1 - D) Y + D Y]$, where b and c are marginal propensity to consume of group 1 and 2 respectively. DY is income of group 1, $(1 - D) Y$ is income for group 2, and DY is the amount of Zakat paid. From this equation, Iqbal assumed that a Zakat-receiver is able to save out of his/her income, one more issue is Iqbal assumed, incorrectly, that is payable on Y but in fact it is payable on $D Y$. The consumption function should be corrected to: $C_1 = a + b [D Y - D D Y] + c [(1 - D) Y + D D Y]$ [22]. Iqbal accepted the two assumptions that are assumed by Metwally [25] which are: 1 - marginal propensity to consume of the Zakat-receiver is higher than that of the Zakat-payer. And 2 - there are enough poor in the Islamic society to receive Zakat. Iqbal correlated between the positive effect of Zakat on aggregate consumption and marginal (and average) propensity to consume and degree of inequality in the income distribution and stated that if the Zakat is transferred to absolutely poor persons, the effect on aggregated consumption be considerable. The effect of Zakat on aggregate consumption can be calculated by the difference between marginal propensity to consume of the Zakat-receiver and marginal propensity to consume of the Zakat-payer, multiplied by the amount of net transfer to the poor. The author concludes that in the short-run, Zakat has a positive effect on aggregate consumption even if by a small magnitude which is rejected by Darwish and Zain [26].

In the long run, marginal propensity to consume may or may not decline because of increasing income due to the effect of Zakat on investment. To find the effect of moderation on aggregate consumption, Iqbal considered f refers to *israf* (extravagance) and *tabdhir* (squandering) and he finalized that the effect of both Zakat and moderation on aggregate consumption depend on the values of $(d-c) D$ and $cf (D - D)$ and stated as well that the net effect of Zakat and moderation on marginal propensities to consume of Zakat-payer and Zakat-receiver depend on these values as well. Iqbal has made the same error of considering zakat to be payable on Y not on $D Y$. In his paper about the general equilibrium and macroeconomic policies in an Islamic economy, Metwally [25] analyzed the effect of Zakat on consumption and formulated the consumption function for that purpose.

There is no big difference between his analysis and what are written beyond. The main point in his paper is starting an analysis assuming that marginal propensity to consume of Zakat-receiver is higher than that of Zakat-payer, and he formulated the consumption functions in two ways: once as a linear function and as a non-linear one. He concluded that Zakat affects consumption by increasing both the intercept and the slope of the function. His paper is criticized by many writers [26, 27, 28, 29].

The main contribution comes in Abdallah's comments [29] which is related to dividing the population into only two categories; Zakat-payer and Zakat-receiver. Abdallah explains that there is a third category of people who neither receive nor pay Zakat because they are not eligible to, which makes them neither receiver nor payer. Abdallah suggested that people should be divided into the three classes. Consequently, income and marginal (and average) propensities to consume should also be divided into three for the three categories. He introduces a new consumption function as: $C = a + s \times Y + b Y (1 - x m) + h m Y + b n m Y$, where a is the intercept, s refers to the marginal propensity to consume of the category neither receives nor pays Zakat, b is the marginal propensity to consume of Zakat-receiver, h is the marginal propensity to consume of Zakat-payer. Where $b \geq s \geq h$, mY is the Zakat-payer income, nmY is the Zakat amount, xY is the income of the category neither receives nor pays Zakat, and $Y (1 - x m)$ is the income of Zakat-receiver. Among their comments on Metwally's paper, Darwish and Zain [26] stated that Zakat may affect consumption function by increasing its slope with the constant of the intercept.

From the above discussion, consumption function in an Islamic economy and the affect of Zakat on consumption and then on Islamic economy can be concluded in the following points:

1 - The Islamic community population should be divided into three categories; Zakat-payer, Zakat-receiver and niether Zakat-payer nor Zakat-receiver.

2 - The national income in the Islamic community should also divided into three parts of the three categories mentioned above.

3 - Marginal (average) propensity to consume affected by two opposite effects; zakat and moderation (avoiding israf) and they work in the opposite direction of each other. So, in the short run, Zakat may increase or decrease but in the long-run, its statutes can not be predicted.

4 - Zakat has an effect on poverty and this depends on the net transfers of Zakat funds to its eight categories with a very high priority to the poor and needy.

5 - Literature is using the static analysis. Consequently, they do not deal with the possibility of transferring of some Zakat-receiver to Zakat-payer or even to the third category neither payer nor receiver of Zakat.

3. THE CONCEPT OF POVERTY IN CONVENTIONAL ECONOMY

There are many concepts of poverty. The objective definition of poverty means establishing the level of income or expenditure that separates the poor and non-poor and is called the line of income, which is the minimum level of income necessary to spend on food and non-food items to the individual or the household. The self-definition of poverty measures poverty from the perspective of the poor themselves. The World Bank defines poverty as the inability to provide a minimum standard of living [30]. In spite of the difference between the concept of poverty and the concept of income distribution, but both affect each other significantly, as weak mechanisms for the equitable distribution of income inevitably leads to increase the number of the poor and the spread of poverty. Absence or reduction of poverty has a positive impact on income distribution [31].

3.1 Strategy to Fight Poverty in Conventional Economy

Countries practice many policies to affect poverty. Those policies include a package of price policies, income and wage policies, labor market and production policies, as well as a package of policies that are characterized by specific programs and strategies such as structural adjustment programs and economic stabilization. Those policies exercise their impact on poverty directly and indirectly. Direct impact comes through government's use of employment policies, and subsidies to influence the income of workers in the formal sector. The indirect impact of these policies comes through the use of policies affect demand and supply. The World Bank provides three approaches to fighting poverty [30,32]: the first is to strengthen economic growth, which calls for procedures and policies that increase employment, especially for the poor.

Those policies include encouraging small and medium businesses, support rural development and the agriculture sector and increase the flow of investment in the poorer areas, but experience has shown that effects of such policies has been limited. The second approach is through human development, which means increased investment in human capital to enhance the production of the poor in the economy; this requires increased spending on education, training and health and

requires the provision of adequate food and health for the poorest. Such policies aim at reducing dropout rates, increase the efficiency of public spending in the field of literacy, support infrastructure in the area of health, extend health insurance to include the poor areas, provide clean water and sanitation to poor areas, support civil society institutions, increase decentralization and participation in political life. But those policies conflict with the deflationary policies that form the pillars for the economic reform programs supported by the international monetary Fund and the World Bank, as well as low public investment in general in these countries due to lower public revenues available. The third approach is through social welfare, which depends mainly on the transfer payments for the benefit of the poorer classes in society, which aims at providing support to include all needy groups with guaranteed access for support. Again, this approach is contrary to policies of economic reform programs.

In sum, the strategies proposed by the World bank - internationally responsible to fight poverty - are marred by a lot of shortages and even conflicts with each other, they are demanding an increase of government spending to support the poor, increase transfer payments, follow the policies of price discriminations in the health sector and increase public investment to push the economic growth, particularly in rural areas. All those strategies are contrary to the general characteristics of the capitalist system which control the economic reform programs imposed on the countries required to follow strategies for fighting poverty. Consequently, the final results confirm the weaknesses of those strategies.

3.2 Concepts of Poverty in Islam

In this part, the concepts of poverty in Islam, and then how the Zakat, as one of the pillars of Islam, can eliminate poverty [33].

3.2.1 What does poverty mean in Islam?

Islam urges people to go for the legitimate (HALAL) productive work and consider that the best way to make money, as God almighty said, and when the Prayer is finished, then may be disperse through the land, and seek the Bounty of Allah. And celebrate the Praises of Allah often (and without stint): that may prosper. (Al-Jumaa, verse 10 as well as many of the prophet's sayings (Hadith) that urges people to work, like "the best earning for a man is what he makes with his hands and whatever a man spends on himself, his sons and his servants is charity" (way of

Sunan Ibn Majah, chapter of motivation to gain, № 2137). Also the Holy Prophet said that "the best food eaten by a man is from the work of his hands, and that Prophet of God David was eating from the work of his hand" (Fath-albari to explain Sahih Al-Bukhari, Ibn Hajar, book of sales, chapter of earning of the man, section 9, p. 154). The basic principle in Islam is for the man to eat from a legitimate productive work to fulfill his needs through the exploitation of his energy and potential no matter how modest they were.

Islam forbids beggary, except for three cases: extreme poverty, or the debtors or those fined due to blood money. Begging without an urgent need is illegitimate (HARAM) in Islam. The Prophet (peace be upon him) said "he who ask people for their money to grow his money is just asking a firebrand, so he might ask for more or less", (Muslim Saheeh, the chapter of hatred of Begging, section 2, p. 720).

However Islam acknowledges poverty and considers it a danger to the family and the society as a whole, Islam also considers poverty as scourge and we should seek refuge in Allah from its evil. The Holy Prophet used to seek refuge saying "O Allah, I seek refuge in You from the trials of fire, torment of the grave, and seek refuge in You from the temptation of wealth, and seek refuge in You from the trials of poverty also the Prophet" (peace and blessings be upon him) used to pair seeking refuge from poverty and disbelief saying "O Allah, I seek refuge in You from disbelief and poverty, I seek refuge in You from the torment of the grave, there is no god but You". (narrated by Abu Dawood). Poverty in Islam means need or want, God Almighty says "O mankind, you are those in need of Allah" in the sense you are in need of God. God also said "and God is rich and you are the poor who need him" in the sense of the need for the necessities of life. Islam differentiates between the poor and needy, the poor is who have what is not enough, the needy is who have nothing to take shelter with. Islam also distinguishes between different types of poverty, relative poverty means variation of people's income which is recognized as a universal norm due to the varying capacities of individuals and the amount of efforts they put in their work, God almighty says, "And it is He who has made you successors upon the earth and has raised some of you above others in degrees [of rank] that He may try you through what He has given you" (165, al-Anaam), also God almighty says, "Do they distribute the mercy of your Lord? It is We who have apportioned among them their livelihood in the life of this world and have raised some of them above others in degrees [of rank] that they may make use of one

another for service. But the mercy of your Lord is better than whatever they accumulate" (32, Zukhruf).

The goal behind the variation in livelihoods is tribulation, dedication of work and order to set life straight, people vary in their abilities, their skills and efforts, and then their works, revenues and incomes. Then there is class Poverty which means the inability of the individual to satisfy his needs, in other words, the inability to achieve sufficiency. Sufficiency means the necessary money to provide the basic needs of the individual, to set his life straight and live according to the prevailing living standards, hence sufficiency is a dynamic concept that changes from one society to another and from time to time within the same society. For the Muslim community to live in harmony, peace and security Islam imposes many forms of mandatory and redundancy worships to reduce poverty in the Muslim community on the one hand and to ensure full security between rich and poor on the other, in order to ensure minimum standard of living for the poor, which guarantees them sufficiency.

3.2.2 The role of Zakat in eradicating poverty

In this part, the author tries to demonstrate that Zakat is an important tool, if performs as it should, can eliminate poverty in Muslim societies.

3.2.2.1 The objectives of Zakat

God almighty imposes Zakat, as He says "So establish regular Prayer and give regular Charity; and obey the Messenger that ye may receive mercy", (Al-Nur, verse 56). From Zakat many effects are resulted on the individual and society, it cleanses the heart of the one who performs Zakat and removes rancor and hatred from the heart of the one who deserves Zakat, and then establishes security and tranquility in the community, and addresses many other social problems. In addition, Zakat blesses and develops the money and increases the merits of the performer. God almighty said, "The parable of those who spend their substance in the way of Allah is that of a grain of corn: it growth seven years, and each ear Hath a hundred grains. Allah gives manifold increase to whom He pleases: And Allah cares for all and He knows all things". (Al Baqara, verse 261). Objectives of Zakat are many; those can be summarized into moral, social and economic objectives. The moral objective is visualized in cleansing of the Zakat funds; the social objective is visualized in the redistribution of income in favor of the eight social groups especially

the poor and needy. The economic objectives is visualized in fighting hoarding and moving the cash flow to support the necessary expenditure at the expense of luxury spending, fighting consumer loans and encouraging non-usury loans for those in bondage or heavily indebted (AL GHARMEEN).

3.2.2.2 Compulsory Zakat

Islam identifies Zakat as one of the five pillars. Muslim must pay Zakat as long as its two conditions: the required amount of money/wealth (Nisab) and the time period the money/wealth existed (Al Hawel). The Holy Qur'an determines the certain ratios of Zakat on different types of assets and incomes.

3.2.2.3 Can Zakat eradicate poverty?

Zakat plays an important role in reducing the problem of poverty in the Muslim community, in addition to its vital and influential role in its development through redistribution of income and wealth for the benefit of the poorest. The main important issue is that, Zakat will not be accepted by God unless they were from a good legitimate source (halal), the Prophet (pbh) says: "God the almighty only accepts charity from good money, and a charity from a good source given by a man would be accepted and developed by God as if someone is developing and caring for his foal.

But the important question now is: is performing Zakat alone in the manner intended by God Almighty sufficient to achieve these two objectives: eradication of poverty and the achievement of equal distribution? We try to answer this question through the following points:

First of all, The Zakat - If performed as imposed by God Almighty - would be enough to eradicate poverty in Muslim societies. It is sufficient to note that the financial assets in banks for the wealthy Arabs their number is estimated at two hundred thousand - is more than 1190 billion dollars [34], and then value of Zakat levied on those amounts is 29.8 billion dollars. These amounts are capable of eradicating poverty in Arab countries, and create employment opportunities for the unemployed in all Arab countries. Therefore following the principles of Islam through one pillar only (Zakat) can guarantee the eradication of poverty and then income and wealth inequality in Islamic communities.

Islam has exclusively determined the eight groups to whom Zakat funds could be given, and it is noted that these groups are the poorest in society, consequently, expenditure on necessary consumption increases thus increasing the aggregate demand in the community. Employers respond to this increase by increasing employment and production in the next stage which increases income. Depending on the income, a new cycle of increased demand and employment, production and income starts and so on. Due to spending multipliers in the community, income will be multiplied accordingly, and the national economy will be revived. On the other hand, the marginal utility of money for the rich is lower than that of the poor, and therefore the latter will be keen to spend Zakat funds received to purchase the necessary goods only as already mentioned. Also increased spending leads to increased marginal propensity to consume in the community, thereby increasing the value of the multiplier, and then increase the strength of its effect on the national economy.

One of the forms of giving Zakat is to the indebted (AL GHARM). AL GHARM is a person who cannot meet a debt he has which is not the result of sin or wrong doing, this form also include a person who lost his business, his factory or his goods. Hence the direction of Zakat to them means to re-integrate them into the production process, and hence the community will continue to benefit from them and the production is not affected by their circumstances².

Since Zakat was imposed on saved money, the lack of investment of such money leads to erosion year after year which is an irrational behavior that Islam does not approve, so 'Umar ibn al-Khattab said (Do trade in the property of orphans so as not to be eaten by Zakat)³. Also holding the money and not performing Zakat on that money is forbidden in Islam. Thus, the saved money would move into investment which would benefit the community, through the revitalization of demand and production and then employment and income. Metwally [25] stated that because of Zakah, the demand for investment will always be higher in an Islamic economy than in a non-Islamic one at any level of expected profit rate. Investment in an Islamic economy can take place even if the expected profit rate is zero and positive. The

² Mujahid said - a Mujahid bin Jabr Al Imam Sheikh of readers and commentators - in share of debtors: "debtors are Three: A man flood wipes his money, a man fire went away with his money, and a man with children and no money, he is indebted and spends on his family" and this year we don't exempt someone lost his investment and lost his money, or someone who borrowed for investment business and lost for one reason or another".

³ "See Imam Malik bin Anas al-Muwatta, number (588), (10312), the Arab Book House, Beirut, 1988" [35].

expected profit rate is as: $r = D / (D - 1)$ where D is the rate of Zakat on idle assets and D is the rate of Zakat on net returns.

Zakat-payer must go to where there is Zakat-receiver to give him his due, and here is where the greatness of Islam is shown, this consolidates in the owner of the money that there is a due to be paid and he needs a Zakat-receiver to give him this right, on the other hand, it saves the face of the person entitled to Zakat. And economically, this means the absence of evasion from payment of Zakat as is the case of tax, and also eliminates the expenses of collection.

Zakat may be required to pay when needed, for example, the payment of Zakat may be asked to pay in the case of economic recession, which will help to avoid recession through payment of debts, production, employment and income. It is also allowed to pay the full Zakat in one of its eight forms to ensure the achievement of its objectives.

Zakat does not remove once you do it for one time, but it remains mandatory as long as its two conditions: the required amount of money and the time period exist. Also the diversity in Zakat forms means that it could be performed throughout the year.

4. ZAKAT AND POVERTY ALLEVIATION IN EGYPT

In this part, the study displays the poverty in the Egyptian economy, estimation the potential Zakat collection in Egypt, formulate the consumption function in Egypt, then uses some simulations to find the impact of Zakat and consumption on poverty alleviation in Egypt.

4.1 Poverty in the Egyptian Economy

Table 1 records poverty headcount of 19.37%, 18.46% and 15.43% of total population in years 2000, 2005 and 2008 respectively. Poverty level is defined as an income level of US\$2 per day. These figures will change to 1.81%, 1.99%, and 1.69% in the same years respectively if the poverty income level decreases to US\$1 per day. The share of the lowest 20% people of total population in total income rises from 8.95% to 8.96% then to 9.24% during the same period of time [36].

Table 1. Poverty in Egypt 2000-2008

Year	GDP per capita US\$	Income Share held by						Poverty headcount (% population)	
		Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%	Lowest 20%	US\$ 2 /day	US\$ 1.25 /day
2000	1476	12.47	15.83	20.65	42.1	28.34	8.95	19.37	1.81
2005	1209	12.64	16.05	20.89	41.64	27.62	8.96	18.46	1.99
2008	2079	13.02	16.37	21.03	40.34	26.58	9.24	15.43	1.69

Source: World Bank [36].

4.2 Estimation the Potential Zakat Collection in Egypt

Egypt's population consists of Muslim and non-Muslim population. There is no formal information about the exact number of non-Muslim population in Egypt. For estimation of the potential Zakat collection, we divided the population into three groups; Zakat-payer, Zakat-receiver and neither Zakat-payer nor Zakat-receiver. We consider any individual in the highest 20% of total income bracket as Zakat-payer, people under poverty line of US\$2 per day as Zakat-receiver, and the others as neither Zakat-payer nor Zakat-receiver. The study calculated headcount of each group by multiplying the correspondent ratio of a group by total population. Then the study calculated the Zakat amount can be collected by multiplying the total income of Zakat-payer by Zakat rate. The estimated potential Zakat were US\$ 1050.8 million, 933.6, and 1642 million for years 2000, 2005, and 2008 respectively. The potential Zakat as percentages to GDP were 1.05%, 1.04% and 1% for years 2000, 2005 and 2008 respectively. Zakat-receiver is determined as a poor, whose income falls within poverty line of US\$ 2 per day and a Zakat-payer belongs to the highest 20% of total income bracket. Both people are not included in the previous two groups and Non-Muslim people are included in neither Zakat-payer nor Zakat-receiver group. From Table 2, Zakat does not enough to eradicate poverty in the Egyptian economy (as shown in the last column in the table). Zakat contributes by US\$ 0.233, 0.196 and 0.387 per day in years 2000, 2005 and 2008 respectively and this not due to transfer the poor to be non-poor. In this situation, voluntary charities may play an important role in alleviating poverty in Egypt.

Table 2. Contribution of Zakat in eradicating poverty

Year	group share in total population (million)			Potential Zakat collection (million US\$)	Zakat Collection % of GDP	Per capita Zakat received (US\$)	Per capita Zakat received per day (US\$)
	Zakat-payer	neither Zakat-payer nor Zakat-receiver	Zakat-receiver				
2000	12.77	38.95	12.37	1050.8	1.053	84.95	0.233
2005	14.15	43.86	13.06	933.63	1.041	71.4	0.196
2008	15.05	48.9	11.61	1642.02	1.009	141.43	0.387

Source: calculated by the author based on data from World Bank [36].

4.3 Consumption Function for Egypt

The study thus divided national income into three parts: Y_1 for Zakat-payer, Y_2 income of Zakat-receiver, Y_3 income of Muslim neither pays nor receives Zakat and non-Muslim people. $Y = Y_1 + Y_2 + Y_3$, where $Y_1 = (D_1 Y - D D_1 Y)$ where D is Zakat rate and $D D_1 Y$ is the total Zakat collection, $Y_2 = [(1 - D_1 - D_2) Y] + [(D D_1 Y) D]$ where D is the Zakat amount goes to Zakat-receiver and $Y_3 = (O_2 Y)$. By the same token, total consumption is divided into three parts representing the same three categories. Each category has a different marginal (and average) propensity to consume. Finally, we assume that a part i.e. D of total Zakat funds i.e. $D O_1 Y$ will be received by the Zakat-receiver. Consumption functions of the Egyptian economy one without and one with Zakat are considered below:

4.3.1 Consumption function without Zakat

$$C_{No} = a + O_1 (O_1 Y) + O_2 [(1 - O_1 - O_2) Y] + O_3 (O_2 Y) \quad (1)$$

where O_1 , O_2 , and O_3 are marginal propensities to consume of the three categories respectively. $O_2 > O_3 > O_1$, a is the intercept, O_1 , O_2 , and O_3 are income share for each category.

4.3.2 Consumption function with Zakat

The total consumption function with Zakat can be written as:

$$C_{Yes} = a + O_1 (O_1 Y - D O_1 Y) + O_2 [(1 - O_1 - O_2) Y + (D O_1 Y) D] + O_3 (O_2 Y) \quad (2)$$

The difference between consumption with and without Zakat is the net transfers to the poor multiplied by the difference between marginal propensity to consume of the Zakat-receiver and the marginal propensity of Zakat-payer as follows:

$$C_{Yes} - C_{No} = [(D \ 0_1 \ Y) \ D] [0_2 - 0_1] \quad (3)$$

The effect of moderation on consumption can be captured by adding the moderation effect or avoiding israf coefficient in the consumption function as:

$$C_{Yes} = a + (1-s) 0_1 (0_1 \ Y \ D \ 0_1 \ Y) + 0_2 [(1- 0_1 \ 0_2) \ Y + (D \ 0_1 \ Y) \ D] + 0_3 (0_2 \ Y) \quad (4)$$

where s is israf coefficient and it ranges from zero to one. The marginal and average propensity to consume are as follows:

$$APC = a/Y + (1-s) 0_1 0_1 (1 \ D) + 0_2 (1- 0_1 \ 0_2) + 0_2 D 0_1 \ D + 0_3 0_2 \quad (5)$$

$$MPC = (1-s) 0_1 0_1 (1 \ D) + 0_2 (1- 0_1 \ 0_2) + 0_2 D 0_1 \ D + 0_3 0_2 \quad (6)$$

The affect of Zakat on consumption depends on net transfer Zakat collection to the poor, the marginal propensities to consume of the groups, and the moderation magnitude. The study used three different simulations to find the effect of Zakat on consumption as shown in Table 3.

Table 3. Simulations

Simulations	0₁	0₂	0₃	0	S
Simulation 1	0.8	1	0.9	0.3	0.05
Simulation 2	0.7	0.9	0.9	0.25	0.1
Simulation 3	0.6	0.8	0.8	0.2	0.15

Results of the above simulations for year 2008 states that the consumption of Zakat-payer and of neither zakat-payer nor Zakat-receiver group with zakat are less than those without Zakat. However, the consumption of Zakat receiver with zakat is more than that without Zakat. The total consumption with Zakat is less than the total consumption without Zakat. This is because of the opposite effects of high marginal propensity to consume and moderation. The negative effect of moderation is relatively higher than the positive effect of the marginal propensity to consume. Increasing net transfer to the poor and decreasing moderation lead to increase the total consumption in the economy (see Table 4).

Table 4. Simulations results for year 2008

Consumption Values Without Zakat					
Simulations	A	$O_1 (O_1 Y)$	O_2 $[(1 \cdot O_1 - O_2)Y]$	$p1 O1 Y$	Total
Simulation 1	54917.17	54837.17	79780.92	13041.74	202577
Simulation 2	54917.17	47458.25	74088.79	11429.84	187894.05
Simulation 3	54917.17	39408.52	73671.98	4037.89	172035.56
Consumption Values With Zakat					
Simulations	A	$(1-s) O1$ $(O1 Y - O O1Y)$	$p2[(1 \cdot O1 - O2) Y$ $+ (O O1 Y)O]$	$O3 O2 Y$	TOTAL
Simulation 1	54917.17	50792.93	80295.02	12317.2	198322.32
Simulation 2	54917.17	41632.82	74474.37	10159.86	181184.22
Simulation 3	54917.17	32623.27	73946.16	3785.52	165272.12

We assume that the value of (a) is a lump-sum of the amount of US\$ 21day multiplied by 365 multiplied by population in year 2008.

5. CONCLUSION AND POLICY IMPLICATION

The research aimed at showing that the problem of poverty is a global phenomenon. Despite the attention of researchers and politicians to discuss and suggest policies to alleviate it, they failed to achieve the desired results. The study explained how can the third pillar of Islam "the Zakat" can contribute in eradicating poverty in Muslim communities. The study estimated the potential Zakat collection in Egypt and stated that Zakat collection cannot eradicate poverty from the Egyptian economy alone. The study estimated the effect of Zakat on aggregate consumption in the Egyptian economy. Finally, the results stated that the more net transfers to the poor, the greater the effect will be on consumption, then on poverty. The study recommended the need to pass legislation that requires the collection of Zakat from different sectors, organizations and institutions as well as individuals. The study emphasized the need to voluntary charities as complementary tools in poverty eradicating. The Egyptian government should monitor and control the processes of collecting and distributing Zakat where the more directed to the poorest eligible (first of the eligible categories), the greater the effect on consumption then on poverty.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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Success Comes in Many Dimensions: The Critical Role of the Human Capital and Preparing for the Future in Every Organizational Scorecard

ABSTRACT

Our paper synthesizes our empirical research over the past twenty years on the components of success across the organization. While many articles detailing multi-dimensional models of success have been published, few of these articles have studied success across all structural levels – the project, the business unit and the corporate levels. While there are clearly some differences at the varying levels, some common themes have developed. Our framework covers a time spectrum from short-term measures (e.g., financial and efficiency measures) to long-term (e.g., investing for the future). This framework could provide a foundation for many organizations to develop success measures throughout its structural levels. We especially note the importance of the role of the human capital and the investment in creating future opportunities. Our research provides guidelines for management on each success dimension.

Keywords: success dimensions; performance measures; organizational effectiveness; human capital; human resources management; leadership; efficiency; customer's benefits.

1. INTRODUCTION

What does organizational success mean? Is it the organization's profits, its sales, or cash flow? Is it the current level of growth, or something else? And if success is measured by the company's market value, how could a firm sustain and grow its value year after year? Even prior to the recent series of financial crises, most in the business world realized that financial measures alone do not provide

a sufficient basis for measuring organizational success. 'Managing' quarterly results, only emphasized the inadequacy of financial measures such as profit, revenue, and even growth. This is not new. Over forty years ago, Hayes and Abernathy [1] claimed that one of the dangers to the American economy is the pervasive short-term myopia. Executives with financial and legal skills, who know little about their firm's products, markets, and production processes, usually rely on quantitative short-term financial criteria.

Today, many have realized that long-term aspects of any organization's effectiveness are equally critical [2]. Technology-based firms, which operate in markets and environments that evolve rapidly, have to manage with longer-term horizons. Hamel and Prahalad [3], in their bestselling book "Competing for the Future" advocated new ways to look at the modern organization that is facing continuous change. These firms must have the vision to capitalize on emerging opportunities by investing for the future in their core competencies and thusly help shape the future of their industries.

This article represents twenty years of empirical research on the elements of sustainable success throughout an organization. Our journey began looking at the outcomes of discrete business decisions; it became apparent that present business success was the result of decisions made years earlier. Consequently, looking forward, many of today's strategic decisions will only have an effect five or ten year from now.

Thus, in addition to current performance and short-term activities, organizations must focus their attention on decisions and plans dedicated to tomorrow. We concluded, as others, that organizational success should be viewed in multiple dimensions, and focus on different time horizons.

In our quest to understand organizational effectiveness, we explored different structural levels within the organization. We looked at different data samples, and at different times. Our empirical studies addressed separately, the corporate level, the strategic business unit level, and the individual project level. Our previous published research looked at success at the corporate and project levels [4]. We have benefited from important existing concepts such as the Balanced Scorecard [5], but sought to go a step further, by empirically pursuing the critical elements, which constitute success at distinct levels.

We found that organizations would benefit from adapting a multi-dimensional framework, which would be used to scan their entire success landscape at different time horizons—from very short-term to very long-term. Such framework will serve as a basis for the development of specific success measures for each organizational level. While major differences may be found among hierarchical levels, we also found that some common themes extend across all levels. The most important is the human capital element. As many would agree, leading people is perhaps the most critical part pertaining to organizational success; yet, it has been largely missing as a stand-alone dimension in previous frameworks. The second theme that is recurring across levels is 'preparing for the future'. As in the people dimension, in today's rapid world, preparing for the future or in other words, creating future opportunities, must be addressed at all levels and almost by all managers. The purpose of this article is to summarize the lessons we learned from our combined studies on success dimensions, as well as to discuss the critical role of the human and future dimensions at each organizational level.

The next chapter begins by describing the process of studying the entire multi-dimensional success assessment framework. We then devote specific chapters to each level – the corporate, the business unit, and the project. We then specifically address the role of people and their leadership, as well as the role of preparing for the future and how can this part be nurtured by selecting the right measures. We conclude with several organizational and managerial implications.

2. THE DYNAMIC MULTIDIMENSIONAL SUCCESS FRAMEWORK

Perhaps the most important work in recent years about organizational success measures is the Balanced Scorecard, which was developed by Kaplan and Norton [6,7]. Kaplan and Norton's assertion is that traditional financial accounting measures (e.g., ROI, EPS) can give misleading signals for continuous improvement and innovation, and are out of step with the skills and competencies needed by today's organizations. The Balanced Scorecard is a multi-dimensional framework that translates a company's strategy into specific measurable objectives. This includes a combination of financial measures, indicating results of actions previously taken, and operational measures that

are drivers of future performance. Typically, 15-20 measures are developed in four major dimensions, which address different perspectives—financial, customer, internal, and innovation and growth. These dimensions manifest themselves in various forms for different organizations. For example, innovation is treated as an internal perspective measure, while developing new technologies is part of the growth perspective.

The Balanced Scorecard represents a critical step in understanding organizational success, and while it has a substantial impact on strategy formulation and implementation, some limitations and difficulties have been noted. While Kaplan and Norton [6] did provide a “learning and growth” dimension, the broader role of managing the human capital was not specifically discussed. For example, Atkinson et al. [8] suggested that The Balanced Scorecard model was incomplete because it fails to adequately highlight the contributions that employees and suppliers make to help the company achieve its objectives. The argument is that learning is only one part of managing people; other aspects such as motivation, retention, should also be considered. Similarly, Smith [9] noted that The Balanced Scorecard fails to account for the role of “motivated employees”, a critical issue especially in the service sector. And Edvinsson and Malone [10] suggested that the Balanced Scorecard is only part of what they call the Intellectual Capital of the firm, which consists of the human capital and the structural capital.

While the Balanced Scorecard is widely accepted in a broad range of profit and non-profit organizations; e.g., financial services [11], higher education [12], and health care [13], during our research interviews, many managers frequently mentioned the lack of a people component in The Balanced Scorecard. The most notable problem in The Balanced Scorecard’s view of organizational success is therefore the lack of focus on the company’s human resources dimension. Many managers frequently mentioned during our research interviews the need for people orientation. For example, Best Foods (now part of Unilever) [14] has been using The Balanced Scorecard for years; however, the company felt it necessary to add a fifth dimension, “People Development” to address this critical issue.

Similarly, European firms (e.g., Nokia) have emphasized the importance of human resources management and the way they treat their employees as a

critical component to their success. These realizations have prompted companies to include specific assessment of management training, slack time, knowledge worker retention, and issues relating to the company's global employee population. Consequently, these observations have motivated us to look further into the human dimension in assessing organizational success.

2.1 Toward a Dynamic Model of Success

Management still struggles with the entire domain of performance management, and is provided with an overwhelming deluge of performance data. As a result, it is difficult to determine which data is critical to the organization. As a result, many firms continue to focus on short-term financial criteria such as sales, revenue and net income.

Traditional models of accounting alone are no longer sufficient. Corporate financial statements are proving to be only static representation of what goes on in the modern organization – or rather, what “happened”. The creation of new technologies, ventures, and skills and are only apparent much later in the future. However, their presence in organizational success measures is seldom observed. Rogers and Ghauri [15] posited that while measurement at the project level yields great insights and lessons for New Product Development success, assessment is also needed at the firm-level. Success at the project level, does not always improve the firm's competitiveness. The difficulty in defining organizational success was evident in the Conference Board's concerns which was reported in “New Corporate Performance Measures” [16]. This report discussed the increasing corporate focus on performance, along with the inadequacies of traditional financial measures in the dynamic turbulent environment of today.

Once the idea that organizational success is multi-dimensional has been recognized, it is the role of the researcher to identify the specific dimensions, with which an organization can monitor itself. Any framework for success assessment should look, however, not just at different dimensions, but also at different time horizons, from the immediate, short-term view, which relates to months or quarters, to the very long-term, which is focused on years to come. In the three studies that we conducted and are summarized here, we have taken this view. We tried to identify what are the specific dimensions, which are typical

to various organizational levels, and what time frames are associated with each dimension.

From our studies, a dynamic view of organizational success developed, with multiple dimensions representing temporal horizons – from the short to long-term. An organization needs to perform well across these dimensions to sustain their success. Performing well in the short-term does not assure long-term success, and likewise, poor short-term performance does not necessarily long-term failure. We call our model the “Dynamic Multidimensional Success Model” or DMDS, and it will be described more fully in the following discussion.

Taken together, the success of most organizations can be divided into five major dimensions, each consisting of several specific measures (see Table 1). These dimensions represent different time horizons. Furthermore, at each organizational level we found the human element to be critical at different times. The emergence of the human dimension, however, was not clear at the outset of our studies. Only after integrating all levels were we able to place the people’s issues across levels (the shaded areas in Table 1).

Analogously, we found that the “preparing for the future” dimension provides a significant role in looking at long-term organizational success. We thus summarize these two dimensions in separate chapters toward the end of this paper.

Table 1. Overview of “dynamic multidimensional success model”

Success dimension	1	2	3	4	5
Time horizon	Very short	Short	Mid-term	Long	Very long
Organization level					
Project	Project efficiency	People skills	Impact on customer	Direct business success	Preparing the future
Business unit	Profitability	Orders and marketing	People Development	New opportunities	Future infrastructure
Corporate	Financial performance	Market/ customer	Process	Human capital	Creating the future

Our studies do not imply that there are universal success measures for all projects, strategic business units or corporations. We do suggest that our results act as guidelines as an organization develops its strategic plans and develops its measures for sustainable success assessment and growth.

As each organization is different, we would suggest that the various measures and dimensions would be utilized with varying degrees of importance. However, the DMDS model provides a fair basis with which to start the journey of success assessment for most organizations. In the next chapter we begin by discussing the first level, the corporate level.

The details of our research methodology can be found in Appendix A.

3. THE CORPORATE LEVEL

The corporate level represents a collection of business units and centralized units such as IT, Human Resources, central R&D, Financial, and Legal services. The corporation exists to create and increase value for the shareholders, offsetting the cost of this centralized overhead. Transferring and exploiting competitive skills across the business units and using them to gain competitive advantage defines the core competency concept, representing the sum of learning across individual organizational units [3]. The corporation's effectiveness therefore depends on activities and synergies across the various business units – some will have immediate visibility, other will be evident in the long-term. The resulting synergies have to be measured from several vantage points. It has to reflect the company's short-term (financial) performance, and importantly its success in establishing the vision, direction, and foundations for the future.

Our research at the corporate level [17] of 180 U.S. firms have resulted in the following five dimensions (see Table 2 above).

Table 2. A summary of suggested success measures for differing firm types

	Financial	Market/customer	Process	Human capital	Preparing for the Future
Baseline	Sales	Cust. satisfaction index	Time to market with new products/svcs	Retention of top employees	Depth and quality of strategic planning
	Profit margin	Cust. retention rate	Quality of NPD & PM processes	Quality of leadership development	Anticipating & preparing for unexpected changes in the ext. environment
	Revenue growth	Service quality			
High technology firms		+customer benefits from product/ services	+cycle time +quality of innovation processes	+quality of prof. devel. +employee skills training	+investment in R&D (% of sales)
Low technology firms		+responsiveness		+encourage employees to suggest/test new ideas	
Small firms	+cash flow			+encourage employees to suggest/test new ideas	+investment in new mkt. development
Large firms	+EPS +stock price	+market share		+employee skills training +Quality of corporate. culture development	+Investment in R&D (% of sales)
Firms- product life Cycle <3 years			+cycle time		
Firms- product life Cycle >3 years		+responsiveness +company's reputation and image	+quantity & depth of standardized processes	+employee skills training	+investment in new technology

Developed from: (17) Maltz, A. C., Shenhar, A. J., Reilly, R. R.: *Beyond the Balanced Scorecard: Refining the Search for Organizational Success Measures*. Long Range Plann. 36, 187-204 (2003)

3.1 Financial Performance

This is the traditional short-term dimension of organizational success. It provides recent period results such as sales, margin and revenue growth on current services and products resulting from strategic decisions made years ago.

3.2 Market/Customer

Key measures in this dimension include customer satisfaction index, customer retention rate and service quality, as well as company's reputation and image.

3.3 Processes

This dimension represents the company's set of core competencies and its ability to deliver these competencies to its different collection of businesses while exploiting them as fundamental customer benefits. Process measures included 'time to market for new products and services', 'quality of new product development and project management processes', 'quantity and depth of standardized processes', 'quality of manufacturing processes', and 'quality of its innovation processes'.

3.4 People and Leadership

Much research has linked the management of the firm's human resources to its performance, highlighting the criticality of a 'People Development' dimension. Crook et al. [18] indicated that theory at both the micro and macro level predicts that investments in superior human capital generate better firm-level performance. Specific measures that were found significant in this dimension include 'retention of top employees', 'quality of professional/technical development', 'quality of leadership development', 'encourage employees to suggest and test new ideas' and 'employee skills training'. However, theory and research during the years tend to be focused at the organizational level of analysis. How human capital and social capital are created through HRM practices or how they are related to group or individual behavior are not explained or demonstrated explicitly [18].

The role of project team leadership has been studied extensively in recent years. A wide-ranging literature review on leadership style as a success factor

on project success was provided by Turner and Muller [19]. Project leadership was one of the strong predictors of success [20] for large capital projects. Surprisingly, a few studies have indicated a mixed result on project performance. Belout and Gauvreau [21] while finding a link between the personal factor and project success (non-significant) they have indicated that this link does exist according to life cycle stage. Project success is also effected by the industry, project complexity and the age and nationality of the project manager [22].

3.5 Preparing for the Future

This final and longest-term dimension is aimed at its ability to see the future prior to its competitors and customers and to define new needs that no one has been able to define previously. Its ability to prosper depends on its ability to make a difference to customers, by creating unimagined products, and exceeding the expectations of customers and competitors.

Numerous measures could be utilized for this dimension. Is there an explicit process for identifying and exploiting new opportunities beyond the boundaries of existing business units? Are we providing investment in new technologies? Does the company's opportunity horizon extend beyond existing product markets? Are there processes to identify new and unarticulated needs for customers, which are not presently met?

3.6 Baseline Measures

In addition to defining the Success Dimensions at the corporate level, our research shows that one set of measures cannot fit all organizations. Rather, different types of organizations should employ different measures of success. Specific industries may have their own key metrics. For example, ROI may be a critical measure for investment firms, while market position can be critical to firms in competitive markets. Individual firms would look, among other things, at their industry, technology and strategy, and would perform a sensitivity analysis as to the applicability of these measures to their own unique requirements.

To begin with, a company may use a set of "Baseline Measures" that was identified in our research (shaded area of Table 2). Based on the specific company type, a number of suggested refined measures can then be added for the individual firm. For example, a high-technology organization may consider

adding 'customer benefits from products or services', 'cycle time', 'quality of innovation processes' and 'employee skills training' to their performance metrics. Similarly, a firm with a relatively long product life cycle may consider the addition of 'quantity and depth of standardized processes', 'company's reputation and image' and 'employee skills training' to their measures. The final set of measures would depend on the firm's strategy, technology, and the particular industry and environment that a firm competes.

3.7 An Example from a Study of U. S. Corporations

To demonstrate the effectiveness of the multidimensional dynamic framework and its ability to address longer term business concerns, we have included in (Fig. 1) the relative ranking of five companies among the 76 public companies that were included in our study, in each of the five dimensions:

Company **a** is a software services provider. It fared rather poorly across four of the five dimensions. One of its major businesses has collapsed during the time of this research as a result of an invasion of new technology. Its financial positions as well as future prospects looked weak. In fact, with its stock price so low, the company's management considered going private as a way of reducing expenses.

Company **b** is a successful licensed clothing manufacturer with high relative rankings in all dimensions except the 'Customer'. At the time of the survey they perceived some issues with a major customer, which has since been resolved. Their processes, people and future measures were strong. The company was sold with its stock price increasing more than 350% over three years.

Company **c** is a major engineering firm with relatively poor rankings in all dimensions. It has endured major reductions in staff over many years, and has recently replaced its CEO with an outsider. This company is in survival mode.

Company **d** is a leading financial services organization with high rankings in all dimensions. They are a leader in developing new products and understand their customers and markets; they are building a future.

Finally, company **e** serves a unique niche in the global technology market. Although their short-term financial ranking was low (they were investing for the future), their longer-term rankings were very high. As a result of their future potential, this relatively new company was acquired for a very significant price.

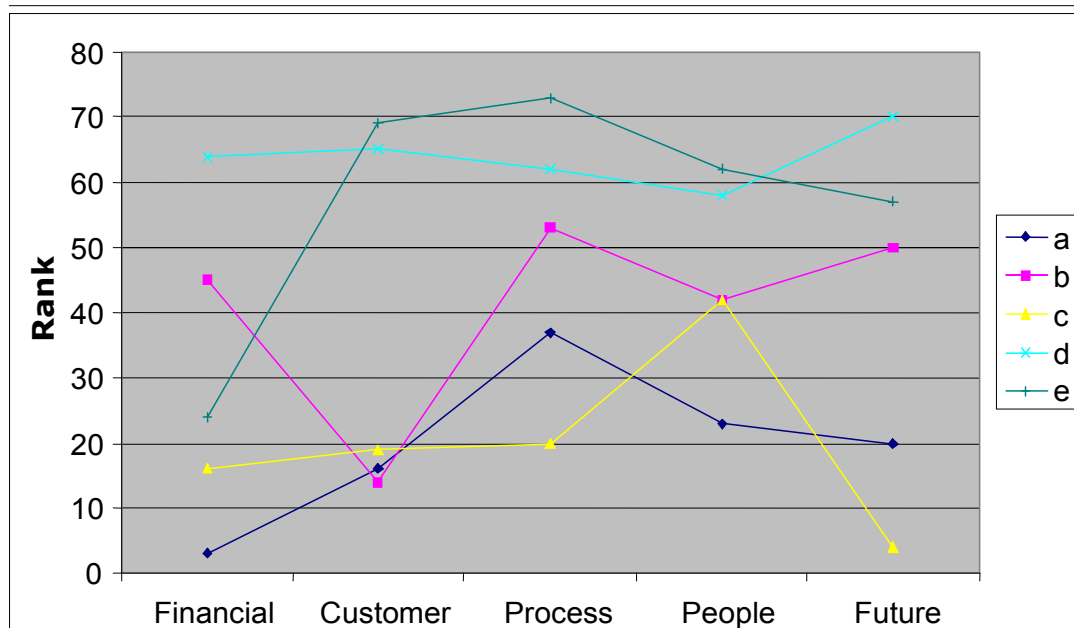


Fig. 1. Corporate level success dimensions

Developed from: (17) Maltz, A.C., Shenhar, A.J., Reilly, R.R.: Beyond the Balanced Scorecard: Refining the Search for Organizational Success Measures. Long Range Plann. 36, 187–204 (2003)

4. THE BUSINESS UNIT LEVEL

Organizational success at the business unit level rests upon the aggregation of results achieved by different projects and products. Typically businesses are measuring success in terms of gross sales, profit, return on investment and gross market share. Some of these measures may have longer time-horizons than others - for example, meeting backlog targets. While a few companies are using additional longer-term measures such as the percentage of sales from new products, a comprehensive framework of the business unit success is needed. Our studies [23,24] of business units in the high-tech industry found that business unit success measures could be based on the following five dimensions (see Table 3).

4.1 Profitability

The first dimension addresses the issues of how well does the business unit meets their financial and profit objectives and do present sales generate enough cash to insure the smooth operation of the business? It reflects results of actions taken in the past that have generated recent sales. This dimension involves the traditional measures of sales and profits. However, the business

should also ask, how its profit margins are doing relative to similar businesses in the industry and compared to its own profitability goals.

Table 3. Business unit success measures

Success dimension	Specific typical measures
1. Profitability	<ul style="list-style-type: none"> • Sales, profits • Cash flow • Margins
2. Orders and Marketing	<ul style="list-style-type: none"> • Projected sales objectives • Back log • Market share
3. People Development	<ul style="list-style-type: none"> • Developing technical skills • Managerial skills • Human resources utilization
4. New Opportunities	<ul style="list-style-type: none"> • Administrative services • Sales from new products • New markets • Customer satisfaction
5. Preparing for the Future	<ul style="list-style-type: none"> • Customer loyalty • New technology • New product lines • Infrastructure for the future

Developed from: (24) Dvir, D., Shenhar, A.: Measuring the success of technology-based strategic business units. Eng. Manag. J. 4, 33–38 (1992)

4.2 Orders and Marketing

This dimension involves the next step of success in the market. It includes measures indicating prospective revenues from existing orders scheduled for delivery in the near future. It addresses the question of how successful is the business in achieving sale objectives and in creating additional orders. Is there a continuous flow of orders and what is the current level of backlog? Of particular interest is the question how are these orders going to influence future cash requirements.

4.3 People Development

This dimension highlights the critical role of people in the business units' success. Measures such as the quality of professional development and management skills are essential to a successful operation. It may also include utilization of skills across projects, placement of people, growth potential, and quality of administrative processes. These are elements that take perhaps 2-3 years to develop but contribute to the business unit success for many years.

4.4 New Opportunities

This dimension is focused on a longer range. It measures outcomes that influence longer-return results since exploiting new opportunities may take time. It addresses the question of how successful is the organization in opening up new opportunities for new products and new services and new markets. What are the prospects of entering into these markets in the foreseeable future? This dimension also includes assessing customer satisfaction and loyalty. Are customers happy with the quality of the products and services of the business unit and are they willing to come back for additional purchases?

4.5 Preparing the Infrastructure for the Future

This very long-term dimension addresses the question of how well is the business prepared for future opportunities and changes. It reflects past and future investments that may determine the business unit's results in the years to come, and sometimes may even hurt business in the short-term. Had the business identified and made the necessary strategic decisions on future technologies and future types of products? Had it invested enough in developing skills required for future markets? Does it have enough long-term programs, whose goals are beyond two or three years from now; and is it working on next generations of technology and products which are focused on five, seven, or ten years away?

4.6 Specific Measures for Each Business

While most organizations are using the first and second measures (profits and backlog), only a few are formally looking at longer-term dimensions. Many companies are currently using frameworks such as the Balanced Scorecard and some pioneering companies such as Hewlett-Packard and 3M have instituted a longer-term perspective for many years. To focus their businesses on continuous innovation they are assessing, among other things, the percentage of sales from new products developed within the last few years (part of the fourth dimension-opening the window for new opportunities).

4.7 Using the Framework for Predicting Future Business Success

The multi-dimensional framework of business unit success was used in a study of 76 business units in the electronics and computer industry in Israel [23]. The results indicate that the success of a business unit may be divided into two parts. One encompassing the first two dimensions (profitability level and orders) and reflecting the short run economic success; while the other including the last two dimensions and reflecting the prospects for the future.

The difference among the four dimensions and how short-term success differs from long-term success is demonstrated in (Fig. 2). At the time of this study, we examined only four dimensions. It exhibits the performance achieved by five business units and their relative ranking among the group of all businesses studied along the four success dimensions. A high rank means high performance.

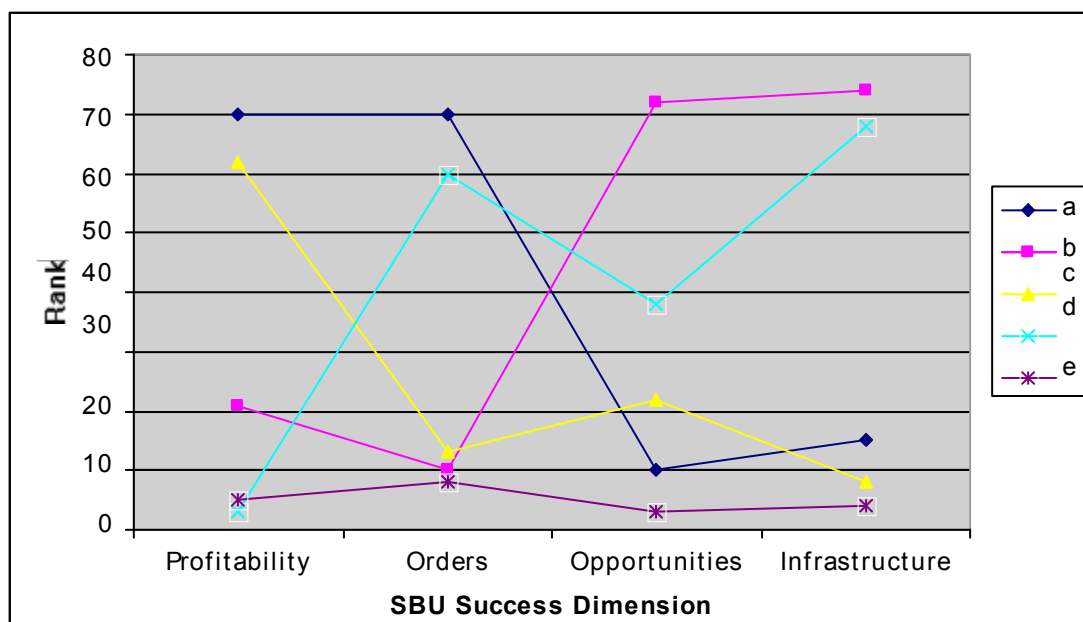


Fig. 2. SBU level success dimensions

Developed from: (24) Dvir, D., Shenhar, A.: Measuring the success of technology-based strategic business units. Eng. Manag. J. 4, 33–38 (1992)

Unit **a** was one of the best units in terms of short and very short-term success (measures include profitability, orders and marketing). However, it was one of the worst in terms of longer-term success such as preparing for the future. Obviously, such a situation requires immediate corrective action for preparing the unit for future challenges. Without such action, the situation might rapidly deteriorate, and then affect its short-term results as well. In fact, three

years after the study was conducted, unit **a** went into severe financial problems and previous sales levels has significantly declined.

In comparison to unit **a**, the position of unit **b** is quite strong regarding long-term measures. Its short-term measures, however, are rather poor. It is likely however, that due to its good technological infrastructure and its new product and market opportunities, that it will soon recover and present good performance, regarding profitability and orders as well. And in fact, three years later this unit proved itself as a very successful one.

Intermediate cases have also been observed. Unit **c** was ranked high in terms of profitability. Regarding other dimensions, however, its ranks were quite low. Although this unit has good profits at the moment, there are no orders to provide time for reorganizing and opening new opportunities. Furthermore, it seems that management has not taken the right steps to establish the technological and human infrastructure, nor has it taken the steps for getting new orders. Obviously, this unit is on its way to decline and so indeed happened later.

The data on unit **d** supports, as well, the predictability of our framework. Its profitability level is quite low, while all its longer-term scores are higher. As can be anticipated from the data exploiting the new opportunities, using a strong technological infrastructure might improve the profitability situation. That is exactly the course that unit **d** has taken, and in fact, their profitability returned to an acceptable level.

The data on unit **e** presents probably the last moment before consolidation. Prior to the study, unit **e** reduced its workforce by 50% and during the study's course it had actually taken desperate actions which proved to be too little and too late.

5. THE PROJECT LEVEL

Projects are initiated for many purposes; e.g., establishing new business and manufacturing processes, develop new and upgrade existing products and to expand facilities. The ability to assess project success has always been difficult, depending on WHO and WHEN the questions are asked. Classical measures such as meeting time, function and budget are the so-called 'triple constraint, and are widely used. However a seemingly troubled project, with significant schedule delays and budget overruns, can develop into a very profitable

venture. Consider, the construction of the Sydney Opera House. The cost of this project was almost ten times higher than planned, and it took three times longer than projected. However, it quickly became Sydney's most famous landmark, and no tourist wants to leave Australia without seeing it. Similarly, Microsoft's launch of its first Windows operating system suffered substantial delays and required a continuous flow of resources and additional people. However it is clear that years later, Windows has been a major cash-cow for Microsoft and is widely used in desktops globally.

Shenhar et al. [25] have suggested that projects in the future will be managed more and more as strategic endeavors, not just as operational activities. Projects should be focused on achieving business results and winning in the market place, and project management and teams will spend a great deal of their time and attention on activities and decisions that will improve business results in the long run. Projects, therefore, must be perceived as powerful, strategic weapons, which are initiated to create economic value and competitive advantage, and project managers must become the new strategic leaders, who must take-on total responsibility for project business results. In today's rapid changing world, there is no time to share this responsibility in the old way, where project managers were concerned with "getting the job done", while other managers were responsible for business aspects. One can no longer distinguish between project success and product success. It is all part of the same game and projects can no longer be seen as just operational tools for executing strategy, but rather the engines, and the drivers of strategy into new directions. Project success therefore must focus on all aspects, the short-term of meeting time and budget, but also the longer-term factors of business and future. Our studies on project success have resulted in the following framework of five dimensions [26].

5.1 Project Efficiency

Our first dimension is the short-term measure expressing the efficiency with which the project has been managed. It specifically measures whether the project has met its 'triple constraint' of time, budget and function. However, does this imply that the product will be a commercial success? With ever increasing competition and shorter product life cycles, time to market becomes a critical competitive component.

Table 4. Typical project success measures

Success dimension	Specific typical measures
1. Project Efficiency	<ul style="list-style-type: none"> • Meeting schedule goal • Meeting financial goal
2. Team Leadership	<ul style="list-style-type: none"> • Project Vision • Team motivation • Team morale • Collaboration • Trust
3. Impact on the Customer	<ul style="list-style-type: none"> • Meeting functional performance • Fulfilling customer needs • The customer is using the product • Customer satisfaction • Customer loyalty
4. Business and Direct Success	<ul style="list-style-type: none"> • Commercial success • Sales and profits • Project net present value • Market share • Business improvement
5. Preparing for the Future	<ul style="list-style-type: none"> • Creating a new market • Creating a new product line • Developing a new technology • Building new infrastructure

Developed from (28) Shenhar, A.J., Dvir, D., Levy, O., Maltz, A.C.: Project Success: A Multidimensional Strategic Concept. Long Range Plann. 34, 699–725 (2001)

Therefore, some organizations may find it beneficial to consider additional measures of efficiency. For example, the efficiency and yield of production ramp, the number of engineering changes before final design freeze, and the cost of materials and tooling. However, one must realize that all of these measures only relate to successful implementation of project execution and do not necessarily imply product success.

5.2 Team Leadership

This is the project “people management” dimension; it represents the investment and skills of the project manager in leading, organizing, and motivating the team members. It also represents the team’s “spirit” – the internal culture that was nurtured among team members, and the excitement and energy that often characterizes great projects. Our research [27] suggests that project spirit is enhanced by creating a vision, and cultivating the norms of behavior, values, the team internal interaction and mutual support and the social bonding of team members.

Team leadership has been widely studied in recent years. For large capital projects, project leadership was one of the strong predictors of success [20]. A few studies have indicated a mixed result on project performance. For example, Belout and Gauvreau [21] while finding a link between the personnel factor and

project success (non-significant) they have indicated that this link does exist according to life cycle stage. Project success is also effected by the industry, project complexity and the age and nationality of the project manager [22]. Turner and Muller [28] provided a wide-ranging literature review on leadership style as a success factor on project success.

5.3 Impact on the Customer

Understanding the “real” needs of the customer is extremely important and reflects the basic notion of success. This dimension addresses the importance to the customers’ requirements, and to meeting their needs. This dimension also includes the level of customer satisfaction, the extent to which the customer is using the product, and whether the customer is willing to come back for another project or for the next generation of the product. In a study of the relative importance of success dimensions, Previous research [27] has found that project managers perceive this dimension far more important than the other success dimensions.

5.4 Businesses and Direct Success

This dimension addresses the direct impact the project may have on the performing organization. Were the sales, income, and profits as expected, did it help increase business results and gain market share?

This dimension may also apply to non-profit organizations and internal projects. For example, organizations may need to assess the success of their re-engineering projects, or the developing of new manufacturing processes. It will include measures of cycle time, yield, and quality of the process; all of them will assess the direct impact that the project had on the organization.

5.5 Preparing for the Future

The last dimension addresses the issue of helping prepare the organizational and technological infrastructure for the future. Did the project develop new technologies or markets or other innovations? Has our organization developed new skills that will be critical for future endeavors?

Can a project really be successful if the Product is a failure? It can, if the failed project served as a foundation for another project. Consider Apple’s

'Newton', by all accounts a commercial disaster. But this effort led Apple to the development of the iPad, which is incredibly successful.

5.6 Project Success over Time

Project success should be considered as a dynamic concept, with different dimensions playing a role at different times and with varying degrees of importance over time. Project success also varies with project type [25]; depending on the level of technological uncertainty at the time of the project's inception. The project efficiency (first) dimension can be assessed during project execution and right after project completion. The third dimension (Impact on the Customer) is assessed after the customer has used the project's product. Business success can be assessed after reaching a significant level of sales; this may take several years, depending on the industry. Typically several years may pass before the fifth (Future) dimension can be judged. The people dimension manifests itself across the project lifecycle and even after a project is completed. Project team members are typically assigned to new projects and continue to exploit their experience and knowledge gained during previous projects.

6. THE CRITICAL ROLE OF THE HUMAN CAPITAL

There is no question that the human element has a critical role in the success and competitiveness of the modern organization. This becomes even more important with the acceleration of knowledge creation and the increased reliance of companies on knowledge management, knowledge assets and intellectual property. Many authors have emphasized the importance of the human element to the success of today's organization. For example, Ittner and Larcker [29] view human resource management practices as one of the key elements of process based performance improvements. They suggest that a firm's management and its employees can affect its financial performance as well as provide a valuable source of competitive advantage [30, 31]. Project-oriented organizations have unique human resource management issues [32], they are better at providing organizations with competent people, but do not do as well as caring for their employees; many of these companies realizing the critical need for these people are providing career development opportunities to improve morale. Firms have embraced the notion of human capital as a

competitive advantage that enhances higher performance [33]. Similarly, Edvinsson and Malone [10] claim that “without a successful human dimension to a company, none of the rest of the value creations activities will work”. Furthermore, organizations in the Silicon Valley have coined the term “wetware” representing the human input into economic activities; this human activity can never be “owned”, only “rented” and it is critical to any firms’ success [34].

In our study of success dimensions across different organizational levels, we have witnessed the importance of human capital again and again. Almost every manager that we interviewed has stressed the importance of human resources to the success of his or her company. Statements that we heard included the following quotes [35]: a chairman of an engineering services firm asked: “Is staff morale higher than last period? This is critical to our success”. A defense contractor president suggested that, “The morale of employees is very important. Unhappy employees will affect product quality, customer satisfaction and sales and profitability”. And a general manager of a telecommunication equipment manufacturer said, “Employee skills, talent, and experience are the primary differentiator for high-tech firms today”. When we looked at specific dimensions in our research at the corporate level, we found that ‘retention of top employees’ was the second most frequently selected measure among all measures (second only to sales). It was rated as important or very important by 76.7% of all respondents.

Yet, when it comes to actual measurements, only a few organizations were found to be using a formal explicit framework to assess the company's success in treating its employees, its employee morale and satisfaction, or their skills and productivity. The conclusion is clear: adding the assessment of the human element as an indicator for performance is critical to short-term success, but perhaps even more important to long-term success, and alternatively may serve as a pre-warning for trouble. For example, if a growing number of people are leaving the organization and the turnover rate is increasing, clearly, something is wrong.

Integrating the results of our three studies, we concluded, that the human element could indeed be measured. Furthermore, while different people issues should be looked-at different organizational levels, there is a common element across all organizational levels that should be measured in order to guarantee

sustainable success in the long run. Starting from the lowest level, the human element at the project or team level should be focused on team leadership, team morale, and team spirit. An individual project is a temporary organization that only exists as long as the work toward the project goal continues [36]. When the goal has been reached, the project ends and the team members are assigned to other projects or commitments. Thus the short-lived nature of projects suggests that dealing with people on the project should be focused on creating the immediate motivation and spirit that is needed to get the job done. However, great project teams are characterized by high team spirit, extensive morale, and mutual support among team members. Leaders of great projects are distinguished by their ability to make the team function as one, to support team members in their personal issues, and create a unity and community among team members so that they will feel that they are part of a unique excellent team. Typical measures at the project level may include how people feel about being part of this team, how proud they are to be on the team, how much they are supported by their peers, and how much are they challenged by the goals and tasks of their project.

At the business unit level the people issues are moving to a higher level. Business units are more stable, and the people issues may have a longer term perspective. Therefore, success in the management of the human capital will be determined by how well does the organization deal with their professional development, work assignments, placements in positions, and perhaps the development of management skills.

Finally, at the corporate level, the human capital management should be focused on the longer-term issues. One of the most important issues is the retention of top employees and professional workers. Another one would be the organizational culture and how well it supports the creativity, the innovation, or the quality of the customer focus that the organization is trying to achieve. And yet another issue may be the quality of developing leadership skills and growing people to prepare better for their next assignments on a long-term basis. One may also include tracking company statistics about the average age of employees, the average tenure of employees with the company, investment in training, and the average training days per year per employee [37].

7. PREPARING FOR THE FUTURE

Just as the human issue extends as important throughout the spectrum of organizational levels, preparing for the future appears a common theme in all levels. This measure emerged from previous frameworks, which dealt with learning or investments in R&D. Naturally, this is the longest-term dimension, and success in preparing for the future is perhaps the most important dimension for sustainable on-going success. Yet short-term pressures are often preventing organizations from investing in the future or even assessing the way they are operating for achieving sustainable success.

Our multi-level studies have shown that this issue is in fact on many managers' minds, yet when implementing a formal framework of success, only a few organizations made this dimension part of their assessments structure. Here too, we found different specific measures to be relevant for the dimension of preparing for the future. Once again, starting with the project level, preparing for the future means that the project is being managed to achieve more than just immediate business and profit related goals. In many projects, an effort is made to build new technologies [38] or to prepare infrastructures and abilities that would be used in the future for other projects and by other product lines. Typical measures indeed include developing new technologies, creating new markets and developing new organizational capabilities.

At the business unit level, preparing for the future means creating next generation products, investment in new technologies, and creating infrastructure and methods for future product lines. At this level, one looks at the ability of the business to combine the efforts across projects into a coherent view of the future where the business is focusing on strategic goals and imperatives that will shape the business and its environment in the long run.

Finally once again, at the corporate level, what is important for the future is the ability of the company to create leadership in the industry, to define the foresight for the future of the industry, and to invest in creating new businesses while identifying opportunities that are outside of the territory of existing businesses. The corporation should also assess its total investment in R&D, in creating partnerships with potential allied companies, and its investment in infrastructure such as IT, global markets, and international outreach.

8. IMPLICATIONS AND CONCLUSION

The need for a comprehensive view of performance management has been widely discussed in the popular and scholastic press. The capital markets emphasize quarterly earnings reporting and significantly punish those companies not meeting earnings expectations. As a result companies often practice financial engineering; and much of this comes at the expense of investing for the future. Consequently, it is crucial that success measures provide organizations with tools to build their future. That entails measures that are indicative of investing in people issues as well as in building long-term resources, facilities, and capabilities, to adapt to the fast pace of today's changing environments. We believe it is also critical that any prescription for performance measurements would be simple, dynamic, and flexible over time, foster improvement, and be linked to the organization's strategy, goals and objectives.

In conclusion, perhaps the need for a new dynamic framework can be best described by two observations from the recent corporate literature. We defined a new view of corporate strategy. Their premise is that competition for the future will be to create and dominate emerging opportunities—to stake out new competitive space. Companies that are too focused on today's issues and not preparing for the future will simply not be competitive. Also, Collins and Porras [39] emphasize that one of the fundamental attributes of organizations that have endured for years are the “envisioned future”. They specifically define this term as setting a “big hairy audacious goal” that truly stretch an organization's resolve and resources but has the potential to shape the future. This may take the firm from ten to thirty years to achieve – clearly a long period of corporate life, and clearly indicates the need for long-term success assessment methods.

The “Dynamic Multidimensional Success Model” (DMDS) provides another step towards a practical framework to the domain of organizational performance measures. It looks at the organization as a “whole’ from the project level up through to the corporate level and gives managers a practical starting point for effectiveness measures over multiple timeframes. By adding the Human Capital and Preparing the Future dimensions to their success scorecards, our hope is that this framework may help companies to constantly examine themselves and improve the chances for sustainable and stable success.

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APPENDIX

APPENDIX A-Notes on Research Methodology

As described in the text, we chose to perform a two-stage study, which involved a combination of qualitative and quantitative methods and two data sets. The first stage involved a case study research on 15 projects, and the second a statistical analysis study on 127 projects. The fifteen case study projects were part of the larger sample of 127 projects, which seem to add only an insignificant bias to our findings.

All projects we studied were either completed within the recent year, or they were in their last quarter before completion. Data collection was performed in Israel, in the mid 1990s, in firms operating in the military, or the commercial market. The projects studied were in a wide variety of industries (e.g., electronics, aerospace, computers, chemical), had significant range in budget (from \$40,000 to \$2.5B), project duration (from 3 months to 12 years), markets served, and project purpose.

Caution should be exercised in generalizing the results of this study, since the projects studied here were not randomly selected and may not be representative of all projects in general, or in other parts of the world. However, Israeli industry is closely coupled to Western culture, either in Europe or the US; many of the organizations involved in our study are subsidiaries or partners of American companies, and there is no reason to suspect that the study was biased in any significant way.

Data collection for the first part (case study) was multi-faceted, and included in-depth interviews, which were conducted by teams of two or three, and involved at least three people from each project. In addition to the project managers, we interviewed members of the project management team, functional team members that were involved in the project, project managers' supervisors, and customer representatives. To strengthen our research validity, and as is often required by qualitative studies, we insisted that investigators interact with their subjects on their own turf, namely at the project site.

Interviews involved open questions on the project mission and objectives, the motivation and the expectations from the project of the different parties involved: the contractor, customer, and user. Data were also obtained on success of the project, as perceived by the different parties, and as compared to their initial expectations. Finally, we obtained data on specific goals and achievements such as meeting time and budget goals, meeting technical and functional requirements, fulfilling customer needs, and achieving various business-related results.

The qualitative case data of this study were processed through a method of cross-case comparative analysis, and as required by this method, it was highly iterative, with continuous comparison of data and theory. This method as described by Eisenhardt (p. 533) "forces investigators to look beyond initial impressions and see evidence through multiple lenses".

During the case study part of our study, and based on the experience gained in previous studies, we prepared a list of thirteen specific measures to account for the interests of various parties (see Table 3). This list formed the basis for the structured questionnaire, which was used during the quantitative part. During this phase, respondents were asked to rate the importance they place to each of these measures

on a seven-point assessment scale, from “very low” to “very high”. They were also asked to use a seven-point scale to rate the degree of success they perceived in each of these thirteen measures, as well as in a fourteenth measure, which involved an assessment of the project overall success.

Data analysis in this part, involved calculating the descriptive statistics and Pearson Correlation coefficients between the fourteen measures we studied. We also performed a factor analysis on these measures to identify whether they can be clustered as groups of typical measures, which are strongly related to each other, and thus can be described as separate success dimensions. The statistics can be found in our other paper "Project Success: A Multidimensional Strategic Concept" by Aaron J. Shenhar, Dov Dvir, Ofer Levy, and Alan C. Maltz.

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Behavioural economics: development, condition and perspectives

Abstract: The study examines the place of behavioural economics in the structure of economic science and the practice of state regulating. The thesis that neoclassicism is an appropriate normative approach for analysing human behaviour is defended but the comparative advantages are on the side of behavioural economics in the answers of descriptive, diagnostic, prognostic and perspective questions. It tracks the historical roots, the ideas of behavioural economics for the limited rationality, will and egoism are presented in short as well as the contribution of behavioural approach to the state intervention's ideology and practice. The libertarian paternalism idea and its role for the transformation of "state of wealth" into the gaining clearer and clearer outlines "new paternalistic state" are presented.

Keywords: behavioural economics, libertarian paternalism, nudge.

Introduction

There is consensus existing in the behavioural sciences that three types of questions need theoretical explanation. The first is the normative question „How should people act“. The second type of questions are directed towards three problems: the descriptive „How do people actually act“, the diagnostic „Why they act this way“ and the prognosis „What results their behaviour would lead to“. The third type of questions is the perspective question „How to achieve that the people act the way they should act“. Although desirable, a theoretical construction is not able to give answer to all three types of questions. (Thaler, 2016).

Undoubtedly, the neoclassical idea for „Homo Economicus“ is successful in finding normative answers for the ideal we should strive for. „Homo Economicus“ is rational, possesses unlimited possibilities to acquire and process necessary information, reacts in a predictable way to the stimuli created by the market and public institutions, pursues his own interest and has the will to realize his goals. The assumption for rationality is altogether simplified, powerful and precise enough tool, with which one can quest for descriptive answers and prognosticate wide range of economical phenomena. However, there are phenomena and facts that are in contradiction with the fundamental assumptions for rationality.

We difficultly estimate the possible outcomes and the probability of their occurrence. We overestimate ourselves and act with prejudice towards the others. Our optimism is unduly high and at the same time, we exaggerate the damage of possible losses. We use mental models that frame information the way we often interpret it incompletely and wrongly. Our choices depend on the context and we show tendency for anchoring to useless and unspecified information. We stick to the status quo, follow our previous behaviour or the others, show conservatism and avoid changes, even when they are urgent. We are led by reciprocity and often turn our back to our own interests: we are ready to allocate resources and efforts to encourage those, who behaved fairly, and to penalize injustice.

In general, most of the people do not succeed in maximizing the expected usefulness and apply simplified but wrong strategies for decision-making and make better choices when having limited number of alternatives. They often act against their own interest: they postpone important things such as prophylactic examinations, qualification and saving for retirement, they stick to the option implicitly even if it is not the best choice of theirs, invest unreasonably, tend to accept tricky advices and to vote for unreasonable political projects, etc.

All these are examples of behavioural failures, which cannot be integrated in the picture of neoclassical economics. They are manifested particularly strongly at: time discrepancy between decisions' benefits and losses (savings and insurances, consumption of alcohol or other problems of self-control); need of expert knowledge (choosing a leasing plan or another financial product); low repetition of decisions and impossibility to learn from experience (family binding, purchase of home and car, how many children to have and the choice of a career); bad feedback (healthcare,

education and savings); choosing among unknown alternatives (working place, medical procedure, school or vacation package); experience accumulation is damaging (the negative dependences). (Thaler & Sunstein, 2014). The list practically means that there are behavioural failures in almost all situations and activities, except the repeating simple deals. Besides, they are universal. Despite his intelligence, education, experience, wealth or influence, at certain circumstances and regarding certain issues, each one of us is limited within his rationality, self-control and egoism. (Mullainathan & Thaler, 2001).

Not considering the limitation of rationality, self-control and egoism and the resulting behavioural failures prevents neoclassical economics from presenting correct descriptive picture of human behaviour and forces for its idealized understanding for „Homo Economicus“ to be corrected. A new stream in the theory of economics that became popular as behavioural economics¹ tries to put the real human and the behavioural failures in the centre of the economic analysis attention in the last forty years. Its goal is to improve the reality and quality of economic analysis, which would result in better prognosis of the real humans' behaviour and in formulating better recommendations for the followed policy. (Camerer, et al., 2004).

The present article aims to summarize the achievements and challenges ahead of behavioural economics in achieving its purposes. It would track the sources and the logic of its development, would present its main achievements worldwide and at home and would outline its role and perspectives within the frame of modern economic sciences and the state governing practice.

Sources and Development

The roots of the behavioural economics' methodological approach are in the remote 1759. Then the 35-year old teacher in Ethics in the University of Glasgow Adam Smith publishes his first big work, Theory of Moral Sentiments. There he uncovers some features of human behaviour that cannot be integrated in the idea for the “economic person”. (Ashraf, et al., 2005). Among them are the over-confidence

¹ Some authors (Angner & Loewenstein, 2012) consider that the more correct name is „cognitive“, not „behavioural “ economics. Our opinion coincides with this position. The term „behavioural “ is not correct because of two reasons. First, it is not informative as far as all economic streams' subject is human behaviour and in this sense, they are all „behavioural“. Second, it is tricky. behavioural economics' methodological fundament is the cognitive psychology, not the behaviourism. Behaviourism in psychology is not only a counter point of cognitive psychology, but it is also the stream, on which the foundations of neoclassicism are constructed – the economic paradigm, which is the main object of critics by the behavioural economics. When introduced in 1958, its authors Harold Johnson and Kenneth Boulding perhaps did not consider these two arguments, may be because of the cognitive psychology condition at the time, too. Then traditionally the mistake is repeated and as much as it is repeated, the less noticeable it becomes. This demonstrates how the behavioural economics itself is victim of the deformations it is called to uncover and neutralize.

(„the haughty self-reliance on the own capabilities that most of the people possess“) and the lack of foresight at choices that regard the future („the pleasure we will get in ten years is interested for us much less compared to what we can enjoy today“). Adam Smith also reasons for the first time about avoiding losses, pointing that we suffer more when we fall from good to worse state than we enjoy it when the state changes from bad to better. He admits that we possess the natural trend to take care of ourselves because prudence dictates so. However, as far as we are also social beings, we are gifted with natural sympathy with the others, with striving towards justice and virtues like involvement, self-control, self-criticism and conscience. In the process of taking many of our decisions, we do not need to think, but we are led by ethic rules and norms. Despite our passing emotions and interests, the raised by them “sentiment of duty”, proud and shame help us observe the principles of moral and unpremeditatedly to contribute to the others’ happiness and to the public peace. For Adam Smith legal penalties and encouragements may be aim the same results but they could never be so consistent, immediate and effective as conscience and moral rules dictated by nature and society.

Psychology and sociology do not exist as independent behavioural sciences in the first years of economic theory development and economists pay considerable attention to moral, sentiments, human impulses and emotions. Their theoretical tools like the Law of Diminishing Marginal Utility for example, use psychological arguments. Despite the proclaimed respect to Adam Smith, since the 70^s of the 20th century, influenced by the works of William Jevons, Karl Menger, Leon Walras and Francis Edgeworth, economic theory takes away from his intellectual heritage. Then the emerging neoclassical paradigm starts referring more and more critically towards the hedonistic assumptions of Jeremy Bentham’s Utility Theory, economy gains the image of a natural science that explains human behaviour as rational and relies fundamentally solely on the behaviourist stream of psychology. The human act itself becomes its problem, not the motives behind it; the results, not the processes that caused them; what people do, not why they do it; what the problems in the relations between the separate agents are, not the problems in each one of them. (Camerer, et al., 2004).

The neoclassical models of rational choice dominate in economics until the end of the 20th century. Economics and the other social sciences use them to explain

in logic and convincing way not only the behaviour of the market and how the companies stimulate their employees and the consumers react to the changes in prices. Neoclassical economics' application field considerably broadens in the course of years and includes such issues as voting at elections, family behaviour, education and healthcare, dependencies, criminality, terrorism and armament.

Neoclassical stream attracts numerous researchers but the searches of some of them lead to results that contradict the neoclassical theories that had inspired them. Strong is the critics coming from other sides, too. In his *General Theory of Employment, Interest and Money* John M. Keynes uses many times as arguments „animal instincts”, “spontaneous optimism”, „money illusion”, „tendency for stubbornness in making mistakes” and other social-psychological characteristics that cannot be attached to the understanding for the optimizing „Homo Economicus“. Fr. Von Hayek also emphasizes that Rational behaviour is not a precondition in economic theory although it is often presented to be. The theory's main statement is rather that competition would make people act rationally in order to make their own living.“ (Hayek, 1998, p. 98). Enough evidence appears in the second half of the 20th century that the principles of rationality are unrealistic and that the economic theory evolution anticipates considerably human evolution. This gradually restores the connection of economics with the rest of the behavioural sciences, directing researchers' attention towards actual behaviour and psychology new achievements in fields like thinking, problems solving and decision making.

In the middle of the 50^s Herbert Simon (1916 – 2001) proves that economic agents, even if they want to maximize their wealth, they do not have the necessary information, cognitive capacity and time to process the available information and instead of following the postulates of rationality, they find “satisfying” solutions. As far as they are not able to catch and make sense of all the available information, they react consciously to only a small part of it and act in a way different from the way they would follow at the availability of all the information.

In the beginning of the sixties Vernon Smith (1927 –), also awarded Noble Memorial Prize in Economic Sciences in 2002, brings into question some of the basic assumptions of the rational choice model, which concern markets functioning. V. Smith conducts experiments to simulate markets functioning. This sets the beginning of the so called „experimental economics“ and results in a remarkable

discovery: although the participants in the experiments do not have full information and are not always rational in their behaviour, market equilibrium is anyway achieved. This means that in methodological aspect we do not need rational individuals to explain the rational market result.

In 1967, the German-born American psychologist Ulric Neisser (1928 – 2002) published his work of Cognitive Psychology, with which he gave the name to this new branch of psychology. He develops it as inter-disciplinary stream that unites intuitive models of classical philosophical thinking with the experimental psychology's empiric approach.

A year later, in 1968, Howard Raiffa published his book „Decision Analysis: Introductory Lectures on Choice Under Uncertainty“ and sets the beginning of modern decision making theory. The same year he, John Hammond and Ralph Keeney publish an article that describes seven psychological traps, which could negatively influence the way of decision making, namely the traps of: (1) anchoring – giving disproportionate weight to unessential incidental information; (2) status quo – sticking to the present choices even if better alternatives exist; (3) the sunk cost – binding and consecutive repetition of mistakes from the past; (4) confirming evidence – looking for status quo confirming information and discounting opposing information; (5) overconfidence – overestimating the accuracy of own forecast; (6) the prudence – over-caution at estimating uncertain events; and (7) the recallability trap – giving undue weight to recent, dramatic events.

The ideas of Herbert Simon, Vernon Smith, Ulric Neisser and Howard Raiffa are the base for a huge jump for the economic agents' behaviour understanding. It was carried out by the Israeli cognitive psychologists Daniel Kahneman (1934 –) and Amos Tversky (1937 – 1996) in the last quarter of the 20th century. They discover number of features of human thinking that offer natural explanation of observed reactions and anomalies in the made decisions.

The first important conclusion out of Kahneman and Tversky's studies is that thinking is dual and is predominantly automatic, not rational. (Tversky & Kahneman, 1974). Automatic thinking resorts to what comes to our mind without efforts. In great part of the time, instead of making complicated calculations and thinking over all possible ways of acting we prefer simple decisions and use “short mental paths” or “heuristics”. Our ability of elaborating intuitive assessments plays the main role in this

way of thinking and acting. It has formed long before logic thinking developed and is common for humans and animals. Intuition is characterized by speed and automatism necessary for surviving. It is based on the accumulated knowledge and experience from the past but often has no answer to the more difficult issues we face in our social interactions, in professional field or in economic relations. Then intuitive system consults rational thinking. It is slower, is managed by formal rules, has a lot of knowledge and this makes it flexible, but at the same time is way lazier and tend to save its efforts.

The last fact is easily explained. Brain is very powerful tool for assessment and decision-making. However, it is much ineffective. Typical human brain is just two percent of the total body weight but consumes 20% of the body energy. More, its energy ineffectiveness does not even allow its full capacity to be used. Brain cannot set in simultaneous operation more than two percent of its neurons. If it exceeds that limit, the reserves of the used fuel – glucoses – exhausts so rapidly that the person loses consciousness. (Medina, 2011). Because of these restraints, each economy of intellectual efforts and time is much desirable. That is why, when possible, consciousness always acts intuitively and processes automatically sensuous signals as well as the information about gains and losses, wealth, prestige and social hierarchies. Intuitive system quickly and imperceptibly pre-formulates the received information into its abstract representation and leads to the relevant act.

The second revolutionary contribution of Kahneman and Tversky comes in 1979 with their article Prospect Theory: Decisions Under Risk. (Kahneman & Tversky, 1979). Here they present evidences for number of animalises that contradict the Expected Utility Theory and offer an alternative theory, based on several principles: separate estimating of each possible outcome toward particular reference point, losses exceptive avoidance and asymmetric estimation of benefits and losses, different attitude towards the risk at gains and losses. Their article is published in the renowned magazine of *Econometrica* and is one of the most cited publications of the magazine – more than 40 000 times.

When Daniel Kahneman summarized his ideas in his book *Thinking* in 2011 (Kahneman, 2012), the *Economist* magazine compared the scholar's achievements with the ones of Copernicus and Darwin: „As Copernicus removed the Earth from the centre of the universe and Darwin knocked humans off their biological perch,

Mr Kahneman has shown that we are not the paragons of reason we assume ourselves to be“. (The Economist, 2011). Actually, Kahneman’s position is a way more moderate. According to him, „The main feature of agents is not that they reason wrongly, but that they often act intuitively. And that their behaviour is not guided by what they are capable to calculate, but what they happen to see at the certain moment“. (Kahneman, 2003). Said in other words, the problem behind the often lack of rationality is not that people are fool of undereducated but that they are driven by intuition and emotions, i.e. that they are humans.

The collaboration of Kahneman and Tversky’s in the 80s of the 20th century with the then young American economist Richard Thaler (1945 –) results in the occurrence of behavioural economics as a separate stream of economic theory.

Behavioural anomalies that cannot be explained by the traditional economic models become motive for progress and main object of research in the first steps of behavioural economics. It is revealed they are natural and systematic and this allows them being studied and being predictable. To analyse them, behavioural economics integrates the newest theories and hypothesis of economics and the latest achievements of cognitive psychology, social psychology, psychophysiology, evolutionary economics, sociology and even neurology. Within this integration, behavioural economics takes from traditional economics the interest towards decision’s results, from the cognitive psychology and neurology – the interest towards the very process of decision making, and from sociology – the interest towards environment and norms impact. It is already interested in not only what choice people make but also why they do it and what processes define their ratiocinations, estimations, decisions and actions. Thus understanding about human behaviour is achieved, where the assumption for rationality is corrected.

Behavioural economics ideas do not exhaust with the explanation of human behaviour and behavioural deviations from rationality. Predictability of behavioural failures allows them not only being recognized and reported but also being overcome. (Ariely, 2012). Two articles published in 2003 – Libertarian Paternalism (Thaler & Sunstein, 2003) and Regulation for conservatives: Behavioural Economics and the Case for the Asymmetric Paternalism (Camerer, et al., 2003), point the intellectual connection between the condition, in which people make behavioural mistakes and the questions whether, when and how these mistakes to be corrected.

The conclusions turn behavioural economics into political doctrine that gives the grounds of new responsibilities and new scope of tools for the state to intervene, which change the context of individual choices the way that they: (1) increase individual wealth and help people achieve their own normative preferences and (2) do not limit the individual rights and freedom of choice. In 2008 this doctrine gets its own popular name – „nudge“ (Thaler & Sunstein, 2014), although the authors of the book bearing the same name prefer it to be called „Libertarian Paternalism“.

Nudging as Contribution in the Ideology and Tools of State Regulating

„Each form of intervention in individual choices, if it contributes to the effective removal of the problems with behavioural failures“ is desired and acceptable for behavioural economists. (Rizzo & Whitman, 2009). Thus, in contrast to neoclassical paradigm, an extensive state intervention is allowed including the cases, when the decisions regard only the ones, who take them (even at the absence of failures and distribution problems).

The scope of tools and methods of governmental intervention is extremely wide. On one hand, behavioural economy re-estimates many of the traditional plans and regulatory tools, suggesting conceptual frame for ones and has serious doubts on the effectiveness of others. On the other hand, it introduces new, non-standard tool of „behavioural“ policy in society’s agenda. Their character is paternalistic and they may have impact upon: (1) the results, without disturbing people’s actions or opinions (automatic transfer of additional mandatory insurance payments from private funds into the National Insurance Institute); (2) the actions, without changing the beliefs (the fines for exceeded speed limit); (3) the beliefs, aiming influence on the actions (educational campaigns on the damage of overweight); (4) the preferences, no matter if it changes beliefs (the warning signs on the cigarette boxes and commercials).

However, not all tools of paternalistic intervention are equally preferred for the behavioural approach. (Sunstein, 2013).

First, the preferred is the paternalism that affects the means, not the goals. For example, if you would like to save funds, you’d better use energy-saving and reliable appliances. Directing your choice towards such type of appliances through information on the labels on the electric power consumption or through imposing standard of power effectiveness does not disturb your goal, but helps you achieving

it. Navigation systems integration in the automobiles has the same effect. You decide where you would like to go and the navigation system helps you do it with the least expenses of time and fuel. „Smart“ pedestrians with inscription „Look right“ or „Look left“ are also an example for tools paternalism. Focusing the attention on the correct direction, they just help the pedestrians to do safely what they themselves had decided to do – to cross the street. The same is with the regulations for mandatory belts in automobiles and helmets for motor-bikers, the labels containing the ingredients of food and the standards for their production. Paternalism of tools respects the individual goals – you to save, to move safely, to make informed decisions of your own interest – but considers that people’s actions are not always complied with them, and directs their actions in the correct direction.

Second, behavioural approach prefers the „soft“ forms of paternalism. These forms affect without imposing high expenditures. Examples are the small and moderate fines, the warnings, the educational programmes, the requirements for information about products, including the energy effectiveness and the fuel expense, the regulations on the place, time, packaging and way of selling of products, the options by implication and the automatic inclusion in a saving or insurance plan.

Behavioural economists support the „hard“ forms and the paternalism of goals in two cases. The first is when they bring much bigger benefits than expenses. An example is the imposing of energy effectiveness and fuel expense standards, the ban for drug use, the frightening pictures on the consequences of smoking upon the cigarette boxes that overexpose problems, etc. Paternalistic interventions are asymmetric in all similar cases: „... they do great good to the ones, who make mistakes, and at the same time, impose little or no expenses on those, who are completely rational. Such regulations are relatively harmless for the ones, who make decisions that correspond to their best interest, whole, at the same time, are favourable for those making non-optimal decisions“. (Camerer, et al., 2003). The second one is when they are demanded by John St. Mill’s harm principle. However, essentially such constraints are not purely paternalistic, because they are not grounded on protection of people’s own interests, but on the principle that everyone is free to do what he wants under the condition not to disturb anybody else’s rights. In these two cases, if the decisions are left to the people themselves, then they would strive for getting insignificant short-term benefits and would neglect the much bigger

long-term expenses for them as well as the damages they cause to the others with their own behaviour.

Third, libertarian paternalism prefers open, public and directed to rational system tools for „nudging“. They are meant for taking out of the automatic mode and for alarming the rational systems through drawing the attention and focusing upon the action, that is taking place at the moment. The „nudged ones“ are aware with these aims before undertaking action and if they do not accept them, they can follow another type of behaviour, too. Not opened, hidden and directed towards the automatic system „nudging“ works the way that the ones towards whom it is directed, cannot uncover neither the intentions nor the means, by which behaviour change is sought. No matter whether they cause unconscious or conscious reactions, their non-transparency does not allow people even to understand they are subject to correcting influence, and this means that practically, they do not have the freedom and cannot avoid it. As a result „nudging“ may easily turn into manipulation of others' choices and behaviour and open the door to their unconscious in order thoughts, desires, fears, worries or model of behaviour to be put inside to lead them to actions that are not of interest for them. And, as far as this happens non-transparently, „nudging“ would stay unnoticed and “the ones who initiate the nudging” would avoid the control on their actions and the responsibility for them.

The pointed three characteristics contain the contribution of libertarian paternalism to state regulation's ideology and the practice. It extends the boundaries of admissible state intervention in people's lives compared to neo-liberalism, but the position it proclaims is much more balanced, prudent and moderate than the one of traditional paternalists. However, critics are not few. Radical opponents of neoclassicism consider it too soft and inconsistent. Neoclassicism supporters consider it form of manipulation of civilians and of state directing them towards actions they have not agreed and cannot avoid. (Easton, 2014).

Critics and Reactions

The main critics are fed by the possibility for paternalistic manipulations. (Bovens, 2008). Limited rationality and will do not mean people are fool. They might be aware of their own deficit of self-control when they choose chips instead salad but consciously and certainly to prefer the first if they are not on diet. Why should someone intervene in their choice and change it? If „nudging“ is premeditated

attempt to influence others' behaviour and decisions, which is based on certain values and has certain goals, what is the guarantee that these values and goals comply with own values and goals of the nudged ones? How to guarantee that "nudging" is "for good" and how to avoid „evil nudges“? What makes libertarian paternalism's moral different from the one of traditional paternalism if, in the long run, it also forces people without their agreement and often without them being aware, to act in certain direction? How can the „initiators of nudging“ uncover „the real“ preferences of others if the latter, being rationally limited, are not aware of their own preferences and do not even think about them. If people cannot achieve what they would like to, because of their deformations, what prevents the „initiators of nudging“ from the same deformations they should save the others from?

Libertarian paternalism faces critics also because of the effect upon stimuli and responsibility of people. It establishes the relations between state and civilians after the model of the relations between adults and children. "Nudging" children is much easier than adults. That is why most often the „nudging“ ones behave in infantile manner with the "nudged" ones. In most cases their behaviour uses arguments, symbols, words and intonation as if speaking of children with impediments in their growth or mentally ill. Manipulative potential of that is dangerous and should be taken into consideration. If someone behaves with a person this way, as if he is unconscious child, then his reaction would be lack of critical estimation and the desired behaviour and choices would be easier achieved. (Chomsky, 2016).

Infantilization of civilians is a problem because of yet one more reason. It creates danger of state intervention escalation: the more infantile and deprived of stimuli to develop their good decision making potential the civilians are, the more care from the state they need; but the greater these cares are, the bigger civilians' irresponsibility and dependency grow. (Furedi, 2011). Thus, practical application of "nudge" tools may result in self-performing prophecy: decreasing ability of people to learn from their mistakes and to make good decisions would lead to more people making wrong decisions, which, on its part, justifies new interventions through „nudges“. (White, 2013).

Not the last, libertarian paternalism is also criticized for it uses peripheral mechanisms for influence and can achieve only shallow and short-term changes. (Cialdini, 2005). As far as it avoids the main way of influence, it does not provoke

long-term transformation of attitudes and is not able to lead to long-term changes in behaviour. (Salazar, 2012; Goodwin, 2012).

All these issues are serious and behavioural economics agrees they have their grounds. It admits they cannot be overcome solely through greater attention towards the selection, expert background, moral and motivation of the “choice architects”. Two more types of measures are necessary. The first one is to use predominantly the forms of soft paternalism and transparent nudges that are directed towards the rational system, and to avoid hard paternalism and non-transparent nudges, particularly the ones using the automatic system of thinking as a channel for influence. Second, emphasis should be put on enhancing personal responsibility of people for their own present and future well-being as well as on the formation of knowledge and skills in everyone to be able himself to “nudge” his own behaviour in the desired direction, to understand the techniques and methods used to be manipulated and controlled against his will, and to prevent himself from undesired and „evil nudges”. The latter means to pay serious attention to study and increase critical weight of factors that raise the rationality level, for example education, specialized training on the reasons for behavioural mistakes and techniques for prevention from them, building public values and norms, construction of self-control supporting infrastructure, etc. (Prentice, 2015).

New Theories and Recognition

Despite these critics, behavioural economics gains new territories in the recent years. The main reason is that it works, where the others fail. While the economic processes surprise the adherents of traditional approaches in the first decade of the new century, behavioural economists succeed in prognosticating them. Robert Shiller with his book *Irrational Exuberance* (2000), Hersh Shefrin, author of *Beyond Greed and Fear: Understanding behavioural Finance and the Psychology of Investing* (2000), Andrei Shleifer and Meir Statman, authors of *Inefficient Markets: An Introduction to behavioural Finance* (2000) have significant contribution to that.

All those give some of the behavioural economists grounds for direct attack against the dominating neoclassical economic theory. „We pay awful price for our blind faith in the power of the invisible hand“, Dan Ariely considers. „Neoclassical theory is inaccurate. It does not allow us to understand why economy progresses at leaps.“ – Nobel laureates George Akerlof (1940 –) and Robert Shiller (1946 –)

diagnose in their book *Animal Spirits*. And explain „how economy actually functions, when people are really human“, they present ambitious programme: „To achieve what existing theory have not been able to realize“.

Behavioural economy adherents gain bigger and bigger recognition within the economic sphere since the beginning of the new century. In October 2004 Eugene Fama, the founder of effective markets theory, admits for *Wall Street Journal*: Shares prices could become irrational to a certain extent. Even Alan Greenspan, who serves as pillar of neoclassical ideas for many years and leads United States Federal Reserve between 1987 and 2006, notes that behavioural economics does not enervate completely neoclassical approach but plays crucial role in the process of investors' decision making: September of 2008 is turning moment for all analysts, including me. It forces for our macro models to include animal instincts, which dominate finances.

Symbol of the recognition of behavioural approach achievements and possibilities is the prizes of the Swedish Central Bank in memory of Alfred Nobel, awarded to Herbert Simon in 1978, to George Akerlof in 2001, to Daniel Kahneman in 2002, to Thomas Schelling in 2005 and to Robert Shiller in 2013, as well as the John Bates Clark medal for Andrei Shleifer in 1999 and for Matthew Rabin in 2003 and the bronze medal of the French National Center for Scientific Research (CNRS) for Davis Masclet in 2012.

Cognitive deviations referred to as „curio“ by traditional economists, are studied already in details in respected academic editions. The number of their publications and quoting increase exponentially. The three specialized editions in the field of behavioural economics – *Journal of Economic Behaviour & Organization*, *Journal of Economic Psychology* and *Journal of behavioural and Experimental Economics* (former *Journal of Socio-Economics*) – are prestigious and have a high rating.

Today behavioural economics is taught and developed in the most prestigious American universities – Harvard University, the Massachusetts Institute of Technology, Stanford University, Berkeley, University of California, the University of Chicago, Columbia University and Princeton University. Leading in this field in France is the Group for Economic Analysis and Theory (GATE) in Lyon and in the Toulouse School of Economics. In Canada – this is the University of Toronto. In

Great Britain – it is the London School of Economics and the University of Warwick. The Institute for New Economic Thinking – a brain trust, founded in 2009 thanks to the fifty million dollars donated by George Soros – also puts behavioural economics in the centre of its researches.

The application field of the stream is also extending. Similarly to the neoclassical approach „economic imperialism“, it gradually embraces the traditional territories of many other social sciences. behavioural Law and Economics (Jolls, Sunstein & Thaler, 1998; Sunstein, 2000), Behavioural Finances (Shleifer, 2000), Behavioural Economics of Development (Mullainathan, 2010), Behavioural Public Finances (McCaffery & Slemrod, 2006), Behavioural Theory of Games (Camerer C., 2003) and behavioural Macroeconomics (Akerlof, 2003) develop as separate branches. All of them are on their way up and not only extend the influence of behavioural economics, but also enrich its core, supplying it with new ideas, examples and arguments.

Behavioural economics enjoys up going success yet among the wide audience. Readers buy as hot cake books like *Blink* by Malcolm Gladwell, *Nudge* by Richard Thaler and Cass Sunstein, *Influence: The Psychology of Persuasion* and *Pre-Suasion* of Robert Cialdini and Dan Ariely's *Predictably Irrational*, being thirsty to understand why they take „wrong“ decisions so often and how to avoid them.

Even film industry turns directly to behavioural economics. The film that got five Oscar nominations in 2016, *The Big Short*, presents not only the understanding of behavioural economics about the world financial crash of 2008 and how human ignorance, stupidity, thoughtlessness, negligence and carelessness, combined with greed and arrogance, can collapse economy and civilization for a day. The film uses also behavioural economics' advices how pretty complicated financial terms and operations should be communicated – the explanation should be simpler and should be made by liked people, who dominate media space.

Within the last decade behavioural economists increase considerably their political influence, too, and applications of their suggestions can be found in fields like healthcare, savings, finances, traffic safety, employment, discrimination, environmental protection and consumer protection. (Sunstein & Reisch, 2017).

Lasting interest towards the behavioural economics' ideas exists in Great Britain, too. The first in the world specialized team – behavioural Insight Team, BIT,

functions to the prime minister's office since 2010. BIT work gives practical results and its ideas for improving safety, education, social protection, healthcare, tax and fines collectability, energy efficiency, alcohol and cigarettes consumption reduction among young people, consumer protection and organs donation registering are already in operation. Only for the period 2011-2012 BIT work has brought benefits that exceed the expenses for its functioning 22 times. According to current data, the savings from the group's introduced recommendations within the next five years would make up more than one billion pounds. In 2014 the group consisting of 14 members working in London is partially privatized. Its members are about 100 people now. They are based in London, Manchester, New York, Singapore and Sidney and fulfill tasks of the governments of USA, Great Britain, Australia, Canada, the Netherlands, Mexico, Moldova, Poland and other countries.

As president of the United States, Barack Obama also refers to behavioural ideas many times in his speeches. In addition, he states that he „grounds his policies not upon abstract models... but upon real fact about how people act“, i.e. cleared from the delicacy of the expression that is led not by the neoclassical but by the behavioural economics. The Time Magazine calls the group of his 29 close advisers, among whom Richard Thaler, Dan Ariely, Cass Sunstein and Daniel Kahneman, „behavioural dream team“, which goal – „to transform the state“, is pursued with the behavioural economics recommendations. (Grunwald, 2009). Since 2014 a subcommittee to the National Science and Technology Committee functions in the White House – Social and behavioural Sciences Team, <https://sbst.gov/>. The group works actively and publishes annual reports and many of the behavioural economists' suggestions are already realized in practice – the ideas for health insuring and retiring plans 401(K) reforms, attracting of servicemen to the TSP saving plans, greenhouse gases reduction, organs donating organization, tax return system, the obligatory information about energy efficiency, fuel expense and the products contents. (Social and behavioural Sciences Team, 2016).

Great Britain and the USA are not the only ones interested in the behavioural approach. „Nudge“ mechanisms are applied in more than 150 countries (OECD, 2017), and in many there are functioning formal structures that elaborate, suggest and introduce initiatives based on behavioural economics. An Innovation Hub to the Privy Council Office consultative committee is established in 2015 in Canada. The

Hub collaborates with Canadian universities and scientists interested in behavioural approach for conduction of its experiments. In 2016, the Australian government establishes Behavioural Economics Team, which functions as part of the prime minister's office. Centralized consultative structures exist also in Chile (Laboratorio de Gobierno), in France (Secretariat-General for Government Modernization), in Germany (Staff of Policy Planning Unit, the Federal Chancellery), etc. The approach in the Netherlands is different, 11 ministries and regulative bodies are included in the network behavioural Insights Network, initiated in 2014. The Ministry of Economics is assigned the role of network's secretariat, which connects the groups and experts from various ministries and ensures the collaboration and knowledge sharing. European Commission uses the behavioural approach yet in 2008. At first, behavioural ideas develop within the Commission's research center, Joint Research Centre (JRC). Specialized part is set in JRC since 2014 – Foresight and behavioural Insight Unit (FBIU), and since 2015, one more section functions to the EC – the EU Policy Lab. In 2016 FBIU analyses the progress of the behavioural approach application in the member states and publishes its conclusions. (European Commission, 2016). The reports Green Behaviour (2012) and Nudging the Lifestyle for Better Health (Piniewski, et al., 2011) are among the EC publications, again full of behavioural recommendations. The analysis and recommendations in these and in other publications follow accurately the behavioural economics approach. Even the World Bank dedicated its report for the world development for 2015 to the behavioural economics. (World Development Report 2015: Mind, Society and Behaviour).

Unfortunately, behavioural economics is little known territory at home. Although the most significant western works are already translated in Bulgarian, the efforts for complete presentation of behavioural ideas by Bulgarian authors exhaust by two theoretical studies – my own Architecture of Choice. The Advices of behavioural Economics (2016) and the student book by Atanas Atanasov from University of National and World Economics, behavioural Economics (Atanasov, 2013). There are also few interesting and promising progress studies in the fields of cognitive psychology, organizational relations and behavioural finances. Among the examples are the works of Georgi Karastoyanov in the field of cognitive psychology and particularly his book Psychology of Premeditated Influence (Karastoyanov, 2012)

and the study of Marin Paunov in the field of organizational behaviour, Human Emotionality in Behavioural Sciences and the Practice of Management (Paunov, 2015).

More quality scientific products are seen in the field of behavioural finances. Standing out among them is the book of Boyan Ivanchev, *Everybody Can Invest Successfully if Avoids Illusions and Irrational Behaviour* (Ivanchev, 2013), also two articles by Teodor Sedlarski and Gergana Dimitrova from Kliment Ohridski University of Sofia – *Basic Concepts in the behavioural Finances Theory* (Sedlarski & Dimitrova, 2014) and *The World Financial Crisis and the behavioural Finances Perspective* (Sedlarski & Dimitrova, 2016); few publications of Alexander Apostolov from the University of National and World Economics – *Key Concepts in the behavioural Finances Theory* (Apostolov, 2015), *Projection of Profitability of Stock-Traded Assets with Considering Investors' behavioural Characteristics* (Apostolov, 2015) and *behavioural Approach for Projection of Financial Assets Profitability* (Apostolov, 2016) as well as Tsvetan Pavlov's article, *Application of behavioural Finances at the Modelling of Bulgarian Shares Risk Premium* (Pavlov, 2015) stand out. Nevertheless these positive trends and the increasing interest towards behavioural problematic among the Bulgarian scientific community, the field is still little researched.

Conclusion and Perspectives

Behavioural economics is still in the beginning of its development and regarding the methodological aspect, it still does not offer neither systematized knowledge, nor even „standard number of terms and classifications“ (McAuley, 2008). It is early to pronounce it new economic school, yet less pronounce it radical counterpoint of neoclassical paradigm and kind of “revolution”. (Tomer, 2007). Libertarian paternalism considers governmental intervention tool for drawing closer the observed behaviour of the rationally limited individuals and the theoretical ideal for complete rationality. In this sense, it does not part from the usual notions of rationality. Just the contrary, it appeals for their most consistent practical application: „The irony is that, attacking „Homo Economicus“ as empirically false description of decision making process, (the libertarian, author's note), paternalism presents it as a model people should strive for. Or rather – as model of a person, the kind paternalists themselves would like to exist.“ (Leonard, 2008). Even though being

engaged with the positive and perspective issues, behavioural economics does not exchange but corrects and returns neoclassical theory back to its classical roots, supplementing it on one hand, and on the other hand makes some of the assumptions about human behaviour more realistic. (Thaler, 2016). The perspectives theory, the avoiding losses concept and hyperbolic discounting are examples for the first. The ideas for the two mental systems, the heuristics and deformations, limited will, social influences and concern about justice are examples for the second one.

Although deep and long-term consequences of the behavioural approach are still in germ, they manifest brighter and visibly. According some researchers, we are even witnessing already the transition from traditional „state of prosperity” to a newly structuring model of “new paternalistic state“. (Saint-Paul, 2011). Of course, it would be naïve to believe that the formation of “state of new paternalism” results directly from the occurrence of behavioural economics, the persuasiveness and the widely spreading of its ideas. However, it would be wrong to underestimate behavioural economics’ role. It gives theoretical grounds and intellectual support to many, elemental until recently, and imposed without any theoretical grounds, forms of governmental intervention and it is this way rationalizing and justifying them. At the same time, it suggests many new, improved paternalistic policies. In the words of J. Saint-Paul „thanks to it the last bastion of rationality in social sciences, what until recently was economics, fell“. (Saint-Paul, 2011). By all that, paternalistic economics contributes to strengthening the paternalistic trends in the functioning of modern states. Is that trend useful? Future will answer.

Has, as a whole, behavioural economics succeeded giving an adequate picture of human behaviour and explaining the choices we make? Here the answer is rather negative either. First, because its conclusions are not final and many more studies are necessary in order to be completely confident of their rightness. Second, many more and more different points of view are necessary to solve social problems. behavioural economics increase the possibilities of economic analysis and succeeds there, where others fail, because of its wide frame, which crosses the borders between behavioural sciences and unites their scattered pieces into united new integer. But, as it is with putting frames regarding personal choices, the behavioural economics’ frame is not perfect either and is not able to give a complete picture of human behaviour. It is only one of the tools that allow to solely get closer to the truth.

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Functional characteristics and development of the idea for control

Abstract: The material reviews the essential characteristics of the social phenomenon „control“. The analysis of the reasons for the control origin uncovers two lines of meaning – one, where control is critical social attitude and the other, where control is a basic managerial function. Both inceptions' tracking creates possibility for the control being accepted as a key factor for society's development because of its possibilities to impose norms, to introduce results analysis and on this ground, correctives in the behaviour of all socially active subjects to be introduced. The chronology analysis of the development of the idea for control predetermines the establishment of complete and systematic notion about the fact that a phenomenon of a long history possesses high potential for wide application, which can be thought and worked on in the future. Uncovering the characteristics of the social phenomenon “control” proves this is not easily achievable goal and, because of that, the tasks are limited in a way concerning number and volume. The presentation is grounded on the predominant use of analytical methods and proves the society and its development would have achieved far weaker and unsatisfying results in all fields without control.

Keywords: control, norm, feedback, result, critical attitude.

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Функциональная характеристика и развитие идеи контроля

Аннотация: Материал рассматривает сущность характера социального явления „контроль“. Анализ основания для возникновения контроля открывает две смысловых линии – первая, при которой контроль является критическим общественным отношением, и вторая, при которой контроль является основной управленческой функцией. Отслеживание этих двух линий создает возможность восприятия контроля в качестве ключевого фактора для развития общества из-за его возможности устанавливать нормы, проводить анализ результатов и на его основе вносить коррективы в поведение всех социально активных субъектов. Анализ хронологии развития идеи контроля предопределяет создание полного и системного представления о том, что такое явление с долгой историей имеет высокий потенциал для широкого применения, и по вопросу которого можно думать и работать в будущем. Раскрытие особенностей социально-

го явления „контроль“ доказывает, что оно представляет собой нелегко достижимую цель, и поэтому его задачи, в определенном смысле, ограничены и по количеству, и по объему. Данная выкладка основывается преимущественно на использовании аналитических методов и доказывает, что общество и его развитие без контроля могли бы достигнуть гораздо более слабые и неудовлетворительные результаты во всех сферах.

Ключевые слова: контроль, норма, обратная связь, результат, критическое отношение.

Эволюция человеческого общества имеет объективную потребность в контроле. Его богатая история доказывает общественную значимость контроля, как необходимого атрибута социальной среды. Появление контроля связано с началом человеческой сознательной деятельности. Развитие и совершенствование контроля связано с достижениями человеческого гения в области социального развития. В связи с этим сущность контроля является научно обоснованной для переосмысления и экспонирования в естественную среду социального окружения, которое развивает и обогащает конкретные формы проявления. Суть контроля является выражением наиболее важной и существенной стороны, определяющей внутреннюю относительную устойчивость и глубину процессов, явлений, отношений, которые проявляются с помощью форм и методов воздействия.

Определение понятия „контроль“ и его исследование может быть осуществлено с различных точек зрения. В теории управления встречается множество определений сущности контроля, которые, в преобладающих случаях, только касаются внешних форм его проявления и конкретного способа его существования. Большинство авторов рассматривают его в качестве функции государственного управления, точнее как и организацию в системе государства и совокупность функций, в продолжение государственным функциям, которые прослеживают изменения параметров системы и т.д. Последовательность мнений может выглядеть еще более внушительно и подробной, но это не меняет общий вывод: государственная функция, управленческая функции, система управления и т.д. все это внешние стороны и признаки конкретной формы существования контроля. В изложенных выше и в других мнениях отсутствует

внутренняя сторона, логика происходящих процессов, устойчивых характеристик общественного отношения, потому что контроль появляется до государственного устройства и его форм управления, до формирования структур, систем и функций в них.

При осуществлении контроля в каждой экономической системе очень показательной для эффективности процесса является возможность регистрации и анализа уровня определенных факторов. Во-первых. Фактическая степень реальной заинтересованности и участие отдельных лиц и групп в строгом выполнении делегированных им функций и задач. Во-вторых. Качество выполнения при отсутствии контроля. В-третьих. Качество выполнения в принудительном порядке проведения контрольных мероприятий.

При формировании мнения о последствиях контроля всегда необходимо учитывать тот факт, что реализация производственно-технологической целесообразности - это результат, как дисциплинированного поведения личностей и их групп, так и творчества, активности и их инициативы при осуществлении своих функций в организации. Содержание контроля определяется непосредственной связью и постоянным взаимодействием между объектом и субъектом, их проявлениями в различных формах общественного управления. От развития социальной среды, от его совершенства зависит и отношение субъекта к объекту, внутренние механизмы воздействия и взаимодействия. Несомненно, общество и его структуры [1] нуждаются в контроле. Такой контроль помогает совершенствовать общественные отношения, докусировать силу воздействия на поведение личности или группы личностей, объединенных в достижении конкретной цели.

Социальный резонанс контроля и чувства разочарования в нем определяется историческими объективно и конкретно обусловленными культурными различиями организаций, образовавшихся из национальных культурных особенностей и организационной идентичности. Контроль, который осуществляется от имени общества в отношении составляющих его индивидов, социальных групп и организаций, известен как социальный контроль. Он опирается на авторитет всего общества и осуществляется с помощью аппарата, который она имеет возможности, и в т.ч. возможности господства и подчинения со стороны государства.

В качестве объекта социального контроля определяется соблюдение общественных норм и правил, которые обеспечивают целостность и устойчивость общества, интеграции индивидов, групп и социальных организаций в нем, обеспечивают решение общественно принятых целей и задач. Эти нормы, цели и задачи приобретают значение „социального порядка” или „общественного договора”. Сам факт общепринятости является результатом компромисса с целью избежать конфликтов и сохранить устои общества. В этом контексте социальный контроль призван игнорировать и регулировать противоборства отдельных лиц и социальных образований. Он является продуктом общественного консенсуса, к которому нужно стремиться, чтобы избежать конфликтов. Задачей социального контроля является регулирование отклоняющегося поведения [2], что, в отличие от господствующего образа жизни и нарушает правовые, нравственные, политические, религиозные, эстетические и другие социальные нормы.

На определенном этапе своего развития общество создает структуры и организации управления, как свой внутренний механизм действия. Различия в отдельных общественно-экономических формациях (образованиях) являются результатом измененных соотношений в способах производства и потребления, противоречий, выраженных в виде власти и управления. Эволюция человека является результатом строительства и модернизации конкретной структуры общества, базирующейся на определенном объективном, необходимом, личном участии в конкретной степени общественного производства. Такая структура фиксирует динамизм, подвижную сторону общественного развития, и предопределяет его возможности для реализации определенной цели. В теории управления существует множество определений понятия „управление”, но не хватает удовлетворяющей всех точки зрения.

Определенные теоретики интерпретируют понятие „управления”, сравнивая его с социальными преобразованиями, и признают, что: „управление - это особый вид деятельности, который превращает неорганизованную толпу в эффективную производительную группу” [3].

Другая группа специалистов, рассматривая эволюцию человеческого общества, связывает его с развитием и совершенствование определенных общественных организаций и структур, предлагает следующее определение: „управ-

ление - это целенаправленный и эффективный процесс достижения целей организации посредством планирования, организации, мотивации и контроля над ресурсами организации” [4]. Существенным моментом в этом случае является сочетание основных управленческих функций - планирования, организации, мотивации и контроля с эффективным и рациональным достижением реальных целей организации.



Рис. 1. Функции управления

Управленческие функции каждого общества в динамике выражают возможности отдельных структурных единиц с целью оказывать управление и управляться. Сам характер управленческих функций фиксирует возможности каждой структуры ставить цели, организовывать, проверять и регулировать их выполнение. Структура, при необходимости, содержит контрольную функцию, которая определяет поведение системы и ее возможность развиваться в строго определенных параметрах до достижения цели. В этом контексте, возможно, наиболее удачным является определение: Управление может быть определено как установление конкретной системы значений, определение нормы $X_1, X_2 \dots X_N$ параметров функционирования управляемой системы, как система значений, $Y_1, Y_2 \dots Y_N$ параметров функционирования ее подсистем, постижение которых приводит к реализации значений $X_1, X_2 \dots X_N$ [5].



Рис. 2. Управление как система значений

В теории управления известно, что норма-это решение параметров, в которых развивается система, ее цель и цели для каждой подсистемы, каждого элемента и процесса. Контрольная функция проявляется не только для того, чтобы определить эффективность нормы, но и чтобы оценить качество принятого решения [6]. Здесь можно отметить, что норма не является каноном или догмой с конкретным ограничительным характером, а точным выражением, максимально удовлетворяющих значений принятого решения, уточняющего его значимость и потенциал. Управленческое решение в отношении совокупности и значения системы значений параметров X_1, X_2, \dots, X_N и Y_1, Y_2, \dots, Y_N подразумевает наличие нескольких компонентов.

Каждая норма, отражая конкретное управленческое решение связана с сочетанием определенного диапазона значений, управляемых и неуправляемых параметров. Классификация параметров осуществляется на основе объективной возможности субъекта нормы оказывать влияние на них, и особенно важно отметить, что и неуправляемые для указанной нормой параметры оказывают влияние на его формулирование.

В процессе формирования управленческого решения, анализируются возможные выходы, путем сопоставки со значениями результатных параметров и формируются несколько возможных выходов, обеспечивающих условия для установления критериев для выбора. Определенный выбор связан с возможностью достижения желаемых значений результативных параметров. Для его реализации необходимо наличие, по крайней мере, двух вариантов комбинаций значений управляемых параметров, ведущих к приемлемым для субъекта решениям результатов [7]. Процесс установления нормы при принятии управленческих решений можно рассматривать в двух аспектах в отношении контроля:

Во-первых. Контроль проявляется в отношении реальности выбранной нормы, ее правильной структурной упорядоченности во времени и пространстве, ее пригодности к возможностям системы, ее соответствия с лучшими достижениями в других системах. Оценка нормы системы с позиции установленных критериев и требований ведущих достижений в мире становится объективной необходимостью для развития и обязательным условием для воздействия при проведении контроля.

Во-вторых. Контроль делает оценку наличия количественных и качественных измерений в соответствии с нормой, точными характеристиками, контролируемыми параметрами. Норма, в которой нет времени и пространства, количественных и качественных измерений, обязанностей и стимулов, не поддается контролю. Она лишает управленческий процесс от нормального развития прямой и обратной связи, его сущности и содержания.

Предназначение контроля, как функции управления, заключается в обеспечении реализации и актуализации заданной целевой функции управляемой системы на основе принципа обратной связи. В соответствии с этим принципом, управление может быть проведено только тогда, когда управляющие получают информацию о ходе достижения заданного состояния. Несоответствие фактического состояния с заданным является тем коррекционным сигналом, который вызывает изменение в управлении и находит свое выражение в нескольких формах:

- повышения производительности, принятие регулирующих мер для более строгого соблюдения указанных стандартов операций по реализации;
- изменения в стандартах деятельности с целью их более полной адекватности и соответствия поставленным целям;
- коррекция заданных значений, включенных в целевую функцию управляемых переменных;
- изменения в структуре заданной целевой функцией.

В первом случае существует отрицательная обратная связь, которая обеспечивает реализацию запланированных значений целевой функции и обеспечивает выполнение определенных действий [8]. В остальных случаях формируется положительная обратная связь, которая обеспечивает информа-

цию о необходимости изменить выбранный способ функционирования организации, ее целей и задач в соответствии с изменениями в середине.

Путем реализации принципа обратной связи управление стремится, несмотря на влияние возмущающих и мешающих влияний внешней и внутренней среды, уменьшить различие между существующим и заданным состоянием. Обратные связи являются сложными причинно-следственными зависимостями, которые характеризуются тем, что результаты предыдущих действий, воздействуют на последующее функционирование управляемой системы.



Рис. 3. Схема реализации целевой функции организации

Процесс реализации контрольной функции проходит через две основные стадии, и в них регистрируются несколько основных этапов [9]:

Подготовительный этап:

- оценка планируемого состояния;
- установление стандартов для допустимых отклонений.

Существенный этап [10]:

- измерение фактического состояния;
- сопоставление фактического с планируемым состоянием и диагностика отклонений;
- регулирование.

Ход контрольного процесса в организации регулируется с помощью внутреннего стандарта контроля. Этот стандарт охватывает как технологические процедуры реализации контрольных мероприятий, так и обязанности на различных иерархических подразделениях и временных горизонтах управляющего воздействия.



Рис. 4. Теоретическая модель стандарта процесса контроля

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Analytic overlook of methodology of synergetics in postnonclassical science

Abstract. This article reveals main definitions of synergetics and methods that are being used in synergetic research. The differences-characteristics of classical, nonclassical and postnonclassical science and their schematic illustration are described. There are criteria, by which the main methodological principles of synergetics are being chosen. The reasons that have caused an appearance of synergetics and its methodological apparatus and the framework of this apparatus is considered. The special aspects of nonlinearity of complicated systems, which, in our opinion, include the economic ones.

Keywords: synergetics, postnonclassical science, methodology, paradigm, system.

Problem statement. During the last decades, dialectic method of thinking and investigating has given place to brand new – synergetic approach that is based on the principles of global evolutionism – the combination of sciences about wild-life and inanimate nature, sciences about social development. In field of economic research, this becomes a brand new level of cognition and provides brand new decision, which, in their turn, provide the optimization of economic processes' development and the effectiveness of economic growth and, in the last analysis, human well-being.

Effective development of Ukraine's national economy is as of today extremely current and complicated task. Systematic-synergetic aspects and methods of analysis of interrelation between economic processes and phenomena intend to protect the country's economy and increase the society well-being. They also will allow to consider the problem of effective development of country's economy not only as relatively separate system, but also as one that has synergetic relations with various subjects of systematic hierarchy of the country (political, organizational etc.).

There is a real opportunity of understanding and solving the tasks, which are connected to the processes of globalization and internationalization, given that

synergetics studies the regularities of appearance, formation, development and the functioning of the systems that are self-organized, nonlinear and open, Economic synergetics, as of today, is on the upswing and ground nonlinear processes of social development.

Analysis of the latest research and publications. Such domestic and foreign scientists as Korikov, A.M., Erohina, O.A., Surmin, Y.P., Pukhtaevich, G.O., Myasnikov, O.O., Zang V.B. have used methodological apparatus of synergetics in modern science.

Article concept. To determine the principles of using the synergetics as methodological approach in economic research.

Exposition of main material of the research. From synergetics's perspective, the economy is a self-organized, nonlinear, open and dissipative system. This system is characterized by multilevel various interactions of its components, the combination of negative and positive feedbacks, interrelation of variability and selection of components, alternation of attractors and homeostasis. These systems are the real structures in open, nonlinear environments, which place the evolutionary processes.

New science is an economic synergetics, which has appeared in the last decades, it forms its own methodology that is based on the laws of general synergetics and determines its categories and definitions.

Based on the above, we have defined the main definitions of synergetics's methodology and methods that are being used in synergetic research.

However, our research would be incomplete without an analysis and estimation of scientists' views on the synergetics as a picture of the world, on synergetics as a research methodology and on synergetics as a science. Such views have originated in different schools of synergetics's scientists and, as it turned out to be, are a force and sense of their investigation and development. They complement the general picture and knowledgebase about the synergetics – new postnon-classical research way of investigations of complicated phenomena and objects by dint of complicated modern means and methods etc.

Synergetics as a quite young view of the world has originated due to the necessity of finding adequate, reasonable, calculated and forecasted by science answers to global challenges that civilizational human development makes. Methods of synergetics, as stated above, are based mostly on the regulations of «immortal» science – mathematics.

Methodologically synergetics is open for those new conceptions that are being formed in certain disciplines. Synergetics is inheritable, because it falls into interdisciplinary sciences and is based on methodological framework of mathematics, cybernetics, philosophy etc. In addition, synergetics is self-applicable, because it describes complicated processes and phenomena etc., basing on modern view and cognition of the world. Synergetic methodology is a methodology of interdisciplinary communication and modelling of modern reality, is open for new views, knowledge, methods of research and world cognition – adaptive methodology of establishment and forecast of the most complicated processes and phenomena.

As a rule, in methodology of synergetics the scientists try to minimize a multivariable set of equations to small number of significant equations, that allows to hereafter analyze nonlinear dynamics by significantly shortening (compacting) the information.

It can be understood by synergetics:

1. Developmental systems theory (by V.S. Stepin) [1].
2. Theory of systems that are composed of many subsystems (by H.Haken) [2;3;4].
3. Theory of systems that go through the condition of instability and imbalance (by D. Chernavskii) [5].

Anyway, mathematic methods of synergetics create a multitude that grows and is a base of the methodology of synergetics.

At this date, synergetics is quite fast integrating in the field of liberal sciences, there are approaches of sociosynergetics and evolutionary economy. Methods of synergetics are being used in medicine, pedagogy, linguistics, psychology, history etc.

According to I. Prigogine and I. Stengers' ideas, right before our very eyes the new worldview is being born – dialogue of human and nature, where human has to realize his role and responsibility in his «community» with the nature laws [6].

For the day, fundamental science pays more and more attention to supercomplex systems, directs its development path into the field of high technologies, economy, forecasts, risks, which forces it to become on the one hand interdisciplinary, on the other hand – extremely precise and supercomplex, this science is called postnonclassical.

Postnonclassics as a science approach has originated in the end of XX century in tasks of the description of complicated, evolutionary systems and processes that evolve and self-organize, they can quite differently interpreted. Thus, the one, who interpret these tasks, becomes a surveillance subject of the process or phenomenon etc. He is provided not only with surveillance devices, but also with certain level of knowledge, with culture, psychology and society (social aspect's impact on his life perception and view of life).

Humanity has traveled the way to such understanding over the last century. From Newton's deterministic physics and Darwin's idea in biology through the principles of relativity theory (A. Einstein) to surveillance facility in quantum physics and hereafter through the modelling of development of the Universe, opening of the role of dynamic chaos and appearance of evolutionary natural science to modelling of historical systems that evolve. Quintessence (center, core) of these processes is a synergetics. However, it does not mean that its methods can and have to be commonly used, the methods of synergetics do not work where there is no development of the system (systems).

Postnonclassics is mostly pronounced in tasks of optimal making decisions, ecologic tasks including human's impact on the nature, economic tasks of determining human needs considering his psychology and society's possibilities.

Let us briefly describe the differences-characteristics of classical, nonclassical and postnonclassical science by the scheme of philosopher Stepin, V.S. [1].

Classical paradigm lies in the fact that human raises a question to the nature or any object and the object (nature) answers:

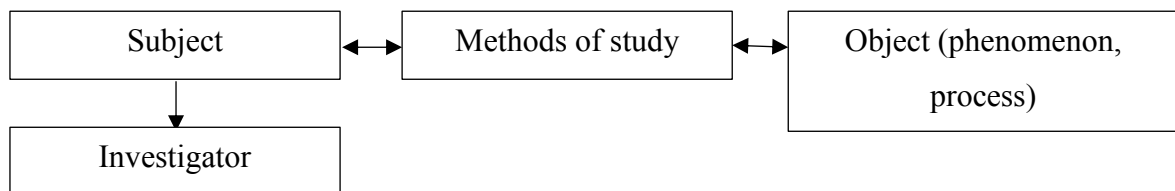


Fig. 1.5. Schematic illustration of classical paradigm's core

The investigation revolves only around the object. The impact of level of researcher's life perception does not count.

Nonclassical paradigm – investigator raises the question to the nature and receive an answer from it, but in that answer the object's aspects and the ways that his question's raising are considered.

The principle of the ratio of experiment's result to studying (surveillance) facility is emerging, i.e. there is an impact of surveillance act on the system (object), which cannot be neglected. It can be schematically illustrated in this way:

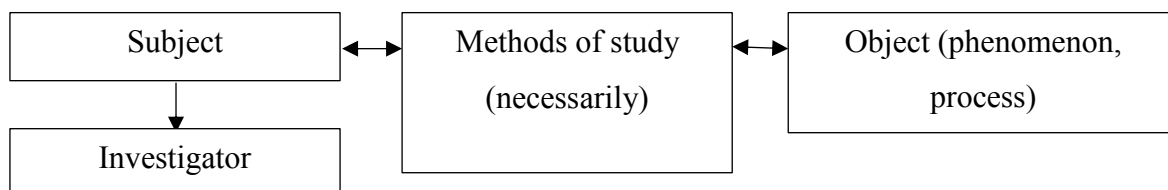


Fig. 1.6. Schematic representation of nonclassical paradigm's core

Express condition of nonclassical paradigm is the consideration of ways and methods of posing the questions and object's aspects.

Postnonclassical paradigm lies in the fact that the investigator raises the question to the nature, which gives an answer, but now the answer depends also on quality and characteristics of the investigator, object, ways of investigation, methods and level of understanding of the subject-investigator.

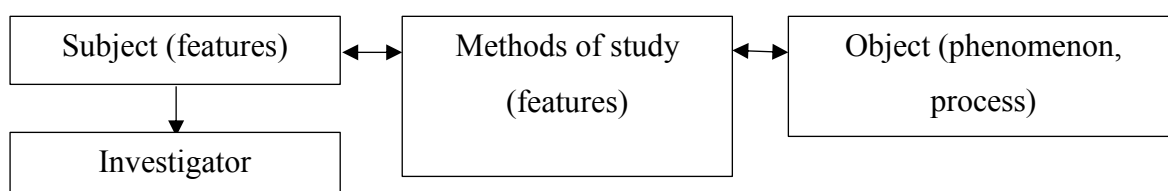


Fig. 1.7. Schematic representation of postnonclassical paradigm's core

As of today, such approach is considered the newest, objective and giving the ample opportunities of studying the complicated phenomena and processes that are the object of synergetics's studying.

The modelling of complicated systems, which evolve, not only of natural and of technical, but also of liberal and economic, becomes mainstream and interdisciplinary direction of science in XXI century. That is why it is necessary to

distinctly present the principles and methods (technologies) of approaches to such systems' modelling.

Main methodological principles of synergetics are being chosen by several criteria:

1. The principles of methodology of synergetics can and mostly have to be in such dependence that they could be expressed one in terms of another. For example, the definition «gene» cannot be defined without such definition as «organism», which part it is.

2. Systems of complicated phenomena and processes can be modelled and built in various coordinate systems of various measurements. Then the problem of conversion of such systems from one coordinate system to another appears.

3. The number of principles has to be enough, but not too big. Person, who uses them, will not have an opportunity to simultaneously keep track of their maintenance in real modelling.

4. Systemacity, systematic approach to study of complicated processes, phenomena etc. This is an express condition (principle) of methodology of synergetic investigations in any field of their use as of today.

Professor Budanov, V.G. has studied the methodological principles of synergetics from a critical point of view of their really practical use in economic tasks of modernity.

Any evolutionary process is presented by range of changes in conventional conditions of order and chaos in systems that are linked by phases of transition to chaos (system's destruction) and way out of chaos (self-organization). Only one of above said stages we call a homeostasis of the system. This is a stage of stable existence of complicated system as it was called Existence by prof. Budanov [7]. It, as a rule, is the longest and has stable characteristics, the rest of stages of existence of conditions of existence of complicated systems, phenomena, processes are called the colostrual stages and crisis stages. Such classification is somewhat conventional, because even in steady state condition of system's existence, there is an element of chaos and the element of order may be found in chaos (crisis). The problem is in degree of their blend, i.e. correspondence of one small part to another. Nature, as a rule, evolves by «baby» steps, so the condition of Existence is inherent to it. The principle of this condition are: 1) homeostatic and 2) hierarchical pattern. They

characterize the phase of order, stability of system's functioning, clarity and description's simplicity. For example, in nature it is a day-night biorhythm, circle of seasons etc.

Prof. Budanov has distinguished also other five principles of colostr stage: 1) nonlinearity; 2) imbalance (instability); 3) nonclosure; 4) dynamic hierarchical pattern; 5) surveillance (observance) [7].

These principles characterize the transformation stage, system upgrade, passing successive steps by this system by old order's destruction and chaos of change of alternatives and eventually the inception of new order.

Herewith first three principles are the principles of methodology of synergetics that give birth to the colostr stage of new system of order. And the last two of them are constructive, they provide the new system with its compilation of corresponding details and constructions (characteristics-aspects) and also give investigators the opportunity to understand, observe and describe «the new order» and they give him its coexistence with the environment.

Let us have a closer look at above said principles and estimate them from a perspective of using the economic systems in synergetic methodology.

Ultrastability of the system is a phenomenon, which has to keep the system's functioning within bounds – limits that allow it to have a sense of purpose (goal). According to N. Wiener, any system has a purpose (goal) of its existence, according to which the systems' motion is being corrected [8]. Such correction is being provided by corresponding signals, characteristics, features and aspects, which hold any negative impact from outside under. For example, this is exactly how homeothermal creatures behave in nature, when for survival as a goal they maintain the stable body temperature despite any temperature variations in the environment.

The purpose (goal) – the program of system's behavior in the condition of homeostasis (ultrastability) is called an attractor in synergetics. In space of system's conditions, the attractor is a certain variety of characteristics of phenomenon, process etc. which in due course the closest system's conditions that are being drawn to.

Area (field) of attractor's attraction is called his basin. It is worthy of note, that attractors exist only in open dissipative systems, i.e. systems that dissipate the

energy, material and information and describe the final behavior (condition) of the system, which usually is simpler than transient process.

Examples of simple attractors in mechanics is a pendulum that attenuates in the lowest point of motion, or a ball at the bottom of the hole. These are the attractors of equilibrium.

Nevertheless, more complicated attractors are possible too, for example, the flight of an eagle in the air blasts, the air on the one hand moves from the ground and on the other hand – downwind. If there is no such motion, then the eagle will not be able to hover (fly). Such structures that exist only until they contain the additional flows of energy or material are called dissipative (those, which dissipate the energy) – are far from equilibrium and stability.

Living systems of existence are exactly such systems-structures – they die without a constant inflow (flushing) of energy or material through them, i.e. without the metabolism. This principle unites the ideas of cybernetics, system analysis and eventually – the synergetics.

1. One more important principle is a hierarchical pattern of the systems-structures. Main hierarchy's matter in nature is the fact that constitutive nature is the highest level in relation to lower ones that are structureless element of chaos, i.e. just a construction material.

For example, hierarchical system «society» is the highest level, which consists of the lowest – people that form this society; atoms of material consist of cores, electrons etc. These are words, phrases, texts etc. in language; these are understanding, views, ideologies etc. in world of ideas (science). These levels are hierarchical structures (ladders) that exist everywhere around us.

Always, when elements are being united in structures, they pass them the part of their characteristics, which become the characteristics of the system itself. Such system's characteristics are called «the order parameters» and their functioning nature is called the principles of submission, i.e. the variation of parameter of lowest order, by giving its characteristics to the general system, submits the generalized characteristics of the system (structure) of highest order.

Phenomenon of their specific, i.e. mutually agreed coexistence is called self-organization. It is worthy to lay emphasis on circular causality in phenomena of self-organization, interdependence and interconditionality of the behavior of elements of

two neighboring orders. For example, in the stream (flashy flow), there is a water motion (main one) that sucks the small substances (sand, leaves etc.) in and forces them to move along with the water. These substances, in their turn, gives their characteristics, in this case - pollutions, to the water.

Important characteristic of such hierarchical systems is the impossibility of full reduction (junction of its components) – reduction of characteristics of structures of more complicated orders to the language (motion, features) of structures of more simple (low) orders of system.

Specific role in systems' hierarchy is time, because the synergetic principle of submission is described and defined by H. Haken exactly in time – temporary system's hierarchy [2; 3; 4]. Such closest level in systems' investigation are micro, macro and mega levels.

Above said principles of existence need their supplement with colostrals principles, which are the driving force of evolution.

Methodological principles of synergetics that cause the «colostral» principles are nonlinearity, nonclosure and instability.

Main principle – rule of nonlinearity is a contravention of principle of superoffer in certain phenomenon (process): the result of adding the impacts on the system is not the adding these impacts' results. The causes' results cannot be added. This means that the result of adding the causes does not equal to union of causes' results. Customary borshch can be an example, it consists of n-number of ingredients and in the same time, it is not a simple union of its components, but it is the new quality of these components under the influence of heat treatment of these ingredients.

The principle of superoffer does not extend to nonlinear systems, when two factors' effect on the situation causes an effect, which has nothing to do with the results of certain effect of each factor. The development in nonlinear systems is by nonlinear laws that lead to the multivariance of ways of selection and of alternatives of exit from the state of imbalance and instability.

In nonlinear systems, the processes, phenomena etc. can be of deeply threshold nature, when there is their slip-and-stick transformation to another feature during the gradual change of external conditions. Herewith, the old structures are

being damaged, sometimes there is their full destruction and they transform to qualitatively new structures.

Unbalanced, open nonlinear systems constantly create and maintain the inhomogeneity in the environment. There some unexpected consequences can appear between the environment and the system, because there the relations of positive feedback appear, which strengthen system's equilibrium deviation.

In the processes of analysis and synthesis of nonlinear systems' components that self-organize, the resulting deduction (the answer) can be determined not by simple adding of each component, but by synergetic method – generalized synthesizing impact not only of each component separately, but also of their generalized effect in a greater degree.

Such approach in economic research is extremely necessary, but unfortunately as of today, it is not commonly used even in scientific research. In actual fact, it is the newest approach to study the economic processes, which is debatable, but extremely necessary for modern insight and generalization of processes of society's economic growth.

Today, in conditions of accelerated and instable development of the world and economic processes, the synergetics and its methodological apparatus have, in our opinion, the defining role. This is an attempt to realize, describe, solve and forecast the principles of evolution of economic systems, phenomena, processes etc., to consider the causes of economic recoveries and recessions.

Overwhelming majority of macroeconomic models that were developed and described earlier and as of today are the axioms or close to them for one economic process or the other, contain assumptions and are based on the postulate that the economy is a closed-loop system. However, it means that the processes that occur in the closed-loop systems according to second law of thermodynamics are being drawn to the equilibrium and in due course, these processes attenuate and stop. Therefore, supposing that economic processes are being described by closed-loop system, it is logical that these attenuating processes will lead to their edge state – the equilibrium.

However, the economy and its processes are the closed-loop system that falls under influence of various external and internal factors. Professor V. Nusratulin [9] has proved that the economy is instable and closed-loop by its core and nature.

The special aspects of nonlinearity of complicated systems, which, in our opinion, contain the economic ones, lie in these facts:

- nonlinearity causes indignations and agitations of the systems (fluctuations) and can strengthen or reduce them. For example, the investment in one economic process or the other, even quite insignificant increase of financial assets (financial investment volume) causes significantly bigger GDP growth;

- nonlinearity causes threshold sensitivity to the changes. For example, in economy the demand decreases when the production price raises and conversely;

- nonlinearity provides the suddenness of changes in course of processes in the system, because many various factors have a significant impact on it;

- nonlinearity's special aspect is the fact that under certain number of changes in the environment, the transformation to another feature may not happen. True and reverse thesis – qualitative change of the environment causes the appearance of new opportunities – system's components, which will lead to the change of the system itself.

The impossibility to neglect the external and internal conditions' impact on the system is a specific principle of methodology of synergetics that is according to nonclosure (openness) of the system.

All living systems as well as society are open systems, they consume the material and energy. It is the openness that allows such systems to evolve from simple to complicated one, to open a program of organism's growth from cell-embryo to highly organized grown organism. This means that hierarchical level might develop and be complicated only during the exchange of material, energy and information with other levels.

Inanimate nature, dissipation (system's transformation of energy, which is arriving to the system to thermal energy) can also lead to regulation of the structures. For example, the evolution of solar system. The synergetics has originated of the description of such systems in chemistry, physics and theory of laser. The most interesting the homeostatic structures are – the structures that are not in equilibrium with the environment, in other words such systems, which do not have maximally possible entropy.

Of course, any process, when the system transforms from one condition to another, occurs that way that it is impossible for this process to be in reversed

direction for system to experience identic intermediate states and in such event for the surrounding bodies not to experience any changes. Herewith the energy dissipation will certainly occur at the expense of emission, abrasion etc. Therefore, almost all processes (phenomena) in nature are inconvertible, part of energy is being lost in them. The concept entropy is being introduced for characterizing the energy dissipation.

Therefore, the entropy is a function of system's condition, when very insignificant changes in reversible process are equal to ratio of very small amount of heat that was added in this process to the temperature, which was there, when this heat was added.

The entropy can be constant only in closed-loop systems, i.e. such systems, where there is no energy exchange with external conditions (bodies). The word «entropy» in Greek (entropia) means the turn, transformation. This concept was introduced to determine the measure of energy dissipation during the reversible processes in thermodynamics, this is a measure of probability of any macroscopic state in physics, the measure of indeterminacy of certain research that can have various results – in information theory. Entropy as a sort of «measure of chaos degree» in systems is an extremely important characteristic in synergetic research about complicated open systems.

The majority of objects that we are interest in and which are being investigated in this work are economic structures and processes, ecologic and natural phenomena, enterprises, social phenomena etc., are the open systems, instable, imbalanced, open and are being managed by nonlinear laws.

The principle of nonclosure (openness) of the systems by hierarchical levels lays emphasis on two extremely important circumstances:

1. Processes' self-organization becomes possible, - the openness of processes, structures and systems of macro level will lead to the possibility of existence of same phenomena on micro level.

2. Analogous phenomena might also occur at the level of structures (systems) of macro level and the mega level of managerial parameters of the systems that change.

During the transformation from one system's condition to another, the system becomes in a mandatory manner open in point of imbalance (instability).

One more methodological principle in research about synergetic systems is an instability, disequilibrium, imbalance. The system is instable, if there are conditions that cause any small variations of its parameters, which change the system's condition. Such systems' characteristic was considered their disadvantage for a long time and bifurcation points – points of system's transformation to another condition were considered the points that manage the systems.

The significance of bifurcation points also lies in the fact that influence on the system's behavior, its further development and condition can be made only in them. It is also worthy of consideration that such circumstances as unpredictability of bifurcation points' impact on the behavior and hereafter on the development of systems' condition.

R. Thom [10] and Volodimir Arnold's [11] catastrophe theory is sometimes called the bifurcation theory, because it is able to forecast the process, which can occur in the future.

There are two cross-functional pre-crisis symptoms of system's behavior, i.e. two «premonitory symptoms» of catastrophes. First one is called «the lull before the storm» or the pre-crisis slowdown characteristic rhythms of the system. The second one is an increase of noise fluctuations in the system near the bifurcation point, i.e. increase of chaotic variation of system's characteristics from their average values.

Conclusions and perspectives of further research. Synergetics can and even has to study such systems by constructive principles. Constructive principles are the principles that give the investigator the opportunities to unite, coordinate and accumulate the principles of synergetics.

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Features of formation and development of the human capital of employees of industry in Russia

Abstract. The study of the processes of accumulation, development and transformation of human capital at the macro and mesoeconomic levels do not lose their relevance over the past decades. Based on the empirical material of the Russian Monitoring of the Economic Situation and Health of Population, a number of hypotheses have been confirmed about the effect of accumulation of individual elements of human capital on the earnings of industrial workers in 29 regions of Russia. The positive influence of the accumulated education on the increase of wages in the Russian conditions was confirmed, the standard hypothesis about the obsolescence of human capital with age, the influence of the formation of special competencies (knowledge of the language, computer skills) on changes in earnings throughout life was revealed.

Keywords: human capital, wages, Mintser's equation, regions of Russia, education, special competencies.

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Особенности формирования и развития человеческого капитала работников промышленности в России

Аннотация. Исследование процессов накопления, развития и трансформации человеческого капитала на макро- и мезоэкономическом уровнях не теряют своей актуальности в течение последних десятилетий. На основе эмпирического материала Российского мониторинга экономического положения и здоровья населения подтвержден ряд гипотез о влиянии накопления отдельных элементов человеческого капитала на заработки работников промышленности в 29 регионах России. Подтверждено положительное влияние накопленного образования на повышение оплаты труда в российских условиях, стандартная гипотеза об устаревании человеческого капитала с возрастом, выявлено влияние формирования специальных компетенций (знание языка, владение компьютером) на изменение заработков в течение всей жизни.

Ключевые слова: человеческий капитал, заработная плата, уравнение Минцера, регионы России, образование, специальные компетенции.

Введение. Изучение процессов накопления и использования человеческого капитала, измерения и оценки эффективности инвестиций в человеческий капитал актуализируется в условиях повышения роли интеллектуальных работников в экономическом развитии. В настоящее время термин человеческий капитал используется повсеместно – как в социальных, так и в некоторых гуманитарных исследованиях, однако его экономическое значение на протяжении уже более, чем 60 лет остается неизменным и не подвергается существенной трансформации, в том числе и в работах российских исследователей. Под человеческим капиталом понимают совокупность знаний, умений и навыков, которые приносят их обладателям доход в течение определенного периода, то есть могут быть эффективно применены на рынке труда [1]. Теоретико-методологические взгляды на природу человеческого капитала в трудах представителей неоклассической экономики труда предполагают его временное измерение: эффективность инвестиций в человеческий капитал определяется разницей в заработках у работников с различным уровнями накопленного человеческого капитала, выраженного в годах обучения или производственного опыта [2, 3]. Определение влияния параметров накопления человеческого капитала на доходы работников остается перспективным направлением экономического анализа, поскольку позволяет сформировать глубокое представление

об эффективности процессов воспроизводства человеческого капитала и о степени его использования на макроэкономическом уровне.

Традиционные качественные характеристики человеческого капитала, такие как уровень образования, производственного опыта и квалификации, распределение рабочей силы по видам занятий, его роль в обеспечении инновационной деятельности и некоторые общие показатели динамики инвестирования в рабочую силу используются в большинстве современных исследований. Определение эффективности применения человеческого капитала всегда привязано к выявлению изученных качественных показателей на его стоимость (при общепринятом подходе определяется через уровень доходов населения). Как правило, денежная оценка, даже проводимая по признанной методологии, не дает достаточного представления о влиянии отдельных количественных и качественных факторов на показатель отдачи от запасов человеческого капитала, поэтому любую денежную оценку человеческого капитала следует дополнять исследованием зависимостей результирующего показателя от отдельных факторов. Именно с этой целью для изучения процессов формирования и развития человеческого капитала нами используется традиционная методология эконометрического моделирования на основе регрессионных уравнений.

Методология исследования. Параметрический анализ зависимости оплаты труда от уровня образования и анализ уровня отдачи от образования для различных специальностей и квалификаций выполняется с применением регрессионного анализа. Традиционным инструментом для выявления уровня отдачи от образования является уравнение, предложенное Дж. Минцером [4]. Уравнение представляет собой функцию логарифма заработной платы в зависимости от нескольких параметров; в состав стандартного уравнения входят такие переменные, как число накопленных лет образования и число лет производственного опыта:

$$\ln W = \beta_0 + \beta_1 s + \beta_2 x + \beta_3 x^2 + u, \quad (1)$$

где W – заработная плата, денежные единицы;

$\beta_0; \beta_1; \beta_2; \beta_3$ – коэффициенты уравнения регрессии;

s – число накопленных лет образования, лет;

x – годы производственного опыта (фактический оборот человеческого капитала на рынке труда), лет;

u – величина ошибки, учитывающая не включенные в модель факторы, например, такие как врожденные способности, которые влияют на индивидуальную производительность.

Отметим, что в различные модификации уравнения в зависимости от целей анализа могут включаться показатели уровня безработицы (для анализа кривой Филипса), занятости населения и т.п. Р.Дж. Виллис отмечает, что коэффициент уравнения регрессии β_1 в уравнении 1 или коэффициент образования отражает норму доходности от образования, показывая увеличение отдачи от каждого дополнительного года полученного образования [5, с. 526]. Данное уравнение лучше всего аппроксимирует реальную функцию заработков, отражающую эффективность инвестиций в человеческий капитал, именно поэтому дано смешанное, квадратичное и линейное представление показателя накопленного числа лет производственного опыта. Естественно, что важнейшей проблемой при определении параметров уравнения Минцера является сбор релевантных статистических данных, при этом для достоверности должен сохраняться значимый объем выборки. С точки зрения экономики труда, функция, аппроксимирующая величину заработков в зависимости от уровня образования и уровня производственного опыта может быть представлена как частный случай гедонистической функции Розена, отражая тем самым равновесие спроса и предложения на работников с определенным уровнем образования и опыта. В динамике уровень спроса на определенное качество человеческого капитала может быть отражен в темпах прироста заработной платы и соотношения уровней заработной платы в различные периоды.

Применение стандартной модели Минцера для анализа позволяет получить весьма ограниченные результаты, поэтому большинство современных исследователей предлагают модифицированные формы рассмотренного уравнения (1), включая в его состав дополнительные количественные и качественные переменные [6]. Включение в состав уравнения качественных переменных позволяет увеличить коэффициент детерминации при соблюдении удовлетворительных значений статистических критериев. Для углубленного анализа нами были предложена линейная модель с учетом количественных и качественных переменных:

$$\ln W = \beta_0 + \beta_1 S + \beta_2 X + \beta_3 M + \xi_1 G_e + \xi_2 B_o + \xi_3 P_r + \sum_{i=1}^n \xi_{4i} R_{ei} + \sum_{j=1}^k \xi_{5j} I_{nj}, \quad (2)$$

где $\ln W$ – натуральный логарифм заработной платы;

β, ξ – коэффициенты уравнения регрессии количественных и качественных переменных соответственно;

S – рассчитанное эмпирическим путем число накопленных лет формального образования;

X – число лет производственного опыта, рассчитанное теоретически по способу Минцера, с учетом того, что средний возраст начала получения первичного образования равен 6,5 лет;

M – число лет специального производственного опыта как количество непрерывного трудового стажа по месту работы, актуальному на момент исследования, рассчитанное эмпирически;

G_e – качественная переменная, учитывающая пол (мужской = 1);

B_o – качественная переменная, учитывающая принадлежность к категории руководителей (имеет подчиненных более 1 = 1);

P_r – качественная переменная, учитывающая уровень собственности предприятия (государственная собственность = 1);

R_e – качественная переменная, отражающая регион занятости;

n – количество регионов, для которых проведено исследование ($n=29$);

I_n – качественная переменная, учитывающая отрасль промышленности;

k – количество обследованных отраслей промышленности ($k=6$).

Изучение динамики заработной платы по модели проводилось в период с 2003 по 2013 годы, по второй модели – с 2006 по 2013 в связи с отсутствием некоторых ключевых переменных в эмпирической базе исследования.

На основе кросс-секционных данных за период с 2003 по 2013 год нами были построены уравнения регрессии на основе двух исходных моделей. Для расчетов использовались статистические данные базы Российского мониторинга экономического положения и здоровья населения (РМЭЗ).

Результаты регрессионного анализа, проведенного для исходной выборки, приведен в таблице 1.

Таблица 1. Результаты регрессионного анализа для предложенной модели 2¹

Переменные	2013		2012		2011	
	Коэф.		Коэф.		Коэф.	
	β , ξ	t-стат.	β , ξ	t-стат.	β , ξ	t-стат.
(Константа)	8,481	157,0	8,534	178,6	8,433	170,6
Накопленное число лет образования	,073*	22,8	,064*	21,2	,063*	19,9
Производственный опыт	,001	1,3	,002	3,4	,002	4,0
Специальный производственный опыт	,008*	9,5	,006*	7,2	,005*	5,9
Пол мужской	,275*	20,7	,315*	24,2	,302*	24,0
Начальники	,263*	16,2	,297*	19,2	,280*	18,2
Государственная собственность	-,078*	-5,7	-,085*	-6,2	-,118*	-8,9
Пензенская область	-,359*	-6,8	-,451*	-8,5	-,458*	-9,1
Алтайский край	-,275	-7,2	-,255*	-6,5	-,458*	-8,6
Калужская область	-,075	-1,4	-,079	-1,6	-,225**	-4,9
Волгоградская область	-,279*	-5,9	-,223	-4,7	-,264*	-5,8
Кабардино-Балкария	-,254**	-4,0	-,239	-3,2	-,425*	-6,1
Тамбовская область	-,131	-2,9	-,219	-4,9	-,253*	-5,7
Амурская область	-,073	-1,6	-,204	-4,3	-,093	-2,0
Ставропольский край	-,159	-3,3	-,182	-3,9	-,232**	-4,8
Чувашия республика	-,200**	-4,5	-,215	-4,8	-,242*	-5,3
Удмуртия республика	-,128	-3,1	-,145	-3,5	-,137**	-3,4
Саратовская область	-,080	-2,2	-,094	-2,7	-,150**	-4,3
Оренбургская область	-,002	0,0	-,086	-2,0	-,081	-1,9
Курганская область	,062	1,3	,046	,9	,037	,8
Тверская область	,017	0,4	-,041	-,9	-,017	-,4
Пермский край	-,001	0,0	-,070	-1,7	,009	,2
Краснодарский край	,203**	4,2	,152	3,3	,156**	3,6
Липецкая область	-,031	-0,7	-,098	-2,6	-,003	-,1

¹ Примечание к таблице 2: * – значим на 1% уровне, ** – значим на 5% уровне.

Челябинская область	,075	2,1	,012	,3	,017	,5
Смоленская область	,134	2,6	,095	1,7	-,025	-,5
Татарстан республика	,127**	3,1	,116	2,8	,126**	3,0
Тульская область	,099	2,2	,206	4,2	,128	2,7
Новосибирская область	,206**	4,3	,080	1,6	,170**	3,5
Красноярский край	,365*	8,3	,209	4,6	,295*	6,6
Нижегородская область	,197**	4,5	,158	3,5	,130	2,9
Томская область	,204**	4,9	,180	4,3	,144	3,5
Ленинградская область	,452*	12,5	,405*	11,6	,404*	12,1
Приморский край	,491*	10,0	,371*	7,4	,418*	8,0
Коми республика	,541*	15,2	,524*	15,0	,509*	15,1
Московская область	,620*	22,1	,615*	22,5	,618*	22,6
Легкая промышленность	,024	0,9	,015	,6	,031	1,2
Гражданское машиностроение	-,002	-0,1	,005	,1	,050	1,4
Военно-промышленный комплекс	,113	2,5	,073	1,7	,021	,5
Нефтегазовая промышленность	,302*	8,1	,381*	9,9	,362*	9,7
Тяжелая промышленность	,137**	4,0	,139**	4,1	,134**	4,1
Энергетическая промышленность	,107	2,6	,152	3,6	,117	2,8
R^2	0,354		0,308		0,311	
Скорректированный R^2	0,350		0,306		0,306	
F -статистика	98,780		59,851		62,521	
$F_{кр}$ ($p=0,01$)	1,59		1,59		1,59	
Статистика Дурбина-Уотсона	1,852		1,785		1,998	
Число наблюдений	7626		7845		8852	

Как видно из приведенного анализа, при включении большего числа факторов в нелинейную модель происходит повышение коэффициента детерминации, однако, вновь вводимые переменные не значимы в большинстве случаев, что отражается на показателе F -статистики. В среднем в рассматриваемом периоде по промышленным отраслям отдача от образования

находилась на уровне 6-8% на каждый дополнительный год образования, при этом отдача от накопленного производственного опыта незначительна, а в некоторых случаях отрицательна. Полученные показатели уровня отдачи от образования несколько отличаются (на 2-3%) от результатов, рассмотренных в исследованиях [6,7,8]. Возможно, что расхождения возникают вследствие несопоставимости результатов при применении разнородных моделей. Очевидно, что с увеличением количества переменных и введения нелинейных независимых параметров норма отдачи растет, приближаясь к значению 8%.

Заключение. По результатам проведенного регрессионного анализа можно сделать выводы о некоторых особенностях факторов, вносящих свой вклад в рост заработных плат. Формально уровень запасов человеческого капитала остается весьма высоким. Однако гендерный параметр, отраслевая принадлежность предприятий и регион, в котором осуществляется трудовая деятельность, как правило, играют ключевую роль в распределении заработков в условиях российского рынка труда. Во всех отраслях промышленности человеческий капитал используется с низкой эффективностью, при общем высоком уровне формального образования и производственного опыта индивидуальная отдача от каждого из этих показателей остается довольно низкой. Отсюда следует, что работники российских предприятий избыточно инвестируют в собственный человеческий капитал, который работодатели не способны полноценно вовлечь в экономический оборот. Показатели специального человеческого капитала остаются также сравнительно низкими и говорят о том, что занятое население в России в 1,5-2 раза чаще, чем в развитых странах меняет место работы в течение периода трудовой деятельности.

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The influence of the organizational structure of the enterprise on the efficiency of the functioning of intellectual capital and staff development

Abstract: The possibility of using common organizational structures was investigated by adapting them to the management of intellectual capital of the enterprise. Composition methods of psychological influence on the development of personnel considered. The impact of organizational structure of enterprise on the efficiency of functioning intellectual capital in the current economic situation is defined.

Keywords: intellectual capital of enterprise, divisions of intellectual activity, individual human capital.

1. Introduction

With the development of the "new" economy, when knowledge becomes the main resource for creating competitive advantages of the enterprise, the issues of managing intellectual capital are primary importance for ensuring the effective operation of the enterprise. Each of the forms of intellectual capital is generated by human knowledge and their totality determines the hidden sources of values that provide for enterprise a high market value. The concept of effective formation and using of intellectual capital began to be actively introduced in Ukrainian companies, and since this category began to be studied relatively recently, still not enough the influence of the organizational structure of the enterprise on the efficiency of the functioning of intellectual capital and staff development, as well as its impact on the cost Companies and management methods. Because of insufficient coverage of the issues of building an institute of intellectual capital in Ukraine and the lack of practical

skills, most domestic enterprises can not adequately assess their intellectual capital and, accordingly, manage it, and this weakens their competitive positions both on the domestic and foreign markets.

2. The object of research and its technological audit

It should be noted that currently domestic and foreign enterprises carried out the valuation impact of organizational structure on the efficiency of intellectual capital. It is carried out by accountants enterprises to accounting and intellectual property valuers during the purchase and sale of patents, concluding license agreements, market transactions related to the purchase and sale, mergers and divisions of the company. This assessment has local and specialized nature and clearly insufficient for the management of intellectual capital in the company, its methods and procedures are an integral part of the author's proposed methodology of assessment of the intellectual capital and staff development.

The research of the impacts problems of organizational structure on the efficiency of the intellectual capital of the company are made by K. Sveiby, S.Milio, R.Lattanzi, F. Casadio, who proposed definition of organizational structure and intellectual activity of the company [7, 9]. The research that focus on the wide range the problems of intellectual capital are made by primarily the works of scientists, as M. Donchenko, Alexander Larin, Alexander Sobko [2, 5, 8].

3. The aim and objectives of research

The aim of the research was elected analysis of influence of organizational structure on the efficiency of intellectual capital in the current economic situation.

For achievement the goal there are the next scientific tasks:

- 1) to investigate the possibility of using common organizational structures which adapted to the management of intellectual capital of the company;
- 2) to consider the composition of the methods of psychological influence on the staff development.

4. Literature review

According to management accounting based on the assessment of the current situation can be analyzed volume, structure, state of intellectual capital of the company and identifying staff development reserves, determining the adequacy of funding for the restoration of intellectual capital, the dynamics of their increase and efficiency.

Ukrainian scientists who are dealing with this problem suggest methods for evaluation and financial analysis of intangible assets. However, in our opinion, the composition of indicators for evaluation is limited and requires expansion.

5. Materials and methods of research

For solving the tasks we used the following methods:

- Dialectical method that was caused by the need to analyze and summarize certain aspects of scientific knowledge that examines the evolution of methods of influence on the nature of the intellectual capital of the company;
- Structurally-functional analysis of the principle of systematic study of economic phenomena and processes dismembered structural integrity;
- System-analytical method, according to which way the research operations and intellectual capital of the company today proposed modern methods by which the optimal functioning of the enterprise will be carried out.

6. Research results

Each level of operations consists of two stages - providing with resources manufacturing the product. Correspondingly, for material product resources are material - raw materials and components. They are turned into semi-finished products (incomplete production) at the first stage. For non-material products these are information, data collected and, according to the context of the tasks, transformed into information and then into knowledge.

Organizational structure is understood as a scheme of hierarchical structured set of company departments and their administrative relationship of subordination that ensure the integrity of the enterprise as a social and economic specialized system of various activities [1].

The production organizational structure of intellectual activity is formed by departments and employees, specialized in accordance with the blocks of functional activity, distributed geographically (spatially) that have in-process relationships and use certain resources in their work.

The production structure cannot exist in isolation; it is integrated with management structure into overall organizational structure.

The management structure is an ordered set of management bodies (posts, departments and services) that are interconnected and subordinate through unified communication channels.

Bodies of intellectual capital management of an enterprise include:

1. Directors of a company who make strategic management decisions regarding intellectual activity.
2. Managers as bearers of knowledge and line managers of production and management departments of intellectual activity of the enterprise carry out the tasks of tactical and operational level.
3. Directors of departments engaged in financial and investment planning, management accounting of intellectual capital. With a minimum amount of work there is only a post of an economist, who at the same time engaged in the transformation of created knowledge (intellectual products) into intellectual capital.
4. Directors of functional departments that carry out the tasks of intellectual functional blocks of the company.

Consider the possibility of typical organizational structures usage adapting them to the system of intellectual capital management of an enterprise:

1. *Linear-functional structure*. It is characterized by advanced organizational bureaucracy, centralization of management, professional managers and performers due to their specialization and personal responsibility for the results. Within the linear-functional structure a self-sufficient stable system of intellectual capital management can be created using the approach of internal integration.

At the same time linear-functional structure does not provide sufficient flexibility and adaptability if the environment is changeable. Therefore, its use is restricted by the following external and internal conditions: relative stability, predictability of external macro environment; industry life cycle during the phase of maturity; stable markets for products selling; director is a leader who can inspire staff solve problems creatively, set up a creative corporate culture [3].

Intellectual capital management in this case is aimed at continuous improvement of enterprises activity, periodic revision of knowledge in order to prevent them from obsolescence, product modification, modernization of production equipment and technology, the accumulation of experience, that is, practical knowledge. Strategic management of intellectual capital provides continuous achievement of economic goals to reduce costs, revenue increase, and rational use of all resources.

Flexibility and adaptability of linear-functional structure to some extent can be increased by the introduction of headquarters, which will prepare alternative solutions, develop recommendations for linear managers who coordinate their activities.

2. *Divisional structure.* It is characterized by enterprise division into semi-autonomous production departments that specialize in one of three characteristics: type of goods (services) – product structure; groups of customers - consumer structure; geographic regions - regional structure.

This approach can be used in the process of building organizational structure in the system of intellectual capital management.

Variant 1. If the organizational structure of the company is based on linear-functional type, then organizational structure of intellectual activity can be constructed on divisional type. Thus, several scientific and research departments are established using a trade principle. Each department specializes in a particular type of goods. It is similar when using the other two principles. The condition for the creation of this organizational structure is also creation of marketing services that will ensure better coordination of joint actions.

Variant 2. If the organizational structure of a company is based on divisional type, then departments of intellectual activity are created within each division. They have the same specialization as the division.

In both cases it is advisable for departments that carry out tasks of functional blocks "cognitive and creative activity" and "economic and legal activity" to specialize via product, consumer and regional principles. Departments that perform tasks of blocks "educational activity" and "information ensuring" are general to all divisions, providing them with intellectual and information resources.

Building organizational structure based on divisional type creates opportunities to improve the efficiency of intellectual activity of the enterprise by specialization, but there is a duplication of departments. However, this disadvantage can be turned into a strong side of intellectual activity of a company, if we use the approach of internal organizational benchmarking, that is, compare technologies of intellectual activity, used by different departments, and provide search for "best practices" with the assessment and promotion of best departments and employees [4].

Variant 3. It takes into account the phase of the life cycle of enterprise products, technology, and industry market. So if there are, for example, two divisions of product specialization in the company, then one of them can produce goods which are in a phase of maturity (traditional products), and the second division – products that are in a phase of formation (innovative products). The second division should involve organizational structure of intellectual activity with the relevant production departments and management superstructure. This organizational structure will pass to the first division after some time when phases changing. It would eliminate the duplication of intellectual activity departments that was typical for the previous variants. This variant of organizational structure building is actually a project but implemented within the divisional structure.

Variant 4. Intellectual activity is organized in a separate division that is an independent economic unit, performs work on applications of divisions that produce material products. This variant is similar to the network's organizational structure.

3. *Project structure*. This structure is created temporarily to solve a particular problem, the following variants are possible:

Variant 1. If there are no departments engaged in intellectual activity, then experts from consulting firms are invited to implement the planned project (external outsourcing) and joint project teams are created. When using a cooperative approach to organise intellectual activities such cooperation becomes permanent.

Variant 2. If a complete system of intellectual capital management, which consists of the production and managerial subsystems is created in the company within the linear-functional structure, then project teams led by managers as bearers of knowledge are established to implement strategic plans. Thus, the transition to the structure of the matrix type is conducted.

4. *Matrix structure* is the main variant used by organizational structure of management of company intellectual capital.

It provides, according to the model of cycles of intellectual activity, the development of four hierarchical levels of knowledge management, combines the advantages of linear-functional and project structures. Functional departments that perform tasks of basic operational blocks are separated in the organizational structure - "educational activity", "cognitive and creative activity", "information ensuring", "economic and legal activity" [6]. Their employees are subordinated in a

linear way to managers as knowledge bearers. Intellectual activity is organized as constant and as the project (program-purposed). The project team includes scientists and experts, directly subordinated to the directors of functional departments and research laboratories in the structure where they are. This organizational structure corresponds to the approach of intellectual activity integration within the enterprise. It provides the intellectual independence from the external environment, continuity, flexibility and adaptability of intellectual activity.

5. *Network structure* meets the requirements of a modern economy, characterized by: globalization; communications, expanded to the size of the world space; easy movement of capital and material production; continuous process of merger, takeover, and division of companies. Its peculiarities are: the use of market contractual relations; legal and economic independence of structural units, their economic motivation.

Network structure, made in different ways, provides the implementation of approaches of integration and cooperation of enterprise intellectual activity.

Variant 1. An intra-oriented network structure includes legally independent enterprises controlled by a central company, in other words, a holding company is created. Manufacturing intellectual product is also a legally independent company that interacts with other enterprises of internal network on a contractual basis, receiving orders and producing required intellectual products that replenish the intellectual capital of the business customer.

Variant 2. An intra-oriented network structure with independent companies is created. These companies have technological relationships in a single innovation and intellectual lag; have a common centre of management. When using the system of management based on computer distributed means of communication, virtual network associations are created. They are recommended for production and sale of maximum science-intensive products with a focus on targeted market segments. Virtual organizations can be created purposefully for the implementation of intellectual activity and production of intellectual products.

Cooperation unites participants of the capital to create the material base of joint activities. Using real options permits establishment of a mutually beneficial agreement without transfer of funds, but by processing options to certain types of resources, work, services, and results of performance.

The real option has the properties: rights without duties, no specific deadline for its validity, the absence of fixing the object of operations and predetermined price of performance. This provides the flexibility, adaptability and minimization joint activities costs. Particularly well this tool can work in exchange of some property rights to others without their transfer into cash and therefore without the risk of tax liabilities or illiquid assets. For example, research laboratory needs some equipment, which there is in a manufacturing company; the laboratory receives it, transferring the company not cash but option with the right to order the researches equal to the cost of equipment. Accordingly, the company, having the option, uses it to pay for specific studies when there is a need for them.

However, organizational and economic motivation of intellectual activity requires the creation of intracompany legislation which is based on standards, methodological guidelines, rules and regulations that define the legal and financial relationships between the participants of intellectual activity within the system of intellectual capital management. The proposed system allows to determine, stimulate and regulate the organizational behaviour of employees, ensuring transparency and clarity of their formal and informal relationships.

The company adopted the paradigm of management which is based on the creation and use of intellectual capital has new requirements.

7. SWOT-analysis of research results

Strengths – Two main processes should be selected in the activity of the enterprise: current operation, which aims to provide regular, stable activity of the company by sharing resources between the external and internal environment under constant environmental conditions; radical development that consists in a dynamic transition to new conditions of operation due to altered environmental conditions, which thus breaks stability and rhythm of current operation.

Weaknesses – The processes of current operation and radical development are in dialectical contradiction with each other, having different characteristics. So, we need the third basic process, linking the operation and development - a process of continuous improvement.

Opportunities – The use of the system of intellectual capital management allows to implement the development as a continuous improvement. Thus, in contrast to quality management and innovation management the object of management is the

whole organizational system, not just the product and its manufacturing technology that gives a much better result.

Threats – The system of intellectual capital management allows the company to carry out, if necessary, a radical development, overcoming strategic discrepancy between the current and planned state of the enterprise on the basis of the implementation of organizational holomorphosis.

Algorithm for management of improvement and development of the enterprise as a system includes the basic stages:

1. determination of trends in development of the main components of the internal and external environment on the basis of analysis of the life cycles of ontogeny and phylogeny of an enterprise building ontogeny and phylogeny curves, matrix "evolution-inheritance" of systems;

2. setting the system of goals, in which, in the event of company managers to install radical development, in the top graph of goals mission is not established but vision, that is, the image of the company, featuring significant novelty;

3. determination of discrepancies between current and target state, their level and focus on a certain type of intellectual capital;

4. the development of measures to eliminate disparities by changing (metamorphosis) the objects - types of intellectual capital and intellectual activity processes;

5. the process of taking the developed measures;

6. control and adjustment of the results.

8. Conclusions

Based on the above-mentioned, we can formulate the following conclusions:

- if the company needs an optimal current operation then "biological" staff development is sufficient;

- if the company needs development based on generative metamorphoses, then "hard worldview development" of staff is sufficient;

- if the company needs continuous improvement, then "biological" and "mild worldview development" of staff is sufficient.

The methods of "worldview development" include:

1. The methods of teaching:

- active group methods based on the inclusion of students in the educational process using games and competitive component - role-playing and simulation business games;

- multimedia teaching methods using computer technologies with games and competitions that provide activation of different kinds of information perception;

- coaching - complex individual training which combines professional and socio-psychological training;

- practical training ("action learning") in solving business problems - learning is combined with research, design and organizational activities;

- rotation of staff which allows them to look at their work in a new way, move to a more abstract level of thinking - think not private, but overall, that is, in accordance with the model, pass to the category "wisdom";

- vertical internship in the same enterprise allowing you to change the subordinate's "point of view" to executive's one with the transition to the "wisdom";

- internship in another enterprise, participating in conferences, seminars, trade shows, it provides the opportunity to explore economic outlook of another company with the opportunity to transfer it.

2. The methods of psychological influence - group sessions of suggestion; traditional hypnosis; Ericksonian hypnosis; neuro-linguistic programming (NLP); "Philosophical" conversation; self-mood according to the method by L. Edvinsson; isolation from the familiar environment by means of human movement in unusual and extreme conditions; self-assessment (reflection) based on the socio-psychological testing (Edvinsson, Malone, 1997). These methods are "moving" from its traditional sphere (medicine) in the field of managing personnel of a company. It should be noted that the use of psychological methods allows the company to gain high-order competitive advantages which are based on the formation of highly skilled personnel, but significant social, psychological and biological risks of mental disorder of people, loss of health are possible.

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The main directions of the investment policy of Azerbaijan and directions for its improvement

Abstract: In this article has been considered and analyzed the main directions of the investment policy of the Republic of Azerbaijan and characterized the investment activity of the country in recent years. The analysis shows that in Azerbaijan was formed a fairly favorable climate for attracting investment in the economy in recent years. The main directions of improving the investment policy should be acceleration of restructuring and privatization processes, acceleration of the transition to the application of international standards in industrial enterprises, should be based on modern technology, the development of free enterprise environment, acceleration of measures related to the promotion of investment.

Keywords: investments, investment policy, oil and non-oil sector.

In the mechanism of economic management of investment is an extremely important function of the regulator of the rate of development, as a multiplier. Investment activities are subordinated to a long-term development goals, therefore, it must be implemented in accordance with the developed investment policy. Investment policy is an integral part of economic policy conducted by the state and enterprises in the form of establishing the structure and the scale of investment, determining the directions of their use. The investment policy determines the most priority directions of capital investments, on which depends the increasing of the efficiency of the economy, provision of the highest production growth and national income.

State investment policy is directed on the formation of an enabling environment which promoting the involvement and the increasing of the efficiency of investment resources in the development of the economy and social sphere. In the process of developing the investment policy it is necessary to take into account the

experience of the economically developed countries of the world, but it is obligatory to adapt of foreign provisions to national conditions.

On features of the state investment policy formation of the Azerbaijan influenced such factors as the traditionally established strong role of the state in managing the economy, functioning of a market economy, which is designed to ensure the greatest return on the actions of the subjects of investment activity, features of the transition period, also as a political, economic, global financial crisis, the lack of a clear and correct development of the real sector of the economy.

The investment process has began from 20 September 1994, with the signing of the "Contract of the Century", which imply a partnership with foreign companies on development of "Azeri-Chirag-Guneshli". Since then, have been signed the new oil contracts, for execution of contracting in Azerbaijan, which attracted more than 400 companies. It was implemented the price liberalization, formed a monetary and tax and customs legal frameworks, has been created a favorable environment for business development and attracting foreign investment.

The political and economic stability is very important for the economy of the country, for investment and business climate. Unlike other countries, reforms implemented in Azerbaijan are systematic, continuity and regularity, also the investment attractiveness of the country is increasing, economy adapts to world realities and the improves business climate. Investment activity in Azerbaijan is regulated with "The Law on Investment Activities" (adopted on 13.01.1995) and the "Law on the Protection of Foreign Investments" (15.01.1992). These laws define the inviolability of property, protect the rights and interests of investors, create the same working conditions for local and foreign entrepreneurs, unimpeded using of the profits received, thereby creating a legal framework.

Along with this the government signed bilateral agreements with a number of countries on the abolition of double taxation, promotion and bilateral protection of investments. Conducted measures increased the interest of foreign investors, international financial institutions and economic organizations to Azerbaijan.

For accelerated development of entrepreneurship and the increasing the rationality of the business environment in the country and simplification of procedures the President of the Republic of Azerbaijan signed an order dated October 25, 2007 "On measures to ensure the organization of activities of business entities on the

principle of "Single Window". According to the principle of "single window" the Ministry of Taxes of the Republic of Azerbaijan was appointed a single state registration body from 1 January 2008. Practice shows that after the introduction of this system, the number of procedures for starting business activities decreased from 15 to 1, and the time spent was reduced from 30 days to 3 days. To exchange the documentation with tax authorities and banks the entrepreneurs undertake through the newly created Internet Tax Administration.

In order to increase the country's export potential through the development of local production and the encouragement of attracting investments had been created the Azerbaijan Export and Investment Promotion Foundation, which carries out very important activities in building a dialogue between the public and private sectors, and also helps foreign investors in the implementation of their investment projects. For centralized regulation in 2006 was founded the state policy which carried out in the field of support for the development of entrepreneurship by the Azerbaijan Investment Company. The purpose of investment activity, which is mainly participation in shares of the authorized capital functioning in the non-oil sector of the country's economy are the joint-stock companies and other commercial organizations, including the implementation of long-term investment deposits by purchase of shares.

It should be noted that the process of Azerbaijan's integration into the world economy has taken on an intense character in recent years, in particular, in 1995-2014 more than US \$ 199 billion was invested in the country's economy, 33.9% of which was invested in the oil sector, at the same time, until 2009, foreign investments in the Azerbaijani economy constituted an advantage and trend growth. However, in the subsequent period the volume of domestic investment has risen sharply, in particular, the volume of domestic investments in 2009 was 7.5 billion, and in 2014, 16.2 billion US dollars, and the volume of foreign investment increased from 5, 5 to 11.7 billion US dollars.

Of the targeted investments in the country's economy, 102.4 billion US dollars or 48.9% accounted for foreign investment. At the same time, if in 1995-2001 the volume of foreign investments amounted to only 6.9 billion dollars or 6.7% and in 2002-2014 this amount increased by 12.9 times and amounted to 88.6 billion US dollars. Of all foreign investments directed to the economy of the country in 1995-

2014 years 51,1 billion dollars or 53,5% is directed to the development of the oil sector, and 4,4 billion US dollars for the development of the non-oil sector.

During 1995-2001, foreign investments dominated in the whole investment, but after 2008 the situation changed. For example, the share of foreign investment directed to the economy of the country amounted to 79.9% of the total investment in 2002, 68.7% in 2005, and 55.3% in 2007. Beginning in 2008, foreign investment declined from 42.2% (2008) to 41.9% (2014).

Along with this, if before 2008 foreign investments directed to the oil sector exceeded the volume of investments directed to the non-oil sector of the economy, then the next years the situation has changed. Thus, in the non-oil sector was directed in 2005 - 22.3%, 2007 - 40.0% of foreign investments, in 2008 - 51.1%, in 2010 - 64.2%, in 2013 - 53.2%. Thus, starting from 2008, most of the foreign investments are directed to the non-oil sector. This is due to the fact, that the necessary infrastructure for the implementation of the "Contract of the Century" and the construction of the Baku-Tbilisi-Ceyhan oil pipeline had been completed before 2005. In this regard, there was a decline in investment in the oil sector, in the following years.

It should be noted that, according to the State Statistics Committee of Azerbaijan, the foreign investments directed to the economy of Azerbaijan are treated as a financial loans, the investments in the oil industry, the joint ventures and enterprises with foreign investment, the oil bonuses and other investments.

Studies show that over the years 1995-2014 in Azerbaijan's economy towards a more 95.5 billion. US dollars. The financial loans mainly came from financial institutions, members of the World Bank Group, the European Bank for Reconstruction and Development, the International Monetary Fund, the Islamic Development Bank and other international financial institutions. For the analyzed period, financial loans amounted to 24008.6 billion US dollars, those, 25,1% of foreign investments.

One of the types of foreign investment is foreign direct investment. They can be in different forms: payment of membership fees by the investor to the authorized capital of enterprises, issuance of corporate loans, equipping part of the company's shares, equipping it with technology and technology, etc. Investments in the oil

industry, as well as, joint ventures and enterprises with foreign capital, can be considered direct investment.

Direct investments for 1995-2014 were directed to the oil industry 52.5 billion dollars, and joint ventures and enterprises with foreign capital of 8.7 billion US dollars.

Thus, the bulk of foreign investment invested in the economy of Azerbaijan is financial loans and direct investment. The main investors investing in Azerbaijan are Turkey, Great Britain, the USA, Japan, the Netherlands.

It should be noted that, since 2006, after putting into operation the international oil pipeline "Baku-Tbilisi-Ceyhan" and the gas pipeline "Baku-Arzurum" the gross domestic product increased for 5.7 times.

Over the past 15 years, the amount of investment invested in the Azerbaijani economy exceeds \$ 180 billion. Most of this amount is internal investment. Today Azerbaijan is a country investing large investments far beyond its borders. At the same time, Azerbaijan becomes a lender from the borrower. Thus, the conducted analysis shows that the economic situation in Azerbaijan is favorable, the ground for attracting financial resources to the economy of the country.

However, in order to reduce the country's dependence on the oil and gas industry, it is necessary to increase the share of foreign investment in the non-oil sector of the economy. Attracting investment in the development of the agricultural sector, the construction industry and modern industry are justified from the point of view of solving the problems of social development, primarily the problems of employment and poverty. Therefore, based primarily on considerations of sustainable development of society as a whole, the state has invested many billions of dollars to implement two state programs of social and economic development of the regions. These same factors are taken into account today in the formation of technology parks (Sumgait, Balakhany), industrial districts (Neftchala, Massaly), transport infrastructure.

In a market economy the resource support for the modernization of industries, the economy is impossible without attracting private capital. Consequently, one of the objectives of the state's investment policy is the formation of a system of measures, stimulating entrepreneurs to actively participate in the investment of all high-tech projects.

As noted in the Concept of Development "Azerbaijan - 2020: Look into the Future" - along with the development of traditional manufacturing industries of the non-oil industry and the expansion of their export opportunities, will be supported the new competitive manufacturing industries. Stimulating mechanisms will be used to intensify attraction of domestic and foreign investments to the non-oil sector of the country.

In the medium term the main goal of state policy in the field of industry should be to ensure a stable and high growth rate of industrial production, improvement of its structure and increase of rationality.

In this area, the following main measures can be envisaged: elimination of high and moral and physical wear of production equipment, increasing the competitiveness of products, and increasing investment and innovation activity in the industry, stimulating the further growth of the non-oil sector.

It is necessary to pay special attention to the following measures in the direction of the development of the non-oil sector:

- Acceleration of restructuring and privatization processes;
- Acceleration of the transition to the application of international standards in industrial enterprises based on modern technology;
- Development of a free enterprise environment;
- Acceleration of measures related to the promotion of investment.

Thus, the investment policy determines the priority directions of capital investments and the direction of their use. To improve the efficiency of the economy, should be determined an optimal ratio of the directions of investment in the oil and non-oil sectors of the economy.

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Automation of accounting in agro-industrial enterprises with the use of unmanned aerial vehicles (uavs)

Abstract: The article is devoted to theoretical and practical aspects of automation of the accounting of agricultural enterprises activity. The purpose of the article is the theoretical basis and practical implementation of the possibility of accounting of documentation, inventory, estimate, costing, reflected in the accounts of operations of vegetable products growing (agricultural work) using drones. The object of the research is the organization of the automated accounting of agricultural enterprises activity. The subject of the research is a set of theoretical, methodological and practical aspects of the automated accounting of agricultural enterprises activity with drone using. Methods of analysis and synthesis are used to structure the domain of research, based on the identification and formalization of the automation accounting processes of agroindustrial production using information and communication technologies.

The results of research and innovation: the questions of automation of the primary accounting and inventory with detailed fragmentation and parameterization have been considered, recommendations on the implementation of the automated algorithm and control costs of planting materials, fertilizers, plant protection, fuels and lubricants, wages have been suggested in the article. The information model of an automated system of cost accounting of agricultural enterprises to monitor deviations

from the norms and costing of cost in growing vegetable products has been designed. Improve the organization of accounting in the cloud environment with distributed data access internal and external interested users to information about the activities of agricultural enterprises. However, public access to a single database can lead to loss of confidential information, which requires the development of effective methods of information protection of the accounting system.

Keywords: accounting, automated accounting, costing, drones, aero visual monitoring, agro-industrial enterprises.

Formulation of the problem. Modern tactics of conducting military operations include the use of unmanned aerial vehicles (UAVs). The demilitarization of the aerial survey technology contributes to the commercial use of drones. At present, the UAV is actively used for the purposes of determining the boundaries of the land plots and cadastral registration. The visual identification of the geographical boundaries of agricultural lands is provided with reference to the global positioning system. The services of aerovisual monitorings are of interest not only to specialists in land management, holders of cadastral inspection rights, but also to business entities who are owners or users of land plots.

The capabilities of the UAV significantly go beyond geolocation. Information on the visualization of electronic maps should be supplemented with primary accounting information for the purposes of automated inventory and accounting of land plots of the enterprise. However, the organization of accounting using UAV remains outside the field of view of scientists. At the same time, the method of analytical and synthetic accounting of individual land plots remains outdated. There is an inadequate modern economic paradigm for identifying land as an accounting object. The situation is complicated by the off-balance nature of the leased agricultural land. Business entities are not interested in full and adequate accounting of assets, do not need to be reported. It is also difficult to make a reliable estimate of the land, taking into account the qualitative characteristics.

Analysis of recent researches and publications. The historical development of Ukrainian geoinformation systems for the purposes of automation of economic systems was investigated by A.Ya. Sokhnych. The scientist proves that successful development of the Research and Production Center "Land Information

Systems” under the name of LPS 1.1 and LPS 1.2 is a successful computer system for performing monetary valuation of the lands of settlements. And the program-methodical complex “TEREN” of the State Scientific-Research Institute for Automation Systems in Construction [1, p. 292].

Nikolashin A.A. summarized data on the software market automation of accounting in agroindustrial enterprises with the division into groups depending on the size of the enterprise, the type of activity, the number of employees, the organizational and legal form of doing business [2]. In the sphere of developing national software for the purposes of accounting on the basis of “1C: Accounting for Ukraine 8.3” three firms “Mixt” [3], “In-Agro” [4] and “Quartz” [5] are actively working.

I.V. Hodniuk and A.N. Tchyzhevska developed thorough models of information exchange of specially equipped agricultural machinery, GPS-navigation equipment (GPS-modules, maps, channels in the Internet network), systems of precision agriculture (agronavigators with field maps support) with accounting and enterprise management system [6, p. 977].

According to Forbes Ukraine data, among 20 companies that actively use innovations, 6 positions are occupied by agro-industrial companies [7]. To increase the efficiency of activities, more and more agricultural enterprises are oriented towards the application of modern agricultural and information technologies. Revolutionary technologies in the field of information services for agro-industrial enterprises are owned by Drone.ua, which is engaged in active aerovisual monitoring of agricultural processes.

Drone.ua clients are the leading agricultural corporations of the country. The uniqueness of the company is that its product forms a tool for analysis using unmanned platforms. The analytics system helps to build accurate forecasting models based on land scanning data. Since autumn 2015, the engineers of the Ukrainian company are working on the creation of a web platform for working with geospatial data [8]. However, UAV capabilities for accounting automation are not taken into account, which determines the relevance and purpose of the article.

Purpose of the study. To improve the organization and methodology of accounting and control activities of agroindustrial enterprises the purpose of the study has been determined that deals with theoretical justification and practical implementation of the documentation automation capability, inventory, evaluation,

costing, mapping to the account of operations of vegetable production (agricultural work) using unmanned aerial vehicles. Disclosures of the purpose of the article provides for the fulfillment of a number of tasks arising from the elucidation of the benefits of aerovisual monitoring in the organization of accounting and control in agricultural enterprises and are related to the research:

- order of primary accounting and inventory of land plots through detailed fragmentation and parameterization of the land with the assignment of unique inventory numbers for all enterprises within Geocadastre;
- methodology for assessing and reassessing the value of land based on the qualitative characteristics of its state;
- algorithm of automated accounting and cost control of planting material, fertilizers, plant protection products, combustive and lubricating materials, wages in the process of agricultural work;
- systems of standard accounting of expenses of agroindustrial enterprises aimed at controlling deviations from the norms and calculating the prime cost in the cultivation of plant products;
- options for organizing accounting in a cloud environment for data processing with distributed access of internal and external interested users to the final information on the activities of agro-industrial enterprises.

Statement of basic materials of the study.

1. Inventory and land evaluation. An effective solution of land plots accounting organization drawbacks lays in automation of primary data processing obtained from UAV. An inventory inspection can be conducted without need to obtain physical access right to land plots adjacent to the object of inventory. In case of unauthorized land occupation access to controllers to land that is subject to inventory may be blocked [9, p. 111]. Similarly, the use of UAVs allows control procedures in difficult to access areas, where physical access to the inventory subjects is difficult or impossible.

Inventory is recommended to start with the visual fragmentation of the total land area. One fragment should define the boundaries of homogeneous area by geographical location, topography, soil composition and so on. It is advisable to assign a unique inventory number to each separate allotment for further inventory. It is also recommended to automatically synchronise codes of land plots with land

cadastre. For licensed organizations carrying out aerial observation, it is appropriate to allow introduction of detailed numbering of allotments. The mechanism of numbering involves division of synthetic cadastral code numbers into analytic numbers of land codification while its division into fragments. It is necessary to assign unique inventory numbers, which are not repeated in other enterprises.

Fragmentation must be observed with further economic use of lands. For example, on one land area it is advisable to grow one type of biological assets and the like. In accordance with inventory numbers, approved to each fragment, it is recommended to open a separate analytical account of accounting. Appropriate specification of land accounting will allow organizing a permanent inventory of agricultural lands and accurate evaluation of each fragment land.

During the inventory process, a visual identification of the UAV of land with automatic filling of inventories takes place. However, the form of descriptions based on the results of the inventory should be supplemented with the qualitative characteristics revealed in the aerial observation of land. The slightest change in the state of land plots can lead to a change in the value of land, which requires the selection of effective methods for assessing land.

To determine fair value of a land plot a fair assessment should be used. It is rather difficult to assess land correctly in the absence of the official land market. Therefore, when determining the value of agricultural land plots, it is advisable to proceed from the position of its utility as an asset for the enterprise. The change in utility requires the re-evaluation of land in the enterprise (Fig. 1).

The revaluation will allow bringing the regulatory monetary value of land to the expert one. In fact, expert evaluation involves the normative value of land, which is reflected in the primary documents of obtaining property rights, updated in line with inflation and changes in qualitative characteristics such as yield, access of communications, environmental condition, availability of adequate infrastructure, peculiarities of socio-economic development of the area, soil and bonitation properties, etc.

It is necessary to develop a system of coefficient influence of qualitative characteristics of land on its price. In case of deviation of quality of agricultural lands from a reference or previous indicator, it is recommended to automatically reevaluate the value of the land based on the previously developed algorithm.

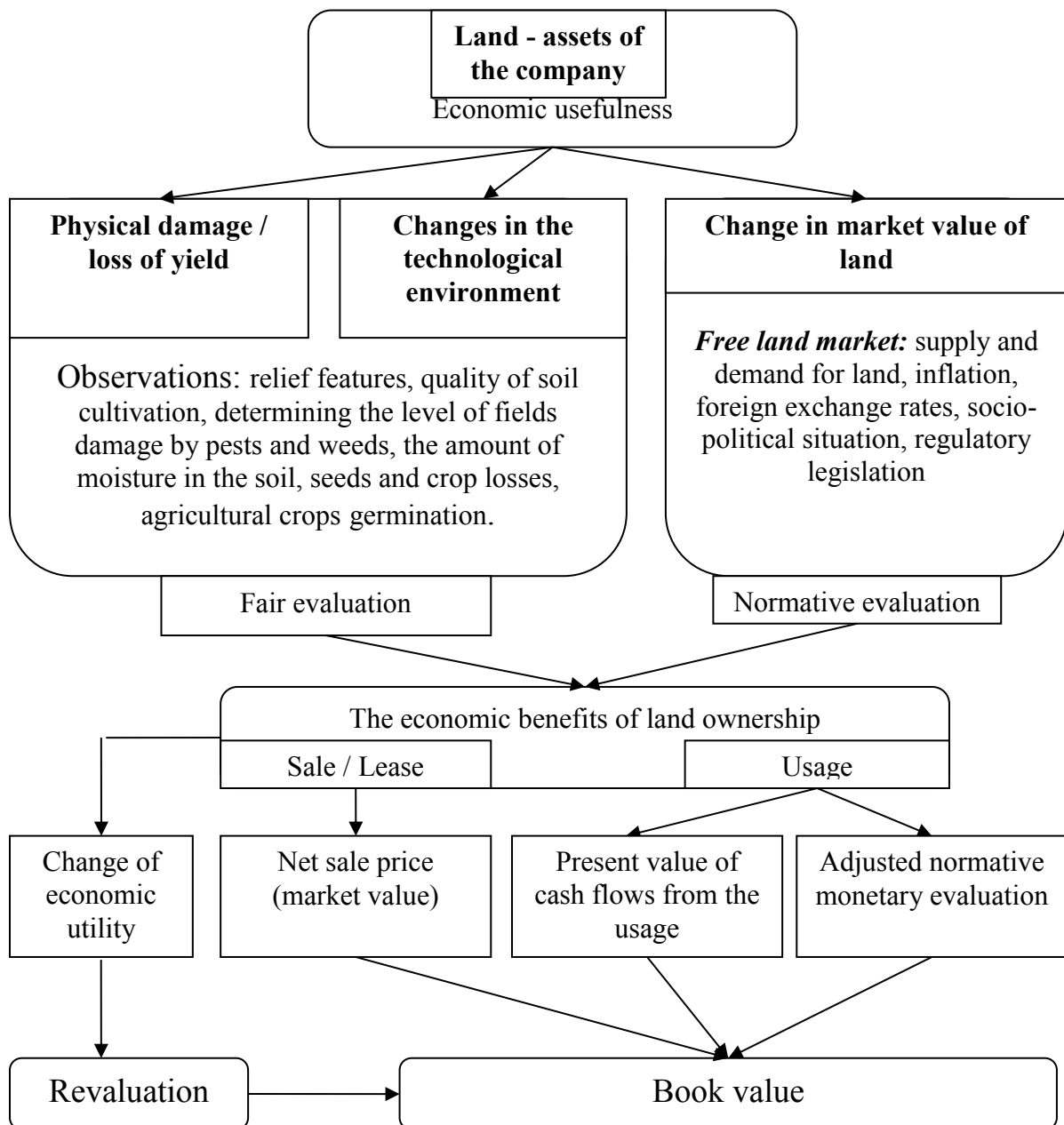


Fig. 1

UAVs are able to collect and provide information on the relief features, quality of soil cultivation, determining the level of field damage by pests and weeds, the amount of moisture in the soil, seeds and crop losses, calculating density of agricultural crops germination. Along with data on the geographical and administrative location of the evaluated land plot, it is appropriate to provide dynamic analysis of change in the economic utility of land. Each factor should be assigned with corrective coefficient that affects the fair evaluation of land.

Information on the qualitative characteristics of agricultural lands received from the UAV, should also be reflected in the primary documents of land accounting. All forms of primary documents should be supplemented with details to disclose detailed information on the specific characteristics of each fragment of land. The specification of qualitative characteristics will allow accounting and management specialists to operate with reliable information on the actual and potential value of land.

It is also advisable to send quality indicators of land to geocadaastre with the purpose of state control and further passportisation of agricultural lands. Issue of electronic passport for each land fragment will allow democratize land relations between lessors or the lessees. The access of lease land market participants to the passport will give an opportunity to reliably determine the influence of the agricultural enterprise on the value of land plots and the amount of lease payments. The state has a mechanism for operational control over the efficiency of land recourses use.

2. Automation of agricultural works accounting. Costing of the prime cost of agricultural crop production involves accumulation of expenses per costing unit. During the preparatory work before the end of the production cycle the enterprise has to apply effective costing units. Costing of prime cost is advisable attach to the cultivated land area [10, c. 69]. The aerial identification is possible with considerable detail of the area of the investigated land that in comparison with the conventional cadastral hectares provides significant reliability of land accounting. The enterprise has an opportunity to use a detailed costing unit for more efficient accounting of the prime cost of agricultural products.

Initially, based on information obtained from UAV, it is possible to reliably determine the need for planting material and fertilizers. According to the normative indicator of expenses per unit area of cultivated land, the need for seeds and mineral fertilizers is determined. After obtaining more precise data on the state of soils and the relief of land plots, the processing of which has been planned, it is advisable to automatically form electronic primary documents: "Consumption of seeds and planting material certificate" and "Use of mineral, organic and bacterial fertilizers and means of chemical plant protection certificate". The formed primary information is communicated to the materially responsible persons and production personnel [11].

The persons responsible for the storage of inventory items, on the basis of accounting information, transfer the planting material and fertilizers to perform

agricultural works. In the automated accounting system, the marks on the issuance of inventory items are stamped that is the basis for the formation of the corresponding entries in the accounts of cost accounting.

Similarly, it is recommended to carry out the fuel and lubricants consumption records. For the reliability of accounting, it is absolutely necessary for agricultural machinery to complete the cultivation of the full fragment of the land plot. The need for fragmented completeness is explained by the organization of fuels and lubricants accounting in accordance with the cultivated land plot area.

According to the information on the geometric size of the land fragment, it is possible to write off fuel expenses for the operation of agricultural machinery. Accounting for the work of machines and mechanisms involved in the cultivation of land, taking into account the size of the cultivated area allows establishing effective control over the expenses of the enterprise.

Costing unit – is a “square meter” in accounting of expenses for fleet functioning and equipment for agricultural purposes is more optimal for reliable costing, compared to the “kilometre of distance travelled” or “reference hectare”. Meter, which is designed to determine the distance covered by agricultural machinery, ignores peculiarities of field works. For example, for different types of crop, technology has to perform repetitive maneuvers in a particular land area or cultivate a plot of land area for several times. In a single working day, machinery and equipment can be used to cultivate the land where different plant species are sown. Also, there might be cases of official abuses by drivers aimed at fuels and lubricants acquisition or performing works outside the production task to obtain undue benefits. The use of the “reference hectare” is associated with an approximate definition of the cultivated area without taking into account the relief, geographical and agrotechnical conditions. Therefore, accounting for fuel and lubricant consumption in proportion to the distance travelled or to the cultivated area gives an average indicator that significantly distorts the actual prime cost of agricultural works.

To ensure the accuracy of calculating prime cost of preparatory and field works it is advisable to conduct cost accounting in accordance with the cultivated area. Depending on the need to cultivate each fragment of a land plot it is possible predict expenses of fuel and lubricants for the involved agricultural fleet. According to the established norms write-off of fuel and lubricants for industrial purposes is carried

out. Instead, it is advised to reflect the expenses associated with equipment arrival to the place of production tasks execution it is advised to reflect as a part of overhead expenses.

An interesting option is the opportunity to establish a link between awarding employees who work on agricultural equipment and the land plot they cultivate. To increase labor productivity during the intensive period of field works, it is advisable to set additional payment for each land fragment with completed production works.

In the automated accounting system, it is desirable to provide for the possibility of automatically charging additional payments to employees for the works performed [13, c. 307]. It is possible to automatically charge additional incentive payments to the basic salary, which are based on information from the UAV. The employee receives a material incentive to optimize the activity.

Thus, a significant level of reliability for calculating the prime cost of works performed per square meters of the cultivated land is provided. Unmanned aerial vehicles can make detailed maps of land cultivation, which gives possibility to predict and optimize material expenses for the implementation of preparatory and field works.

3. Automation of regulatory accounting. Since the agro-industry is characterized by a significant time lag between the beginning and the end of the cycle, most agricultural enterprises apply the principles of regulatory accounting in order to determine the cost of manufactured products or works provided.

The organization of regulatory accounting provides for the possibility of calculating the prime cost of production (works, services) until the production cycle is completed. Deviation from the norms can be identified in automated way, which ensures proper control over the production expenses of the enterprise. In the case of permanent significant deviations, it is necessary to revise the cost norms. To analyze the deviation from the normal production process and influence the prime cost of production, it is advisable to use the information obtained from the UAV.

Aerovisual identification allows predicting crop yields. Growth or reduction in yield directly affects the prime cost of production. Calculating the prime cost of production involves determining the proportion of total production expenses attributable to the costing unit of the finished product. As a consequence, reduction in the volume of products produced leads to increase in its value. At the same time, in

order to maximize yield, an agro-industrial enterprise can incur additional expenses, which will cause prime cost increase.

Initially, based on the information from the UAV on the density of the seeds germination, it is expedient to automatically predict the prime cost of production. If the planting material shows insufficient growth rates, a decision may be made to re-sow the fragments of the cultivated land area or to additionally use starting fertilizers. In both cases, depending on the land size, which requires repeated cultivation, it is possible to automatically determine the amount of unpredictable production expenses. The emergence of additional expenses for seeds or fertilizers leads to a deviation from the norms for the cultivation of a certain type of crop. It is advisable to automatically identify the fact of deviation from the norms, which requires a further revision of the value of the finished product.

Similarly, analysis of aerial indices climbing allows you to monitor the conditions of growing agronomic crop production. Based on the data on deviation from the norms of cultivation, it is expedient to automatically determine the amount of necessary fertilizers to stimulate plant growth. A similar situation is with the crops damage with pests and fields with weeds. Aerovisual monitoring allows form crop damage maps to predict the impact on the final yield indicator.

After costings it is possible to automatically write off mineral and organic fertilizers, plant protection products from the warehouse for production purposes. Electronic primary documents, records on the corresponding financial accounts are formed and, most importantly, the production prime cost is adjusted, which is determined by the normative method. Subsequently, aerial images from UAVs together with regulatory data will be used to analyze the reasons for deviating from the norms, making decisions at the tactical and strategic level of management about the further development of the agro-industrial enterprise.

A natural and anthropogenic factor can also damage the yield. Cases of natural disasters are frequent that destroy or damage agricultural lands. Also, significant damages may be caused by accidental or wilful human activity. The size of the actual damage can effectively be assessed by the UAV. Based on the costing of the area of damaged crops on each fragment of the land plot, it is expedient to automatically calculate the cost of the damage. Depending on the causes and

culprits, a decrease in yields, the ways in which the events are displayed in the accounts of accounting differ.

Based on the UAV data and normative accounting of expenses, it is possible to identify the culprits allowing you to compensate damage with the corresponding automatic formation of primary documents and accounts.

4. Formation of effective information in the cloud environment. The UAV sends collected data to the cloud information storage service.

It is advisable to form along with the technical and graphical information also an array of accounting data valuable for financial and management accounting at enterprises of the agro-industrial sector of the economy. Information database model of the automated account management and agricultural enterprise management is shown in Fig. 2.

Information on the options for organizing accounting using cloud information technologies has been expanded in the author's article [12]. It is also advisable to delegate some accounting functions to cloud service. In other words, a significant part of the operations for the formation of primary documents, evaluation and costing, preparation of projects of automatic records in the accounting accounts, sending generalized information to interested users can be assigned to the software installed on the cloud server. However, relevant computer program accounting software is not yet in practical use.

Initially, the cloud environment is able to process the primary accounting information provided by the UAV. It is automatically recommended to create electronic copies of primary accounting documents. All data to be filled in the standard forms of documents may be obtained from the technical information on Aerovisual Land Monitoring. Subsequently, primary credentials may be sent to enterprise accounting department or be processed in the cloud environment, which determines the degree of centralization of the automated information processing.

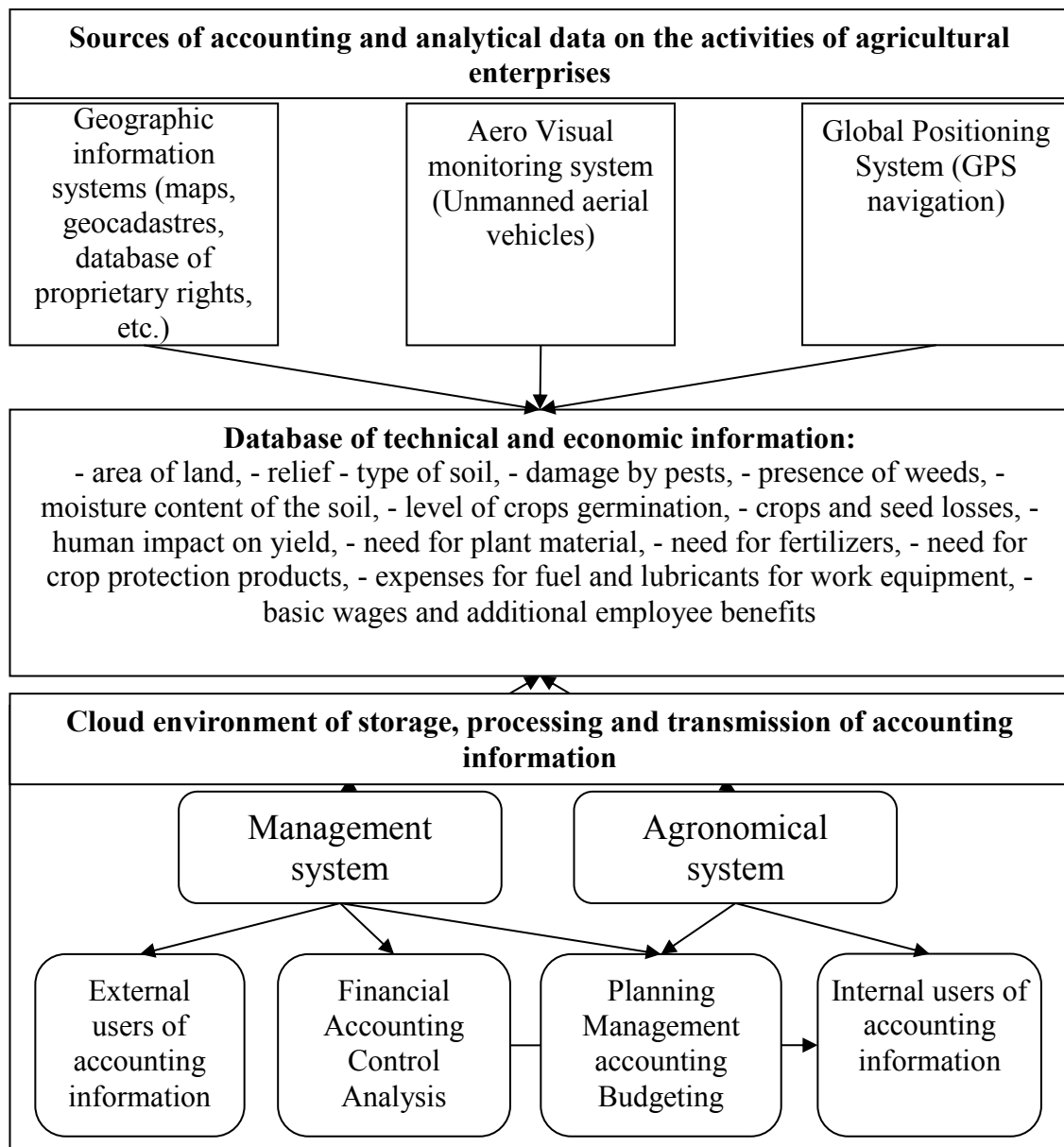


Fig. 2. Model of information exchange with the database of the automated system of accounting and management of the agricultural enterprise

On the basis of primary data on the developed algorithm, automatic estimation, revaluation of land and costing of the cost price of agricultural products are possible. All accounting operations can be performed automatically by monitoring of accounting, control and management specialists. Also, the automated accounting system is able to form drafts of records on the accounting accounts. The employee of the enterprise will be offered an optimal version of the accounting project. After authorization is received, the automatic operation will be carried out and updated.

Information, systematized in the cloud environment can be automatically distributed through communication channels to interested users. Some information may be of an executive nature. That is, with the prior consent of the agricultural enterprise management, automatic operational decisions are made. For example, the emergence of the need for planting material, fertilizers, plant protection products in aerovisual supervision triggers an automatic process of their writing off and transfer to production personnel. The systematization of information on time worked starts the process of calculating wages. Change in indicators of the state of land and crops through the forecasting of yields, activates the automatic transfer of production prime cost.

Reported accounting and management information becomes available to the responsible and interested parties via the Internet. Thanks to the distributed access system, each accounting or management specialist receives concentrated information. In accordance with the access rights, the amount of data received will vary. Similarly, it is advisable to inform about the activities of the agricultural enterprise and external users. Thus, communication convenience is provided in the processes of obtaining, processing and distributing credentials via the Internet in a cloud environment.

Conclusions. Historically, the achievements of scientific and technical progress were first introduced in the military sphere. Over time, demilitarization of technologies for the purpose of active economic use is taking place. Popularity is acquired by the civil use of unmanned aerial vehicles, including agro-industry.

It is recommended to use data provided by the Aero Visual Monitoring System in accounting automation in agricultural enterprises.

UAVs can collect and analyze information on area of land, relief, type of soil, damage by pests, presence of weeds, moisture content of the soil, level of crops germination, crops and seed losses, human impact on yield, need for plant material, need for fertilizers, need for crop protection products, expenses for fuel and lubricants for work equipment, basic wages and additional employee benefits.

Automation is subject to a significant number of operations on the formation of primary documents, inventory, valuation and costing, preparation of projects for automatic records on the accounting accounts, sending generalized information to interested users. All primary documents for agricultural work can be formed

exclusively in electronic form. Thanks to the UAV, the methodology of precise farming with detailed fragmentation and inventory of land becomes available, with the assignment of unique inventory numbers to each land fragment within the entire geocadaastre of Ukraine. Prompt and comprehensive identification of qualitative characteristics of fragments of land plots allows reliably determine the fair value of land. When the state of lands is changed, an automated revaluation of their value is possible. Similarly, on the basis of regulatory accounting, it is advisable to monitor deviations from the norms of expenses for ensuring crop yields, which will allow them promptly adjust their prime cost.

Collected and processed data are recommended to be sent to the cloud storage service. Based on primary documents, it is possible to automatically perform accounting procedures for processing accounting information. Reported accounting and management information is available through the Internet to internal and external users. Thanks to the distributed access system, each user will receive concentrated and dosed information necessary for making managerial decisions.

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Formation of regional legal services' market of Ukraine in modern conditions

Abstract: The basic conditions of formation of regional legal services' market in Ukraine are revealed. Carried out comparison of parameters of development and functioning of legal services' market in regional and national level in Ukraine. Researched the essence of modern methodological approaches to the formation of a regional reputational ranking of law firms and examined its characteristics. Carried out semantically analysis and formed the matrix of criteria of reputational ranking of law firms of the major rating directories.

Keywords: regional market, legal service, reputational ranking, law firm, advocacy.

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Формування регіонального ринку юридичних послуг України в новітніх умовах

Анотація: Розкрито основні умови формування регіонального ринку юридичних послуг України. Здійснено порівняння параметрів розвитку та

функціонування ринку юридичних послуг регіонального та національного рівня в Україні. Досліджено суть сучасних методологічних підходів до формування регіонального репутаційного рейтингу юридичних компаній та розглянуті їхні особливості. Проведено семантичний аналіз та сформовано матрицю критеріїв репутаційного рейтингу юридичних фірм основних рейтингових директорій.

Ключові слова: регіональний ринок, юридична послуга, репутаційний рейтинг, юридична компанія, адвокатська діяльність.

I. ВСТУП

Сучасна регіональна економіка вимагає розвитку в кожному регіоні сфери надання юридичних послуг, яка за рахунок висококваліфікованих кадрів, різноманітності організаційно-правових форм, виваженого контролю та нормативного регулювання з боку держави забезпечить взаємозв'язок між регіональними ринками, сприятиме формуванню нормативно-правового забезпечення соціального та економічного середовища регіону, юридично закріпить «правила гри» на регіональному ринку та дасть можливість слідкувати за їх дотриманням і нарешті забезпечить юридичних захист населення регіону та суб'єктів регіональної економіки.

Ринок юридичних послуг посідає особливе місце в економіці регіону – він забезпечує функціонування та взаємодію системи регіональних ринків, їх інтеграцію в світовий та національний ринок. Тому для його ефективного функціонування необхідним є формування стійкої системи регулювання та управління розвитком при узгодженому використанні інструментів державного, регіонального, ринкового та саморегулювання. Недостатній рівень розвитку ринку юридичних послуг в регіонах зумовлює юридичну незахищеність та юридичну безграмотність населення та представників бізнесу, зростання рівня корупції, зниження ділової активності, поглиблення проблем функціонування та взаємодії системи регіональних ринків та їх неефективну інтеграцію в національний та міжнародний ринок.

Становлення ринку юридичних послуг є однією з головних ознак цивілізованого суспільства, вирішальною передумовою стабільності розвитку економічної системи на загальнонаціональному та регіональному рівнях, гарантує узгодженість реформ в Україні зі стратегічними пріоритетами розвитку та модерні-

зації Європейського Союзу. Це зумовлює необхідність наукового вивчення питань, пов'язаних із розробкою організаційно-економічних механізмів формування та розвитку регіонального ринку юридичних послуг на основі наявних досліджень, узагальнення вітчизняного та зарубіжного досвіду.

Незважаючи на бурхливий розвиток в останні два десятиріччя, ринок юридичних послуг так і не отримав повноцінного теоретичного та методологічного обґрунтування в українській науковій літературі. Суттєвою проблемою є інформаційна закритість ринку, безсистемність законодавства у галузі регулювання діяльності організацій та фізичних осіб, які надають юридичні послуги. З іншого боку, в останні роки спостерігають значне зростання попиту на професійні юридичні послуги з боку фізичних та юридичних осіб. Внаслідок цього використання процедури проведення спеціальних досліджень забезпечить створення об'єктивної інформаційної бази для формування системи забезпечення ефективного функціонування регіонального ринку юридичних послуг за допомогою використання обґрунтованих рекомендацій щодо системного використання сучасних маркетингових інструментів у практиці регіональних юридичних фірм та практикуючих юристів

II. РИНОК ЮРИДИЧНИХ ПОСЛУГ УКРАЇНИ В НАЦІОНАЛЬНОМУ ТА РЕГІОНАЛЬНОМУ МАСШТАБАХ

Дослідження особливостей формування та розвитку регіонального ринку юридичних послуг у сучасних умовах передбачає використання системного підходу при визначенні основних чинників, які впливають на це соціально-економічне утворення. Регіональний ринок юридичних послуг з одного боку є підсистемою загальнонаціонального ринку юридичних послуг, з іншого – входить у систему регіональних ринків, являючись при цьому складно структурованою, відокремленою системою, яка характеризується сфокусованим територіальним контуром, певною завершеністю, і тому може досліджуватися автономно, хоча і з певною часткою умовності.

Демократизація та проведення політичних, соціальних та ринкових реформ можуть бути успішним лише в тому випадку, якщо вони будуть базуватись на ефективній правовій базі та на розвинутій правовій свідомості громадян. Становлення такої правосвідомості невіддільне від розвитку повноцінного ринку

юридичних послуг, формування та функціонування якого має ряд перепон пов'язаних з тим, що «право до цього часу поки що не зайняло належного місця у правосвідомості певної частини населення та у мотивації їх життєвої поведінки, що також пов'язано з відсутністю віри у можливість законним шляхом досягти вищого життєвого рівня, гідного становища у суспільстві» [1, с. 57-61].

На даний час на ринку юридичних послуг України активно створюються нові організаційні структури: адвокатські фірми, бюро, приватні юридичні фірми та нотаріуси. Так, за даними журналу «Юридична практика» 30% юридичних фірм були створені з кінця 80-х - 90-х р., а лєвова частка фірм – 63 % з 2001 р. по 2008 р. При цьому, частка нових компаній, що вийшли на ринок останніх два роки, склала 7%. [2, с. 104].

За останні роки представники економічного сектору та населення м. Чернівців та Чернівецької області виробили стійке раціональне ставлення до норм права та функціонування інститутів правової системи. Дані ряду досліджень демонструють, що все більша частина населення схильна бачити в законах дієвий інструмент захисту своїх прав і відстоювання своїх інтересів. З іншого боку, правовий нігілізм і надалі залишається досить стійким атрибутом масової свідомості співгромадян. Форми даного феномену можуть бути різними, однак вони проявляються, коли інтереси громадян (об'єктивно чи суб'єктивно) вступають в протиріччя із законом. У подібних ситуаціях більшість людей (за їх власними висловлюваннями) вважають можливим в тій чи іншій мірі ігнорувати вимоги законів.

Порівняння структури регіонального та національного ринку юридичних послуг показує, що переважна частина – 75% клієнтів на рівні регіону – складає населення м. Чернівці та області (рис. 1), у той час як в цілому по Україні надання юридичних послуг населенню складає всього 8% загальнонаціонального ринку (тут переважають послуги українським та іноземним юридичним особам – 44,8% та 42,9% відповідно) [2, с. 108].

На регіональному рівні надання юридичної допомоги юридичним особам складає всього 13%, хоча за оцінками респондентів у найближчий час даний сектор буде демонструвати тенденцію до збільшення. Надання послуг у рамках міжнародної співпраці юридичних фірм регіональному рівні носить поодинокий характер і складає незначну частку (рис. 1).

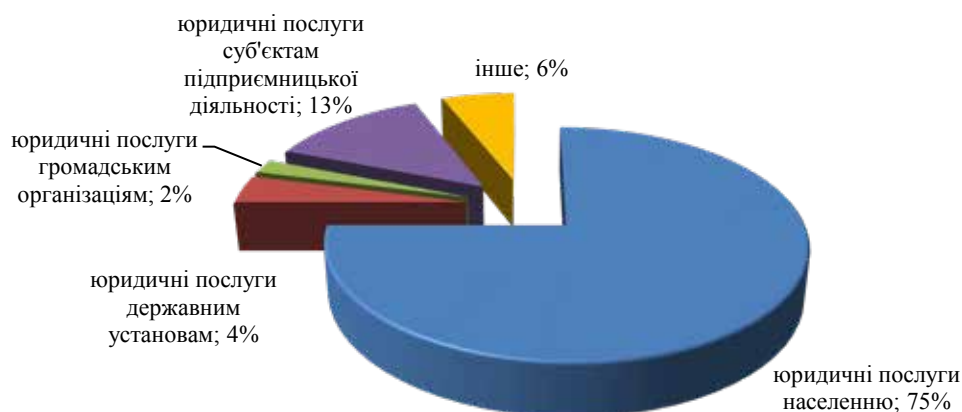


Рис. 1. Структура ринку юридичних послуг Чернівецької області за основними клієнтами (за оцінками респондентів), у %

Поділ регіонального ринку за основними клієнтами визначає і спеціалізацію попиту на юридичні послуги по м. Чернівці та Чернівецькій області. Так, найбільшу частку складають послуги щодо захисту інтересів фізичних та юридичних осіб у сфері цивільного права – 77,3%; надання юридичної допомоги від кримінального переслідування займає друге місце у структурі спеціалізації регіонального ринку юридичних послуг – 40,9%. Досить суттєвою є частка юридичних послуг по захисту інтересів фізичних та юридичних осіб у адміністративних справах та послуг по захисту інтересів громадян у сфері трудового права та соціального забезпечення – 18,2% та 13,6% відповідно (рис. 2).

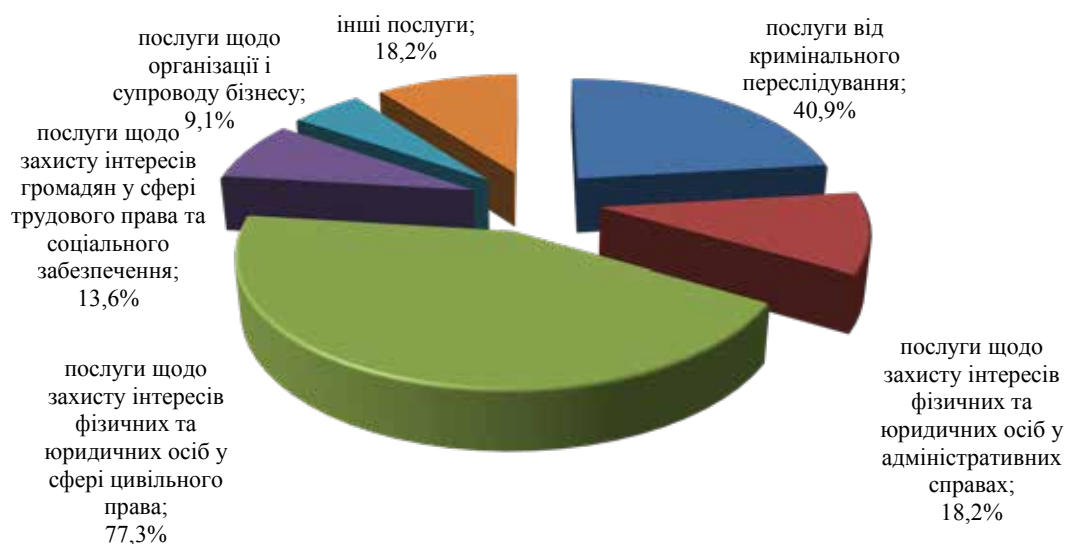


Рис. 2. Структура спеціалізації ринку юридичних послуг Чернівецької області (за відповідями респондентів), у %

Ключовими спеціалізаціями на національному рівні являються корпоративне право (для 75 % юридичних фірм загальнонаціонального рівня); банківське та фінансове право – 56,3%; податкове право та юридичні послуги у галузі нерухомості, землі та будівництва є однаково визначальними для 46,3% великих юридичних фірм [3]. У той час як кримінальне та цивільне право, що забезпечують визначальний вплив на формування доходів регіональних юридичних фірм на ринку м. Чернівців та області, у структурі спеціалізації національного ринку мають пріоритет лише для 15,6% та 9,4% великих юридичних компаній відповідно.

Аналіз територіальної структури ринку юридичних послуг Чернівецької області свідчить про домінуюче значення обласного центру, який забезпечує реалізацію метрополійних функцій даного регіонального ринку, оскільки переважна більшість – 75% юридичних послуг, що надаються в регіоні забезпечуються юристами та юридичними фірмами, які функціонують у м. Чернівці (рис. 3).



Рис. 3. Метрополійна спрямованість структури ринку юридичних послуг Чернівецької області (за відповідями респондентів), у %

Аналізуючи територіальну структуру правового комплексу України, ми можемо спостерігати значний дисбаланс, який також забезпечує чітку реалізацію метрополійної функції столиці. Більшість найбільших юридичних фірм зосереджена в м. Києві. Це закономірно, оскільки тут знаходяться центральні органи влади та вищі судові інстанції, тут важливі клієнти, вищі гонорари. Нерозвинена мережа офісів юридичних компаній призвела до того, що при підрахунку коман-

дного юридичної індексу, в рамках 15-25%, який визначає основні командні центри, не виявилось жодного міста, окрім столичної метрополії. Штаб-квартири декількох великих юридичних компаній розташовані в м. Одесі та м. Харкові ввели дані міста на рівень малих командних юридичних центрів. Також серед командних юридичних центрів, які розпочали своє формування можна виділити м. Львів, який за командним індексом у даному сегменті наближається до малих командних центрів. Існуючі диспропорції в даному секторі може змінити відкриття нових офісів у Львові, а також підключення до мережі Дніпра. Внаслідок нерозвиненої мережі офісів на регіональному та локальному рівні ділові зв'язки на ринку юридичних послуг не простежуються. На національному рівні всі потоки проходять через столицю, основними напрямками зв'язків є Одеса, Харків і Львів [2].

Споживачі юридичних послуг, які мають той чи інший досвід звернення до надавачів цих послуг, певною уявляють собі специфіку роботи адвокатів. Однак у масовій свідомості навіть цієї частини населення сприйняття діяльності адвокатів та юристів підпадає під вплив стереотипів і кліше, сформованих мас-медіа. Виняток становить дуже вузька група споживачів юридичних послуг, які мають досвід особистого звернення до послуг адвоката або юридичних фірм [3].

Установки потенційних клієнтів відносно специфіки адвокатської діяльності, багато в чому ґрунтуються на стереотипах, що формуються ЗМІ, а також на думках, що складаються під впливом їх власного референтного оточення. Домінування перерахованих джерел інформації при формуванні системи уявлень громадян про роботу юристів та адвокатури підтверджує необхідність формування більш ефективної комунікації адвокатської та юридичної спільноти з потенційними клієнтами.

При цьому аналіз результатів опитування вказує, що переважна більшість інформації, що стосується просування адвокатських послуг на регіональному ринку Чернівецької області спрямовується через особисті неформальні комунікаційні канали (рис. 4). Так, опитані респонденти вважають особисті рекомендації та використання візиток найбільш ефективними комунікаційними каналами – 81,8% та 59,1% відповідно. Із неособистих засобів просування юридичних послуг у м. Чернівці та області представники юридичної спільноти надають перева-

гу зовнішній рекламі (40,9% опитаних) та розміщенню рекламних повідомлень на регіональних ТРК (31,8%).

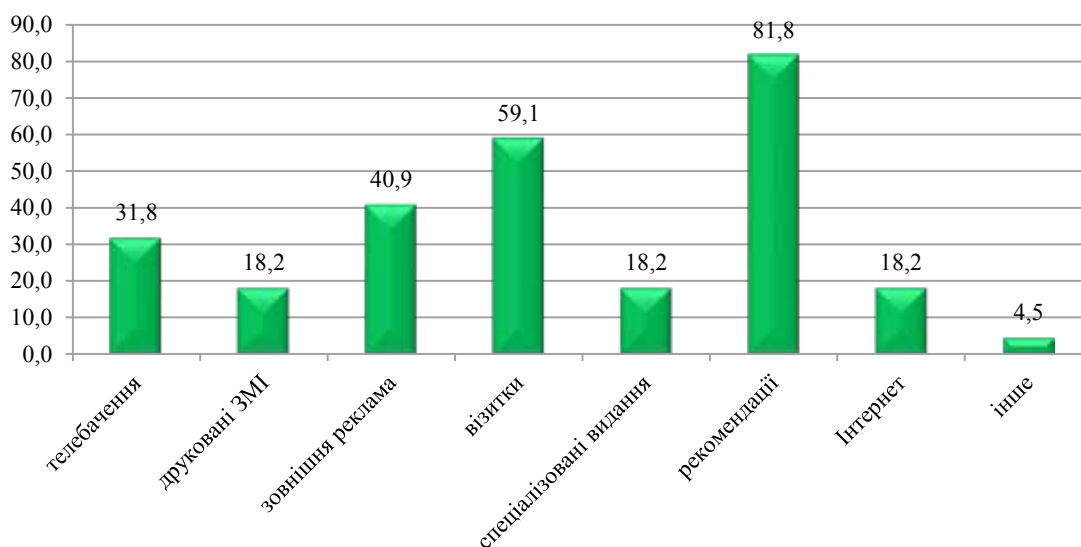


Рис. 4. Найбільш ефективні способи поширення інформації про адвокатські послуги (за результатами опитування респондентів), у %

Використання можливостей Інтернету як перспективного каналу для побудови ефективної комунікації з потенційною клієнтурою розглядає тільки 18,2% опитаних респондентів. Хоча даний напрямок комунікаційного зв'язку дає можливість юридичним фірмам м. Чернівці та області створити ефективну систему просування власних юридичних послуг не тільки з потенційними клієнтами на регіональному рівні, а й в подальшому створити передумови для охоплення клієнтури далеко за його межами.

Характерною рисою сприйняття потенційними клієнтами діяльності адвокатів є їх переконаність у «особливому» статусі адвокатури як надавача юридичних послуг. Громадяни, що не володіють досвідом звернення за юридичною допомогою, дуже слабо диференціюють організації, які надають юридичні послуги населенню. Певною мірою цьому сприяє ситуація, яка об'єктивно склалася на регіональних ринках юридичних послуг, якій властиві слабка структурованість пропозиції, недостатній рівень інформаційного охоплення населення, відсутність чітких комунікаційних механізмів взаємодії організацій і цільових аудиторій громадян. Серед фахівців, що працюють з населенням, представники адвокатури сприймаються громадянами як представники єдиного професійного

співтовариства, що є запорукою їх більш високого професійного статусу та якості надаваних послуг.

Ще одним із стійких стереотипів, що характеризують роботу адвокатури є переконання частини респондентів в тому, що головний елемент діяльності адвокатів – це бізнес-складова, як наслідок, адвокат найбільшою мірою, ніж інші категорії надавачів юридичних послуг, зацікавлений в отриманні максимального гонорару при мінімізації часових і організаційних витрат. Найбільш визначальним чинником, який впливає на розмір гонорару являється складність справи (4,14 балів з 5 максимально можливих). Також, з критеріїв, що впливають на можливий розмір гонорару, на думку опитаних респондентів, слід виділити досвід його роботи (3,45 балів), репутацію адвоката (3,36) та рівень професійної підготовки (3,32) (рис. 5).

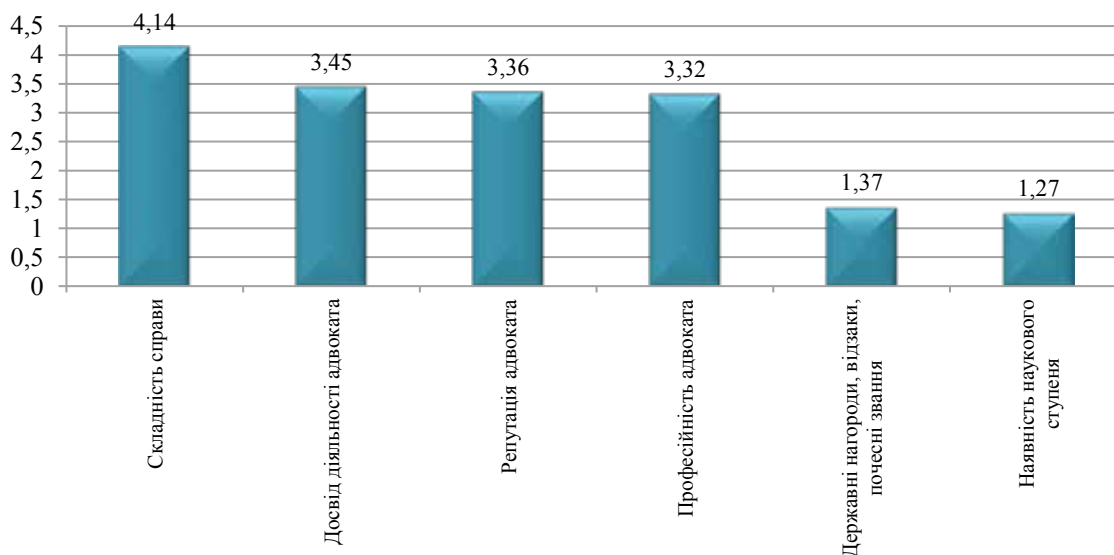


Рис. 5. Рейтинг чинників, які визначають розмір гонорару за відповідями респондентів (в межах від 1 (найменша) до 5 (найбільше) балів)

Представники юридичних фірм на загальнонаціональному рівні до визначальних чинників, що впливає на розмір гонорару вважають оцінку престижних міжнародних та вітчизняних репутаційних рейтингів, яка являється своєрідним інтегрованим показником наявного досвіду, відмінної репутації та високого рівня професійної підготовки.

Спеціалізація адвокатів у регіоні визначається рівнем оплати адвокатських послуг. Так, за даними опитування у м. Чернівці та області до найбільш пер-

спективних з точки зору можливої винагороди респонденти віднесли кримінальні справи (31,8% опитаних) та господарські справи – 13,1% (рис. 6). Одночасно найменш цікавими з точки зору отримання майбутніх гонорарів представники регіональної адвокатської спільноти вважають консультації – 18,2%; допомога соціально незахищеним верствам населення – 13,6% та трудові спори – 9,1% опитаних (рис. 7).

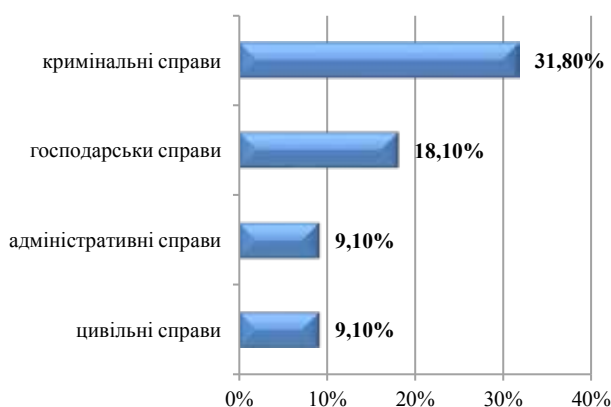


Рис. 6. Рейтинг найбільш високооплачуваних послуг адвоката (за відповідями респондентів), у %



Рис. 7. Рейтинг найменш оплачуваних послуг адвоката (за відповідями респондентів), у %

III. ФОРМУВАННЯ РЕПУТАЦІЙНОГО РЕЙТИНГУ РЕГІОНАЛЬНИХ ЮРИДИЧНИХ КОМПАНІЙ В УКРАЇНІ

Увага до репутації актуалізується через наявність проблеми вибору юридичної фірми чи юриста, яка постає перед потенційним клієнтом і через загостренням конкуренції на юридичному ринку України. В умовах конкурентної боротьби, щоб утриматись на юридичному ринку і стати успішним, юридичні фірми чи окремі юристи повинні більше уваги приділяти репутації та її оцінці, оскільки в основі вибору клієнта, зокрема, лежить нематеріальна складова. Значна кількість клієнтів обирає свого юриста чи юридичну компанію саме за рекомендацією знайомих, орієнтується на заслужене та підтримуване «добре ім'я», ділову репутацію професійної практики, особисту ділову репутацію юридичних фахівців, ділову репутацію конкретних знаменитостей юридичної практики тощо. Сучасний ринковий, маркетинговий клієнтоорієнтований підхід до розвитку юридичної компанії передбачає формування, підтримку, розвиток та закріплення репу-

тації юридичної фірми, іміджу окремого юриста, нотаріуса, адвоката серед партнерів, колег та клієнтів.

Невід’ємними складовими формування позитивного іміджу та репутації юриста на сучасному ринку юридичних послуг є подання інформації про власну діяльність до вітчизняних та зарубіжних рейтингових програм, членство у міжнародних та українських професійних юридичних об’єднаннях (спілках, асоціаціях), участь у міжнародних та всеукраїнських науково-практичних конференціях, круглих столах, симпозиумах, публічних обговореннях тощо. Зокрема, можна з впевненістю констатувати, що подання інформації в міжнародні юридичні рейтинги вже стало невід’ємною частиною розвитку бізнесу для більшості юридичних фірм, що функціонують в Україні. Зокрема, як свідчать дані Всеукраїнської дослідницької програми «50 провідних юридичних фірм України» до міжнародних юридичних рейтингів прагнуть потрапити три з чотирьох опитаних юридичних фірм. Переважна більшість провідних юридичних фірм України подають інформацію про себе в такі престижні міжнародні рейтингові директорії, як Chambers [4] та Legal 500 [5] (відповідно – 85% і 76% опитаних), приймають участь у рейтингах PLC Which Lawyer? [6] та IFLR[7] (відповідно – 52% і 48% опитаних) та в окремих вузькоспеціалізованих міжнародних рейтингових директоріях (Who’s Who Legal, WTR 1000) тощо [8, с. 116] (рис. 8).

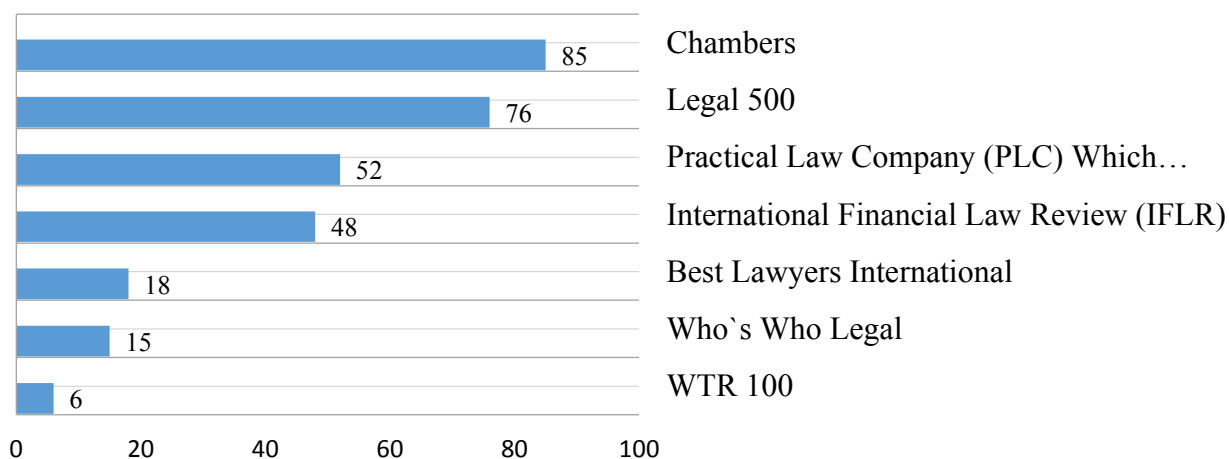


Рис. 8. Участь вітчизняних юридичних фірм у міжнародних юридичних рейтингових програмах

Зазначені міжнародні рейтинги отримали всесвітнє визнання серед юристів та їхніх клієнтів і вважаються одними із найбільш незалежних досліджень у правовій галузі завдяки використанню перевіреної методології. Міжнародні юридичні директорії складають рейтинги, враховуючи інформацію, яку надають самі юридичні фірми, а також проводять інтерв'ю з юристами, їхніми клієнтами, експертами ринку.

Найбільш поширеною західною юридичною директорією на ринку юридичних послуг є Chamber Europe [4], яка розпочала свою діяльність в 1999 році. Компанія Chamber Europe визначає провідних юристів та юридичних фірм усього світу. Її методологія передбачає декілька етапів: на першому етапі, здійснюється відбір юридичних фірм та юристів за галузями права; другий етап пов'язаний з оцінкою репутації юридичних фірм, яка визначається за такими критеріями як: технічні нормативні правові здібності, ділова завзятість, швидке надання послуги, клієнтське обслуговування, ефективність, меркантильність, комерційні хитрощі, працьовитість, цілеспрямованість, співвідношення ціни і якості; на третьому етапі юридичні фірми формуються у групи (1-6), з пріоритетністю першої. Після опрацювання результатів проведеного дослідження складаються підсумкові рейтинги. Шкала рейтингу позначається від 1 до 6, де 1 – найкраща група рейтингу, тобто «лідер ринку».

Даний рейтинг використовується для оцінки найбільш крупних, елітних фірм, які, наприклад, в Україні працюють у сфері банківського та фінансового права, корпоративного права, злиття та поглинання, вирішення спорів, трудове право, інтелектуальна власність, нерухомість, реструктуризація та банкрутство. Так, наприклад, в рейтингу міжнародного довідника Chambers Global 2015 року, високі позиції займає українська юридична фірма Астерс (одна з найбільших юридичних фірм України, що з 1995 року надає клієнтам повний спектр юридичних послуг. Персонал 100 працівників, серед яких 65 юристів), яка високо рекомендована в Україні в сферах банківського та фінансового права, корпоративного права та M&A, вирішення спорів, реструктуризації та банкрутства.

Використання даного рейтингу є практично неможливим для оцінки вітчизняних юридичних фірм регіонального рівня, оскільки змішування різних за розміром фірм знижує об'єктивність рейтингу, питання анкет та інтерв'ю будуть ви-

ходити за рамки практики більшості юристів, до того ж вартість рекламних опцій є достатньо високою для нестоличного бізнесу.

Одним з авторитетних міжнародних рейтингових юридичних довідників є The Legal 500 [5], який був вперше опублікований у 1988 році. Завданням даного рейтингу є виявлення провідних юридичних фірм і ключових експертів, які практикують у різних галузях права: банківського, фінансового, корпоративного, інвестиційного, податкового, злиття та поглинання, вирішення спорів, інтелектуальної власності, нерухомості. Серійне видання The Legal 500 надає найбільш повну й точну інформацію про юридичні фірми більш ніж зі 100 країн світу і використовується юридичними і приватними особами, корпоративними юристами, керівниками, фінансовими директорами і професійними консультантами, які працюють на національному та міжнародному рівнях. Згідно з методологією The Legal 500, кожен учасник дослідження отримує рейтингову оцінку на основі суми експертних суджень і рекомендацій з боку клієнтів (у 2015 році в опитуванні прийняло участь більш ніж 250 000 внутрішніх радників та юристів по всьому світу). Як правило, в одному грейді представлений ряд компаній, чиї позиції в певному сегменті юридичної практики визнані рівноцінними. Методологія даного рейтингу передбачає набір наступних критеріїв для оцінки репутації юридичної компанії: середня вартість юридичної справи, ступінь складності справи та участь юридичної фірми в її реалізації, рентабельність і фінансова ефективність юридичної фірми, а також кількість юристів, які працюють у ній [5].

Довідник The Legal 500 містить інформацію про можливості одержання юридичних послуг та користується авторитетом у питаннях об'єктивної оцінки можливостей юридичних фірм. У 2015 році дане дослідження рейтингувало українські юридичні фірми в практиках «Банки, фінанси і ринки капіталів», «Корпоративне право і M&A», «Вирішення спорів», «Інтелектуальна власність», «Податки», «Нерухомість і будівництво». У той же час, основний недолік у підборі критеріїв даної методології для оцінки рейтингу юридичних фірм полягає у ігноруванні національної та регіональної специфіки компаній, які функціонують у країнах СНД, оцінці перспективності юридичної фірми переважно за критеріями їх участі у міжнародній юридичній співпраці, можливості обслуговування інтересів великого міжнародного бізнесу, вибіркості та обмеженості галузей права, технічними недоліками презентації рейтингу (рекомендовані фірми розташовані

«одним списком», і тільки з описів можна дізнатися про сильні сторони тієї чи іншої юридичної фірми).

Одним з найбільш повних і регулярно оновлюваних міжнародних досліджень українського ринку юридичних послуг є видання PLC Which Lawyer? [6], відоме в усьому світі як основне джерело інформації про юристів та юридичні фірми. PLC Which Lawyer? надає інформацію про юристів, засновану на незалежних дослідженнях ринку, в розрізі таких практик: нерухомість, ринки капіталу, корпоративне право, судове представництво, банківське й фінансове право, антимонopolне регулювання, інтелектуальна власність, трудові правовідносини. Для присвоєння рейтингів враховуються оцінки експертів, досвід роботи юридичних фірм та юристів, а також відгуки клієнтів. Дані заносяться до зведеної таблиці, де навпроти назви фірми подана оцінка її позиції у відповідній галузі права: «лідер», «дуже рекомендована», «рекомендована або визнана в тій чи іншій галузі практики» [6]. Безсумнівною перевагою методології даного рейтингу є простота та інформативність його сприйняття. У той же час певні сумніви викликає відсутність прозорих критеріїв відповідно до яких експерти PLC Which Lawyer? проставляють оцінки позиції визначених юридичних фірм, що може характеризувати певний рівень суб'єктивності даного рейтингу. Саме непрозорість критеріїв може бути загрозою об'єктивності даного рейтингу при оцінці роботи юристів та юридичних компаній на регіональному рівні. У цьому випадку запорукою об'єктивності буде лише ділова репутація та порядність експертів.

Виданням, що спеціалізується на вивченні галузі юридичного консалтингу в сфері глобальних ринків капіталу, корпоративного права, угод злиття й поглинання, банківського сектора, проектного фінансування є IFLR1000 [7]. Для складання репутаційного рейтингу експерти видання IFLR1000 детально вивчають ринок юридичних послуг та його гравців. Інформація про останні тенденції надається юридичними компаніями в окремих практиках, галузях та регіонах, в змінах законодавства, що стосуються бізнесу. Видання IFLR 1000 публікує один з найпрестижніших та найповажніших в світі рейтингів юридичних фірм, відомий своєю комплексною та неупередженою методологією. Рейтинг враховує такі критерії як: рекомендації клієнтів, керівників юридичних служб, місцевих, міжнародних приватних та громадських інституцій, а також відгуків колег. Рейтинг вперше було опубліковано в 1990 році, і сьогодні досліджує юридичний ринок у

понад 120 юрисдикціях світу. Методологія даного рейтингу передбачає надання більш структурованої інформації по оцінці діяльності юридичних компаній і краще допомагає зорієнтуватись у спеціалізації їх роботи та регіональній представленості, що безперечно покращує об'єктивність сприйняття репутаційного рейтингу клієнтським та професійним середовищем.

Заслуговує на увагу репутаційна оцінка Best Lawyers [9], яке є одним з найстарших та найавторитетніших видань США, що складає рейтинги на основі відгуків представників юридичного бізнесу. Вже 25 років це видання допомагає юристам і клієнтам у пошуку юридичних консультантів в незнайомих юрисдикціях або практиках. У довіднику знаходяться списки видатних юристів, що сформувались на основі ретельних опитувань, у яких тисячі провідних юристів конфіденційно оцінюють своїх колег. В основу видання покладено понад 2,8 мільйони характеристик щодо професійної діяльності юристів, що надаються іншими юристами.

Методологія Best Lawyers повністю базується на експертній оцінці клієнтів, маркетингових команд та провідних юристів, що оцінюють професійні здібності своїх колег в певній сфері юридичної практики. При цьому, застосовують складний, сумлінний, раціональний і прозорий підхід, за допомогою якого складається найбільш важлива і незалежна оцінка якості юридичних компаній. В рейтингу приймають участь практикуючі юристи з досвідом роботи не менше 10 років. Юристи, які отримали найбільше позитивних відгуків автоматично зараховуються до наступного видання Best Lawyers. Безсумнівною перевагою даної методології є орієнтація на зважену оцінку клієнтів як основних суб'єктів ринку юридичних послуг, врахування думки маркетингових спеціалістів, яка характеризує політику та імідж юридичної компанії на ринку, а також залучення широкого кола професійних досвідчених юристів, що ведуть практику у різних галузях права та у різних регіонах країни і мають досвід роботи у різних за розмірами компаніях. Такий підхід значно розширює критерії рейтингу і збільшує його цінність та об'єктивність з точки зору споживчого вибору та конкурентного середовища ринку юридичних послуг.

Who's Who Legal [10] – незалежне міжнародне рейтингове видання, яке щорічно проводить дослідження в середовищі правової спільноти. Рейтинг Who's Who Legal надає глибокий аналіз ринку юридичних послуг в сфері госпо-

дарського права та рівня професіоналізму окремих юридичних фірм і фахівців даної галузі в національних юрисдикціях. Видання Who's Who Legal цінується за неупередженість своїх висновків і прозору методологію досліджень. Щороку рейтинг Who's Who Legal проводить опитування юридичних консультантів, клієнтів та експертів зі всього світу для визначення провідних фахівців у сфері господарського права. До фінального списку включені лише ті юристи, які отримали найбільшу кількість рекомендацій.

Методологія рейтингу, що складається Who's Who Legal окрім врахування оцінок клієнтів, практикуючих юристів та спеціалістів у різних галузях бізнесу, соціального життя, політики тощо спрямована на досягнення об'єктивної представленості у рейтингу юридичних фірм різного розміру та географічного розташування, що забезпечує концентрацію уваги в основному на оцінці рівня компетентності та професіоналізму досліджуваних юридичних компаній. Такий підхід дозволяє охопити набагато ширшу сукупність практикуючих юридичних фірм, а не тільки найбільш відомих та великих компаній, що забезпечує можливість невеликим та регіонально віддаленим від ділових центрів юридичним компаніям вийти на новий рівень ділової активності завдяки представленості їх у даному рейтингу.

Крім західних рейтингових юридичних директорій, які успішно працюють на ринку юридичних послуг України, свою діяльність розпочали українські рейтингові директорії, найбільш потужною серед яких є «ГВардія юридичних компаній» [11].

Вітчизняне дослідження «ГВардія юридичних компаній» (видавництва «Контракти») з 2004 року, щорічно пропонує рейтинг, який спрямований на одержання об'єктивної та незалежної оцінки конкурентних переваг юридичних компаній України споживачами юридичних послуг – українськими компаніями-клієнтами, а також підприємствами, що беруть участь в рейтингах «ГВардії» з 2004 року. При складанні рейтингів враховуються результати аналізу анкет не тільки експертної ради, а й компаній-клієнтів юридичних фірм-номінантів. Рейтинг попиту на юридичні послуги складається за спеціалізацією діяльності юридичних компаній: банківська сфера, страхування, ціні папери, нерухомість, фармацевтика, транспорт, енергетика АПК, телекомунікації. В основі складання

рейтингу репутації враховуються такі показники як: відгуки клієнтів та колег, вартість угод, та їх кількість за рік [11].

Методологією українського рейтингу «Гвардія» передбачається, створення переліку юридичних компаній, які ввійшли до рейтингу попиту на юридичні послуги, який щорічно формується журналом «Гвардія», а також компанії з топ-50 провідних юридичних фірм України і компанії з «бронзової ліги» провідних юридичних фірм України за версією газети «Юридична практика» та Видавничого Дому «Комерсант-Україна». Узагальнюючий репутаційний формується з юридичних фірм, які отримали найкращі результативні оцінки компаній-користувачів юридичних послуг та експертної ради. Методологія «Гвардії» орієнтується на врахування клієнтоорієнтованого підходу при формуванні рейтингу, однак відсутність критерію регіональної представленості юридичних фірм призводить до висвітлення діяльності виключено великих столичних компаній, залишаючи поза увагою особливості функціонування та діяльності регіональних гравців ринку юридичних послуг.

Розглянуті підходи щодо визначення основних складових методології рейтингів юридичних компаній дають можливість здійснити семантичний аналіз та сформуванню матрицю критеріїв репутаційного рейтингу (рис. 9).

Юридичні рейтингові директорії Критерії	Chamber Europe	The Legal 500	PLC Which Lawyer?	IFLR1000	Best Lawyers	Who's Who Legal	Гвардія юридичних компаній	Σ
технічні нормативні правові здібності	X							1
ділова хватка	X							1
швидке надання послуги	X							
клієнтське обслуговування	X							1
ефективність фірми	X	X						2
меркантильність	X							1
комерційні хитрощі	X							1
цілеспрямованість	X							1
вартість справи		X					X	2

співвідношення ціни і якості	X							1
досвід роботи юридичних фірм та юристів					X			1
ступінь складності угоди		X						1
рентабельність фірми		X						2
відгуки клієнтів			X	X	X	X	X	5
рекомендації колег				X	X	X	X	3
досвід роботи фірми			X					1
оцінка експертів			X					1
кількість штатних працівників		X						2
кількість угод за рік							X	2
регіональна мережа				X	X	X		3

Рис. 9. Матриця критеріїв, що формують репутаційний рейтинг

На основі аналізу поданих вище критеріїв різних рейтингових компаній можемо зробити висновок, що при складанні репутаційного рейтингу юристів та юридичних компаній найбільш важливими та ефективними конкурентними перевагами є відгуки клієнтів та рекомендації колег. Третім за важливістю є критерій наявності у юридичної фірми регіональної мережі або представленості у декількох регіонах, що є вагомим показником при складанні репутаційного рейтингу вітчизняних юридичних компаній, оскільки особливості ведення юридичної практики та спеціалізація по галузях права столичних компаній та регіональних юридичних фірм певною мірою відрізняються і мають свою специфіку. Така тенденція загалом властива для сучасного українського юридичного ринку, умови якого передбачають бажання споживачів мати якісне професійне юридичне обслуговування як у центрі, так і в регіонах.

IV. ВИСНОВКИ

Порівняння параметрів розвитку та функціонування ринку юридичних послуг регіонального та національного рівня дозволяє визначити специфічні риси останнього. Специфіка функціонування регіонального ринку юридичних послуг визначається в першу чергу орієнтацією на обслуговування потреб населення, у той час як загальнонаціональний ринок юридичних послуг демонструє орієнтацію на пріоритетність обслуговування бізнес-середовища. Саме ця ключова ро-

збіжність визначає особливості спеціалізації регіонального ринку юридичних послуг, пріоритетність використання особистих засобів комунікативного зв'язку з потенційними клієнтами, специфіку формування розміру гонорарів та перспективність ведених справ. Тенденції розвитку загальнонаціонального ринку юридичних послуг виступають своєрідним стратегічним пріоритетом для його учасників регіонального рівня, вказують останнім потенційні можливості розвитку, демонструють механізми імплементації найбільш перспективних регіональних гравців у більш статусну національну юридичну спільноту.

Об'єктивність та повнота регіонального репутаційного рейтингу юридичних компаній залежить від таких чинників: орієнтація на виважену оцінку клієнтів як основних суб'єктів ринку юридичних послуг; залучення широкого кола професійних досвідчених юристів, що ведуть практику у різних галузях права та у різних регіонах країни і мають досвід роботи у різних за розмірами компаніях; врахування думки маркетингових спеціалістів, яка характеризує політику та імідж юридичної компанії на ринку; об'єктивна характеристика юридичних фірм різного розміру та географічного розташування; включення у методіку рейтингу критерій оцінки клієнтів та рівня задоволеності послугами, що надаються юридичними компаніями. Такий підхід значно розширить критерії рейтингу, збільшить його цінність та об'єктивність з точки зору споживчого вибору та конкурентного середовища ринку юридичних послуг, дозволить охопити набагато ширшу сукупність практикуючих юридичних фірм, а не тільки найбільш відомих та великих компаній, забезпечить використання адекватної методології у практиці оцінювання українських юридичних компаній.

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To the definition of «hunting tourism»: managerial-jural missions support

Abstract: This article analyses contemporary approaches to determination of the definition “hunting tourism”. Reviewed are main problems of jural and managerial-economic direction, which create obstacles for the hunting tourism in Ukraine.

Keywords: tourism, hunting tourism, hunting ground, hunting, managerial-jural support.

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До поняття «мисливський туризм»: завдання організаційно-правового забезпечення

Анотація: У статті здійснено аналіз сучасних підходів до визначення поняття «мисливський туризм». Розглянуто основні проблеми правового та організаційно-економічного спрямування, які перешкоджають розвитку мисливського туризму в Україні.

Ключові слова: туризм, мисливський туризм, мисливське господарство, полювання, організаційно-правове забезпечення.

Процес інтеграції України з європейським співтовариством передбачає проведення низки політичних, економічних і соціальних заходів. Реформування національної економіки можливе лише шляхом перегляду існуючих підходів до процесу використання та відтворення ресурсно-сировинного потенціалу країни, а також пошуку нових ідей для розвитку підприємницької діяльності. Формування нормативно-правового забезпечення та стимулювання розвитку нових напрямів підприємництва в Україні повинні відобразитися в переліку основних завдань державної політики щодо розвитку малого та середнього бізнесу.

У розвинених країнах світу малий і середній бізнес розглядається як суб'єкт, що формує основу для становлення демократичних взаємовідносин, який водночас спрямований на вирішення соціальної політики зайнятості. Значний потенціал для економічного та соціального зростання шляхом розвитку малого підприємництва прихований в одній із пріоритетних галузей національної економіки – туристичній, що неодноразово зазначалось і знаходило своє відображення в різноманітних нормативно-правових документах як на національному так і на міжнародному рівнях.

За своєю суттю сучасний туризм визначається як багатогранне явище, що тісно пов'язане з економікою, історією, культурою, географією, медициною, екологією тощо. Крім цього, в значній мірі туризм характеризується як одна з форм традиційного природокористування, що відображається у використанні природних ресурсів у рекреаційних цілях, в тому числі й ресурсів мисливської фауни.

Недостатнє приділення уваги з боку науковців, суб'єктів господарської діяльності, урядових і неурядових організацій проблемам пов'язаних із залученням ресурсів мисливської фауни в туристичних цілях і визначає актуальність наукового дослідження.

Метою дослідження є визначення поняття «мисливський туризм», оцінка правового та організаційно-економічного забезпечення для його розвитку в Україні.

Використання ресурсів мисливської фауни як об'єкту туристичної діяльності є достатньо розповсюдженим явищем у розвинених країнах світу. В цей же

час, специфічність та індивідуальні підходи до використання ресурсів мисливської фауни визначають мисливський туризм одним із найбільш дорогих, елітних видів туризму. Мисливський туризм в Україні знаходиться на стадії формування та потребує ґрунтового наукового обґрунтування з метою визначення ефективного правового та організаційно-економічного механізму його функціонування. Невирішеними та відкритими залишаються питання визначення законодавчого регулювання мисливського туризму в Україні.

Варто відзначити, що періодом зародження мисливського туризму вважається перша половина XIX століття. Саме в цей час, серед заможної європейської знатті широкого розповсюдження набувають подорожі пов'язані із полюванням на африканських екзотичних тварин з метою отримання їх трофеїв (бивні слона, ікла лева, шкіра леопарда, ріг носорога тощо). В подальшому цей вид подорожі отримав назву «сафарі», який і в теперішній час формує підґрунття для розвитку мисливського туризму.

Розглянемо найбільш відомі підходи до визначення поняття «мисливський туризм». Зокрема, Шандор Ф.Ф. та Кляп М.П. дають таке визначення мисливського туризму (аутфітер-туру) – це різновид туризму, метою якого є пошук, вистежування, переслідування та здобич деяких видів диких тварин [1]. У світовій практиці мисливський туризм розглядають як один із напрямів міжнародного туризму, метою якого є задоволення потреб іноземних мисливців-туристів. Найбільш розповсюдженим серед західних науковців є наступне визначення мисливського туризму: організована платна подорож з метою трофейного полювання, яка забезпечується комплексом специфічних послуг [2]. Відповідно до «Європейської хартії про полювання і біорізноманіття» (Страсбург, 2007) [3] мисливський туризм визначається як форма туризму, яка здійснюється мисливцями, які можуть іноді подорожувати на значні відстані від постійних місць проживання та/або власних мисливських угідь з метою полювання. Це визначення включає як внутрішні, так і міжнародні поїздки для полювання. При цьому місце призначення полювання є більш екзотичним і незвичним.

На наш погляд, поняття «мисливський туризм» якого дотримуються переважна більшість науковців є складовою частиною поняття «мисливство», що передбачає вид спеціального використання тваринного світу шляхом добування мисливських тварин, які перебувають у стані природної волі або утримуються в

напіввільних умовах у межах мисливських угідь, а мисливське господарство як галузь національної економіки включає процес надання послуг при здійсненні полювання [4].

Як можна побачити, в основі наведених визначень мисливського туризму лежить споживчий напрям використання об'єктів тваринного світу, шляхом добування диких мисливських тварин за допомогою стрілецької зброї, з метою отримання трофею. Саме цей підхід і визначає мисливський туризм як один із найприбутковіших сучасних різновидів туризму, оскільки вартість одного туру становить від 3 до 10 тис.

Самі ж мисливці вважають полювання одним із видів відпочинку чи рекреації, способів спілкування з природою, що ґрунтується на процесі добування дичини.

На наш погляд, крім екстремального (добування мисливських тварин, отримання трофею), можна виділити й інші альтернативні види мисливського туризму, а саме спортивно-оздоровчий та пізнавальний. До них слід віднести такі форми мисливського туризму: прогулянки по лісу з метою спостереження за дикими тваринами, фото- та відеополювання, трофейна справа, мисливське собаківництво, таксидермія (виготовлення опудал тварин) та ін. Таким чином, мисливський туризм необхідно розглядати не лише з позиції споживання, але й як діяльність, яка спрямована на задоволення потреб мисливців у послугах естетичного, морального, рекреаційного і культурного характеру в процесі перебування їх в природному середовищі існування мисливських тварин. Зазначимо, що саме альтернативні види мисливського туризму стають все популярнішими в країнах Центральної та Південної Африки і в майбутньому можуть повністю замінити традиційне сафарі.

Враховуючи викладені твердження нами пропонується наступне визначення мисливського туризму – це організована платна подорож, яка спрямована на задоволення потреб споживачів (мисливців) у послугах екстремального, спортивно-оздоровчого чи пізнавального характеру в процесі перебування їх в природному середовищі існування мисливських тварин.

Аналіз нормативно-правового забезпечення в сфері мисливського господарства та туристичної діяльності в Україні підтверджує наявність неврегульованих і проблемних питань щодо функціонування та розвитку мисливського ту-

ризму. Зокрема, в Законі України «Про туризм» (1995) таке поняття як «мисливський туризм» зустрічається лише у переліку як один із видів туризму. У Законі України «Про мисливське господарство та полювання» (2000) взагалі не згадується мисливський туризм як перспективний напрям господарської діяльності, що в свою чергу суперечить основним міжнародним домовленостям у сфері охорони, відтворення та використання ресурсів мисливської фауни.

Хоча деякі нормативно-правові акти в Україні й оперують цим поняттям, проте не дають його правового визначення, оскільки мисливському туризму притаманні особливі ознаки, що вирізняють його від інших видів туризму. На відміну від України, господарська діяльність, яка пов'язана з наданням туристичних послуг у сфері мисливства, відображена в законодавстві розвинених країн світу та регулюється низкою підзаконних нормативно-правових актів. Для прикладу можна навести досвід сусідньої Польщі. В польському законі «Про мисливство» (1995) мисливському туризму відведено цілий розділ. Згідно із польським законодавством мисливсько-господарська діяльність, пов'язана з наданням туристичних послуг, включає: 1) полювання, яке проводять іноземці на території Польщі; 2) полювання за кордоном.

Останніх декілька років в Україні спостерігається активізація зусиль науковців та громадських організацій в напрямі удосконалення нормативно-правового забезпечення й ефективного управління в сфері охорони, відтворення та використання ресурсів мисливського господарства. Зокрема, проблеми державного регулювання та правозастосування, підвищення економічної ефективності ведення мисливського господарства, у тому числі і мисливського туризму, а також пропозиції щодо їх вирішення обговорювалися та публіковані в рамках Регіональної програми «Правозастосування й управління в лісовому секторі країн східного регіону дії європейського інструменту сусідства та партнерства II» (2014-15 рр.), учасником якої був і співавтор даного дослідження [5]. Зауважимо, що, окрім даної ініціативи, вагомих зрушень у цьому напрямі не відбулося.

Оскільки основу для розвитку мисливського туризму становлять саме іноземні мисливці-туристи, тоді іншою проблемою правового спрямування є врегулювання документального супроводження іноземних громадян в Україні. Особливою популярністю в Європі мисливський туризм користується у мисливців Ні-

меччини. В Німеччині налічується 369,3 тис. мисливців, які є одним із найнижчих показників у Європі по відношенню до чисельності населення. Незважаючи на достатню кількість дичини та високу якість супутніх послуг, майже половина (48,7%) німецьких мисливців користувалися послугами міжнародного мисливського туризму, а 38% користуються цими послугами один раз в рік або кілька разів на рік. Досвід організації мисливського туризму у північних країнах Європи (Швеції, Фінляндії) показує, що дохід від оренди мисливських угідь та організації мисливського туризму становить основну частину доходів більшості землевласників [6, с. 115].

Відповідно до ст. 13. Закону України «Про мисливське господарство та полювання» іноземці можуть здійснювати полювання на території України за документами на право полювання (посвідчення мисливця, відповідний дозвіл на право користування вогнепальною мисливською зброєю, паспорт на собак мисливських порід тощо), які видані відповідними органами інших держав. Проте не до кінця визначені норми щодо встановлення еквівалентності документів на право полювання іноземців, які повинні отримати громадяни України.

Організаційно-економічне забезпечення мисливських турів як для іноземців так і громадян України, на території України передбачає вирішення достатньо великої кількості проблемних завдань. Мисливський туризм знаходиться на стику мисливського, лісового, сільського, водного господарств і туристичної галузі загалом. Очевидно, що найбільш тісний і взаємозалежний зв'язок мисливського туризму з мисливським господарством, який в перспективі може призвести до конфлікту інтересів між мисливцями, користувачами мисливських угідь, державою та приватними землевласниками. Підтвердженням цього є й те, що відповідно до Національного класифікатору України ДК 009:2010 «Класифікація видів економічної діяльності» туристична та мисливсько-господарська діяльність віднесені в різні секції, зокрема: мисливське господарство – секція А Сільське господарство, лісове господарство та рибне господарство, розділ 01 Сільське господарство, мисливство та надання пов'язаних із ними послуг; туристична діяльність – секція N Діяльність у сфері адміністративного та допоміжного обслуговування, розділ 79 Діяльність туристичних агентств, туристичних операторів, надання інших послуг із бронювання та пов'язана з цим діяльність. Саме ці та безліч інших організаційно-правових проблем створюють перешкоди для

успішного розвитку мисливського туризму в Україні, оскільки потрапляє у сферу регулювання великої кількості нормативно-правових актів та управлінських структур.

Оминаючи дані суперечності, мисливський туризм залишається малодослідженим і перспективним напрямом туристичної діяльності. При розробленні ефективних правових норм у сфері мисливського туризму необхідно спиратись на міжнародний досвід та історичні особливості національного полювання з врахуванням принципів сталого екологічно збалансованого розвитку.

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Ecologization as a priority for enterprise management

Abstract: The ecologization issues in Ukraine, both at the national and enterprise levels have been examined in the article; the metrics used to track ecologization performance of the enterprise have been singled out, and the relationship between environmental costs and gross regional income, environmental charges, and environmental pollution fines has been examined with application the regression model. The importance of organizational and economic mechanism to ensure the ecologization has been indicated. We have found that the environmental situation can be improved by setting priorities in the environmental and economic policy and the ecologization mechanism should be compulsory for all enterprises regardless of business size or their activity.

Keywords: ecologization of the enterprise, economic and environmental priorities, sustainable development, greening of production technology, and ecologo-economic efficiency.

1. INTRODUCTION

Currently, the major indicator of well-being and competitiveness of any country is an economic growth that has both positive and negative effects associated with the impact of intensification of human activities on the environment. A lot of studies

confirm that the environmental degradation is influenced primarily by economic, legal, and political factors. These factors have impact on various economic entities; they are different in scale and seriousness of the consequences. Today there is a steady increase in environmental problems and many countries have already implemented the environmental policy and natural resources management based on the principles of sustainable development at different hierarchical levels (enterprise – region – state – group of states).

There are plenty environmental problems in Ukraine caused by deterioration in the development and restoration of the natural resource complex. The effective solutions for the environmental problems and economic and environmental security of the country depend on setting important priorities in the environmental policy of the Ukrainian enterprises. One of these priorities is the greening of production processes. This priority is relevant in view of the need to preserve the environment and the European aspirations of Ukraine in compliance with the principles of sustainable economic development.

Ecologization (greening) is a process of continuous and coherent development and implementation of new industrial technological processes and management measures aimed at increasing the role of environmental priorities in production, improving the environmental education of executives, introducing environmental innovations into production, and implementing ecological modernization of production.

Economic and environmental priorities should have the same value for the executives when making decisions on the ecologization of business, production and technology. The economic growth in Ukraine, industrial or enterprise development is impossible without the environmental priorities, because ignoring them and providing significant benefits to economic priorities will have negative consequences.

2. LITERATURE REVIEW

Much attention in the scientific studies has been paid to the ecology, legal principles of natural resources policy in Ukraine, environmental management and environmental principles, economic evaluation of natural resources, ecological risks, organizational and economic mechanisms to ensure the natural resources management in the new economic conditions.

The issues of greening the economy, environmental responsibility and environmental assessment of production have been described in the studies of Ukrainian scientists such as B. Danylyshyn, L. Pashkevych, V. Tarasova, I. Kovalyevska, A. Voytsytskyy, V. Dubrovskyy, V. Boholyubov.

Some authors [1, p. 16-26], [3, p. 12-20] focus on recycling and waste management, on the basic greening manufacturing principles of the enterprise, as well as on monitoring of waste indicators on greening production, and its consequences for the enterprise.

The environmental issues and environmentally friendly production have been discussed in the other studies [2, p. 42-50]. These authors have found the ways to converge different environmental metrics into single integrated indicator, to create innovative methods of economy transformation on the basis of greening in the product life cycle, to improve the actual environmental legislation of Ukraine [6, p. 115-120].

The scientific studies [7, p. 576-579], [8, p. 113-119] are focusing on: formulation of the common environmental policy of the EU member states and its institutional and legal framework as the most important preconditions for greening the economy; the main stages of a common EU environmental policy, and the areas of cooperation between Ukraine and the EU in addressing environmental problems of economic development.

The difficult ecological situation in Ukraine also lies in the fact that the greening of enterprises is mostly fragmentary and formal. It caused by lack of effective legislation of environmentally responsible business. Greening of production in many cases affects some large enterprises in Ukraine while according to the principles of sustainable development the greening should be compulsory for all businesses regardless of size or activity.

The aim of this study is to examine the ecologization issues both at the national and enterprise levels, develop and single out the major metrics that can be used to track ecologization performance at the enterprise level, explore the relationship between environmental costs and gross regional income, environmental charges, and environmental pollution fines, and indicate the importance of organizational and economic mechanisms to ensure the ecologization.

3. RESULTS AND DISCUSSION

The environmental problems cause significant economic damage to national economies of almost all countries. According to rough estimates, the annual environmental losses are 0,4-2% of gross domestic product in developed countries, 3-5% of GDP in Eastern Europe, more than 15% of GDP in Ukraine. The increasing trend in strengthening adverse environmental impacts in Ukraine caused by high energy and material consumption, high production wastes, outdated equipment at the enterprise level and the large-scale environmental degradation.

Key environmental indicators in Ukraine for the period 2012-2015 are shown in the table 1. Air pollutants and dioxin emissions by stationary and mobile sources for 2015 compared 2014 reduced by 33,7%. This situation has been caused by the decrease in number of industrial enterprises and thereby the decrease in emissions of industrial wastes. Statistics on wastes of the I-IV grade of hazard for the period 2012-2015 demonstrates their reduction by 30,7%; and wastes of the I-IV grade of hazard for 2015 compared to 2014 decreased by 12,04%. Generation of wastes of the I-III grades of hazard decreased by more than half for the period 2012-2015. The analysis of statistical data on disposal of wastes of the I-IV grade of hazard for the period 2012-2015 shows their reduction by 35,5%. The wastes disposal of the I-IV grade of hazard decreased by 15,4% for 2015 compared to 2014 as well. As a result, the wastes disposal of the I-III grade of hazard for the period 2012-2015 also decreased by 41,9%.

Table 1

Key environmental indicators in Ukraine for the period 2012-2015

Years Indicators	2012	2013	2014	2015	Absolute increase (+/-)	Growth rate, %
1. Air pollutants and dioxin emissions, million tons	6,821	6,719	5,346	4,521	-2,3	66,3
2. Wastes of the I-IV grade of hazard, million tons, including:	450,73	448,18	355	312,27	-138,46	69,3
- wastes of the I-III grade of hazard	1,368	0,919	0,740	0,587	-781	42,9

3. Wastes disposal of the I-IV grade of hazard, million tons, including:	143,454	147,118	109,28	92,464	-50,99	64,5
- wastes of the I-III grade of hazard	0,541	0,439	0,327	0,315	0,226	58,1
4. Costs on environmental protection and rational use of natural resources, million UAH	24591,1	21925,6	19513,8	18733,2	-5857,9	76,2

There is a negative tendency in the costs on environmental protection and rational use of natural resources in Ukraine. The amount of such costs during the period 2012-2015 decreased by 23,8%, as well as in 2015 compared to 2014 by 4%. This situation is caused by several factors concerning to the lack of financial resources for investment into environmental measures, insufficient budget funds for investment into industrial sector that have a great impact on reproduction and protection of natural resources, lack of legal distinction between powers and responsibilities of government and administration, which leads to inconsistencies decisions on resource use and environmental safety.

The environmental situation can be improved by setting priorities in the environmental and economic policies and using greening mechanisms that should be mandatory for all businesses regardless of size or activity. The enterprise' ecologization will result in reduction of harmful emissions into the air, water pollution, destruction and contamination of land, heat, noise, electromagnetic and other effects. The enterprise can achieve these results by using two directions of ecologization: (1) comprehensive greening industrial production through the use of clean energy resources, wastewater treatment technology and recycling waste; (2) environmental management system based on new priorities in developing, implementing and maintaining policy for environmental protection.

The enterprises should focus on the environmental and economic metrics while making decisions on implementation of the ecologization measures. These

metrics can be divided into two groups: (1) metrics used to measure the efficiency of greening production technology; (2) metrics used to measure the ecologo-economic efficiency of enterprise ecologization (fig. 1).

The metrics related to the efficiency of greening production technology include the indicators that identify the environmental impact of manufacturing and the indicators that reflect the level of wastes in a manufacturing. These metrics include the following: 1) the level of water pollution is defined as the ratio of the actual volume of waste-water discharge to the permissible volume of waste-water discharge; 2) the level of land pollution is defined as the ratio of the actual amount of soil pollutants to the permissible amount of soil pollutants; 3) the level of air pollution is defined as the ratio of the actual amount of harmful emissions into the air to the permissible emission of hazardous substances into the air; 4) the water consumption efficiency is defined as the ratio of the value of water consumed in manufacturing to the volume of manufactured products; 5) the energy consumption efficiency is defined as the ratio of the cost of energy consumed in manufacturing to the volume of manufactured products; 6) the raw materials consumption efficiency is defined as the ratio of the cost of raw materials consumed in manufacturing to the volume of manufactured products; 7) the waste recycling efficiency is defined as the ratio of recycled wastes to the volume of generated waste in manufacturing; 8) the waste-to-output ratio is defined as the ratio of the volume of generated waste in manufacturing to the actual output; 9) the resource utilization ratio is defined as the ratio of resources used in manufacturing to the volume of generated waste in manufacturing; 10) the ratio of waste return in repetitive manufacturing is defined by dividing the waste returned in manufacturing by the total production wastes.

The metrics used to measure the ecologo-economic efficiency of enterprise ecologization should include: 1) the ecologization cost efficiency is defined as the ratio of expenditures for the purchase of environmentally friendly technologies to the total costs of the enterprise; 2) the cost-effectiveness of environmental programs is determined by dividing the costs on environmental programs and environmental measures to the total costs of the enterprise; 3) the ecologo-economic efficiency is defined as the ratio of capital (or current) ecologization costs to the total profit of the enterprise; 4) the share of economic losses due to pollution is defined as the ratio of pollution charges to the total profit of the enterprise; 5) the share of economic losses

due to violations of environmental laws is defined as the ratio of the amount of fines for environmental offences to the total profit of the enterprise.

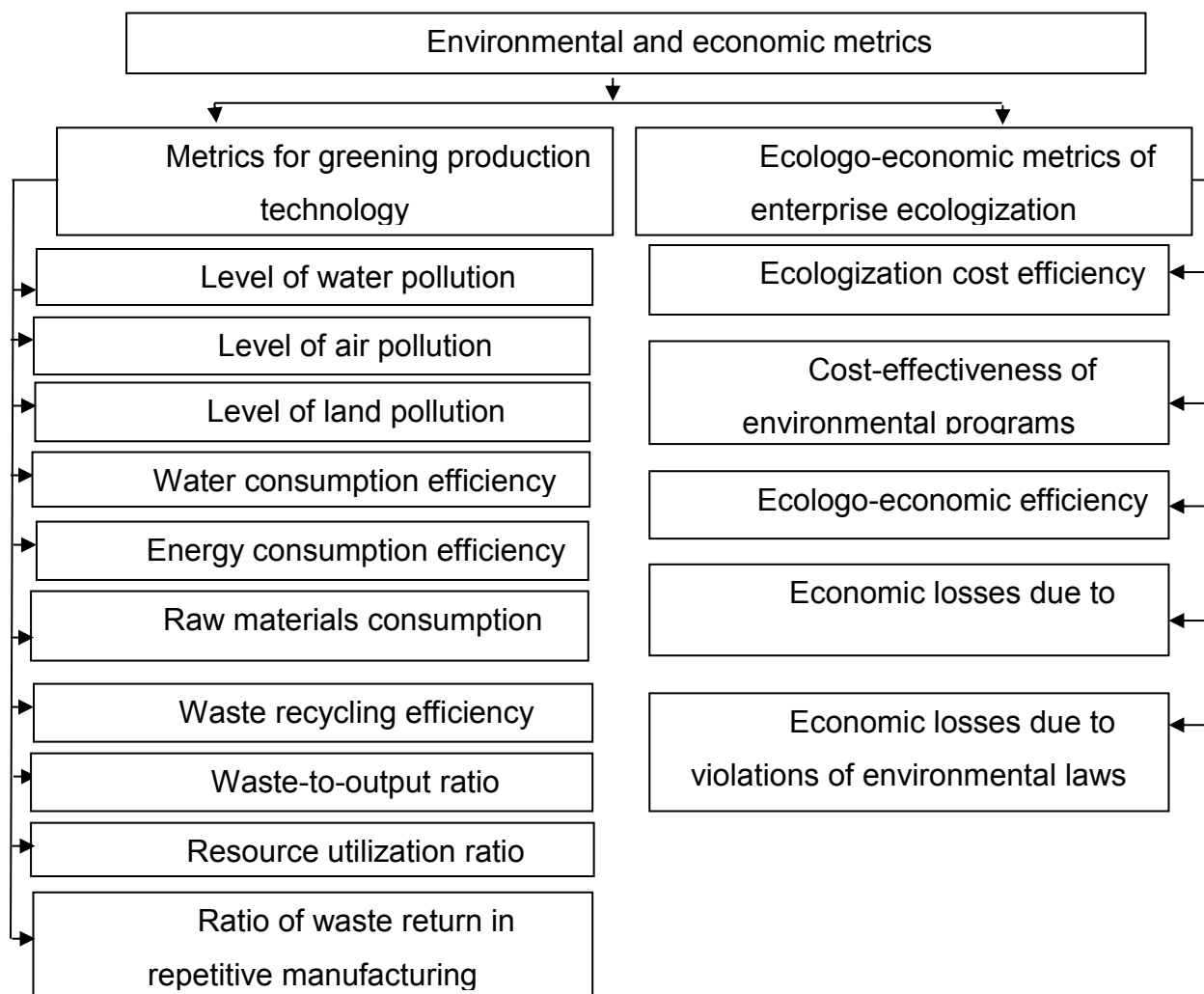


Fig. 1. The environmental and economic metrics of enterprise ecologization

Naturally, considerable attention in the ecologization of enterprise should be given to the environmental costs and the enterprise income because the value of charges for environmental pollution and penalties for environmental offences has a great impact on the enterprise performance.

An examination of the relationship between environmental costs and gross regional income, environmental charges, and environmental pollution fines will be done with application the regression model:

$$Y_t = b_0 + b_1 \cdot X_{1t} + b_2 \cdot X_{2t} + b_3 \cdot X_{3t}, \quad (1)$$

where Y_t – is the environmental costs; X_{1t} – is the gross regional income; X_{2t} – are the amount of environmental charges; X_{3t} – the amount of environmental pollution fines; b_0, b_1, b_2, b_3 – are the regression coefficients.

The practical application of regression model to predict a dependent variable from a number of independent variables is shown by using statistics of Ternopil region (Table 2).

The appropriate computations have been done and we have obtained the linear model that examines the relationship between environmental costs and gross regional income, environmental charges, and environmental pollution fines:

$$Y_t = -59,936 + 0,0016 \cdot X_{1t} - 11,056 \cdot X_{2t} + 421,79 \cdot X_{3t}$$

Table 2**Input data**

Indicators	Years			
	2013	2014	2015	2016
Environmental costs, million UAH	23,65	29,36	37,88	36,26
Gross regional income, million UAH	8726,8	9765,4	9826,9	8439,5
Environmental charges, million UAH	0,308	0,68	0,727	0,998
Environmental pollution fines, million UAH	0,145	0,161	0,182	0,195

This regression model has been used to predict the amount of environmental costs for the next year (2017). The computation results are given in the table 3.

Table 3**The computation results**

Indicators	Forecast equation	Forecast (2017), million UAH
Environmental costs, million UAH	$Y_t = -59,936 + 0,0016 \cdot X_{1t} - 11,056 \cdot X_{2t} + 421,79 \cdot X_{3t}$	31,689
Gross regional income, million UAH	$X_{1t} = -80,04 \cdot t + 9389,8$	8989,6

Environmental charges, million UAH	$X_{2t} = 0,2117 \cdot t + 0,149$	1,208
Environmental pollution fines, million UAH	$X_{3t} = 0,0017 \cdot t + 0,128$	0,214

Conclusion is that the decrease in gross regional income and the increase in the environmental charges and environmental pollution fines have had an impact on the environmental costs forecast for 2017. The environmental costs forecast for 2017 will be 31,689 million UAH, that is lower than for previous year.

The improvements in ecologo-economic effectiveness of enterprise ecologization should be based on the effective economic mechanism for enterprise ecologization through the use of enforcement, incentive and marketing mechanisms and measures.

The enforcement mechanisms cover the environmental taxes and fees, fines and penalties, sanctions and prohibitions, environmental standardization and licensing that are coercive in general and aimed at strengthening state control over compliance with environmental laws and regulations as well as environmental safety.

Incentive mechanisms cover the preferential taxation and environmental lending, grants and funding, subsidies and awards, public investment in natural environment research and environmental infrastructure.

Marketing mechanisms cover the creation of markets for natural resources and environmentally friendly products or environmental services, restructuring of "marketing value chain" which refers to production, sales and consumption, ecological expertise (public, commercial), emissions trading, environmental excise tax and environmental insurance and promotion.

CONCLUSIONS

The major factors affecting the ecologization of enterprises include the concept of sustainable development, an increase in demand for environmentally friendly products, the environmental awareness and customer culture, the development of environmentally friendly and resource-saving technologies and the international impact according to Ukraine-European Union Association Agreement.

It was found out that the environmental situation can be improved by setting priorities in the environmental and economic policies and using greening mechanism that should be mandatory for all businesses regardless of size or activity.

The enterprises should focus on the environmental and economic metrics while making decisions on implementation of the ecologization measures. These environmental and economic metrics should be considered in the business strategy for sustainable development, for the optimal combination of economic and environmental objectives by identifying weaknesses and diminishing threats, using internal strengths and estimating external opportunities to ensure efficient activity.

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Ways of radical change of the image of tax and customs officers

Noticeable improvements have been made in tax system in recent years. Great work has been undertaken to improve the quality of service of taxpayers and to increase the services rendered. Significant achievements have been recorded especially with respect to introduction of modern high technologies in customs procedures, training of qualified staff, as well as improvement of the RA customs code and compliance with international standards [7].

Human resources policy has its unique role in the development of tax sector, improvement of administrative instruments and increase of efficiency of the system. Along with implementation of legislative reforms and application of advanced technologies for increase of confidence in tax system and expansion of capabilities, the role of a professional tax officer is of high importance. In terms of efficiency of tax administration if the organizational structure is considered to be the skeleton of the system, human resources are the driving force of this skeleton. Therefore, development of knowledge of the officers is a top priority objective of tax and customs system, for the achievement of which human resources management policy and comprehensive strategy shall be established that will comprise the key component of the primary strategy of the tax authorities activities. Here the question arises as to whether tax authorities provide various ongoing training courses in line with international standards, instructional training materials, opportunities to exchange experience with foreign countries and whether the system has qualified lecturers with necessary experience, etc.

The radical change of the image of tax and customs officers is viewed from two aspects:

1. Development of professional skills and knowledge;
2. Maintenance of code of conduct.

The main form of development of professional knowledge is training. Training of staff it is not just a one-time training, but also a planned continuing professional training, through upgrading of knowledge and awareness, development of skills, which is the main condition for achievement of the objectives set for tax officers. In many cases training courses in public sector are set by the budget and regulated by relevant laws (laws on internal audit, tax and customs services). Around the world, leading organizations of both public and private sectors make huge investments in professional development of their staff. Professional activities of tax and customs officers assume availability of knowledge and skills for a number of professions, including accounting, tax system, law and modern information technologies [1].

Aiming to ensure the high efficiency of achievement of general objectives, in addition to knowledge, communication skills and ability to integrate into teamwork are required. Time challenges constantly change the objectives set for tax system, which in their turn change the requirements specified for professional skills of the officers, therefore, trainings should be of continuing nature. Human resources policy of tax and customs system is targeted at the following three areas: training of new professionals, continuing training of experienced officers and provision of opportunities for career growth. In order to improve the behavior of tax and customs officers training needs per sectors and positions should be thoroughly analyzed and long-term priorities should be set. Consequently, training of tax and customs should be organized both through educational institutions and professional training institutions operating adjunct to the state authorities, ensuring close relationship between the institutions generating supply and dictating demand. Considering the above the State Revenue Committee (SRC) of Armenia cooperates with higher educational institutions. For this purpose, master's educational program with specialization in tax and customs spheres is implemented in the State Economic University of Armenia.

Equal training opportunities, career growth in line with relevant knowledge and experience cause the officers to strive for deepening their knowledge and developing skills. Since Armenia is a member of several international associations and is a party to various agreements, tax and customs officers should complete appropriate trainings corresponding to international standards, receive sufficient information and technical support, training strategy should be developed for them and other mechanisms of professional development should be applied and they should have an

opportunity to participate in international training programs. In international practice there exist various forms and methods of trainings, such as collective, group, individual, classroom and distance trainings, trainings by electronic media, by educational and didactic materials, online courses, etc. Each inexperienced employee with various professions (accounting, audit, tax system, law, information technologies) must overcome the barrier of integration into the team and teamwork, possession the required skills and gaining the experience, the duration and results of which are individual for each of them. The Internal Revenue Service of America, for effective integration of new employees, organizes induction training course at the workplace and includes in working teams both experienced and less experienced employees.

Tax and customs system is a multifunctional structure, therefore, in order to ensure unified application of the legislation, professional training of staff should be organized by means of guidelines, workshop discussions, qualification trainings and other instruments, which should be attended by the employees of territorial and regional tax and customs authorities. The organizational structure of tax and customs system has been established based on functional principle, however it comprises also subdivisions for types of taxes, and for proper performance of these functions responsible employees are required to possess relevant knowledge about the functions, appropriate skills and complete trainings. Training programs need to distinguished:

- based on functions, specialized and general topics;
- based on management level (managerial staff, lower and medium level managers).

Trainings on general topics should be mandatory for all tax and customs officers, and should include the categories listed below:

- economic;
- civil;
- legal;
- moral and psychological, code of conduct;
- social and political, etc. [1].

For example, the internal auditors are required to possess proficient knowledge on internal audit, legislation related to tax and public finance management

and internal control system, to have qualification of internal auditor and to complete annual mandatory trainings on specialized and other general topics.

Individual training programs should be defined for each level of management, where clear emphasis should be made on management issues, particularly on setting, review and timely performance of the task, monitoring, accountability and development of the employees' knowledge. Training of managerial staff is also important due to the fact that managers establish necessary procedures for performance supervision, especially when it refers to their own staff. In addition to the responsibility for proper performance of activities and accountability at different levels, they are involved in the certification process, they assess the performance results of officers and determine the need for training courses and their directors. In general, along with specialized trainings the managerial staff should attend various training courses on development of leadership skills.

The main steps of efficient training are:

1. Assessment of training needs;
2. Preparation of training plan, programs;
3. Development and organization of training;
4. Assessment of training efficiency.

Training results include:

1. Development of knowledge of the officers;
2. Motivation of the officers;
3. Proper use of capabilities of the officers [6, c. 350].

System of regular training of tax officers has been introduced in tax system of Armenia. In the SRC tax and customs officers training function is performed by the educational center operating under subordination of the committee. The mission of the center is the training of tax and customs officers, taxpayers, development of professional knowledge and technical skills, cooperation with international bodies, preparation and provision of information and analytical materials.

Training courses organized for tax and customs officers in the center are of more specialized nature and cover the most important issues of tax and customs legislation, particularly, customs legislation and administration, introduction of external audit tools in customs audit, electronic management system, tax legislation, tax inspections and supervision. Topics of trainings are proposed by tax and customs services based on current requirements.

Trainings on various topics are set based on functions. These are:

1. Tax service

- training of the officers performing legal function;
- training of the officers performing taxpayers service function;
- training of the officers performing current supervision and inspections function;
- training of the officers performing operative investigation function.

2. Customs service

- training of the officers of collection coordination and accounting departments;
- training of the officers of customs tariffs and customs registration departments;
- training of the officers performing functions of pre-clearance control and fight against smuggling [8].

Upon completion of trainings computer-based test shall be passed. The employees with positive results (80 points and higher) have an opportunity to pass paper-based certification.

For comprehensive solution of practical issues arising during implementation of tax system reforms and in order to have human resources who satisfy international standards, around 1000 tax and customs officers should be trained by annual working and educational plan. Aiming to raise awareness of taxpayers and to increase tax revenue training courses for taxpayers are also organized in the center [8].

The rapid development of internet and web technologies enables a faster exchange of information, as well as cooperation and interaction among the users. In recent years, up-to-date becomes the distance learning via internet. In 2015, distance learning pilot system was introduced in the training center and educational processes are organized online, without taking off the employees from their work and workplace. Distance learning, being flexible, mass scale and effective, enables to organize workshops, discussions and trainings on challenging issues in short period of time.

In 2012-2013 around 8000 tax and customs officers were trained in the center and in 2016, 90 groups included 1974 participants.

Table 1. Information on training of employees of tax and customs authorities [3]

Indicators	2014	2015	2016
Tax authorities			
Number of tax officers	1913	1877	1674
Number of trained tax officers	1455	1539	1428
Number of certified officers	141	503	92
Number of officers who received grade or special degree	290	278	168
Number of recruitments conducted	4	5	1
Number of employees hired as a result of recruitment	80	166	25
Customs authorities			
Number of customs officers	791	814	739
Number of trained customs officers	550	583	544
Number of certified officers	12	-	-
Number of officers who received special degree	86	144	45
Number of recruitments conducted	5	1	1
Number of employees hired as a result of recruitment	18	1	64

In 2016, 85% of tax officers and 74% of customs officers were trained.

Staff training is also conducted in international training centers of international organizations, which contributes to modernization of tax and customs system.

In the system unified procedures are developed in the head office and afterwards are assigned to tax inspectorates. Therefore, for implementation of modern control mechanism over their performance and for ensuring unified business behavior, in addition to trainings, discussions on behavior, instruments and legislative changes are organized in the form of workshop discussions.

One of the pillars of the functional organizational structure of tax system is the staff performance assessment system, which should be based not only on the taxes collected, but also on the efficiency and other functional indicators, resulting in employees seeking to achieve higher results. Based on the performance assessment results needs for training and its directions are determined.

Trainings of tax and customs officers are regulated by relevant legislative acts, based on which training educational programs, certification performance and evaluation procedures are set.

The certification of tax officers is carried out once every 3 years. Those tax officers who get 80 or higher points based on total training results within the period following the previous certification and positive efficiency report are subject to paper-based certification. Paper-based certification is performed based on the efficiency report, by an interview [4]. The efficiency report is provided by the immediate supervisor, taking into account the efficiency of the employee's performance. Training of tax and customs officers represents additional professional training with duration of 80 academic hours (from 2016) organized by tax and customs authorities. After training participants' advancement assessment is performed by 100-point scale, as follows:

- score of 95 (inclusive) and higher is assessed as excellent advancement;
- score 90-95 is assessed as good advancement;
- score 80-90 is assessed as satisfactory advancement;
- score of lower than 80 is assessed as satisfactory advancement [5].

Each year at least one-third of tax officers is subject to mandatory training, which is arranged for the improvement of specific requirements set for the rights and obligations specified by the job description for the given position of the service and for possession of professional knowledge and operational skills. The officers' training costs are covered by the funds of the service and the state budget. In addition to mandatory training prescribed by the law, the officers can attend various courses for personal development, which may or may not be aimed at improving the quality of performance of professional duties.

Along with the measures of the State Revenue Committee targeted at the effective staff management, the maintenance of code of conduct by the officers is also in focus. Rules that guide conduct of an officer of European tax system assume:

- professionalism;
- objectivity;
- honesty;
- integrity;
- fairness;

- independence, etc. [2].

According to European standards, tax authorities are obliged to ensure the above listed requirements of internal and external behavior of its employees. The SRC, wishing to ensure and develop communication and interaction skills of its staff resulting from professional behavior, has established a code of conduct for tax and customs officers, the maintenance of which is mandatory both on and off duty.

The code of conduct of tax and customs officers represents norms based on generally accepted principles of morality, which regulate behavior, conduct and relationship peculiarities of a tax officer in accordance with the tax and customs service procedures.

The code of conduct has been established for the purpose of guiding the behavior of tax officers.

Tax and customs officer is obliged to:

- demonstrate unconditional loyalty and commitment to his/her country and work;
- refrain from actions that may hinder the activities of the state body or undermine and discredit it;
- be guided by moral norms based on principles of humanity, fairness and honesty;
- respect human dignity;
- be impartial, objective, independent, discreet and lead by example;
- avoid undue emphasizing of his/her position;
- be balanced, disciplined and truthful;
- be polite with taxpayers, partners, subordinates and management;
- avoid any kind of protectionism, mediation, assistance as a result of which compliance with requirements of tax laws can be obstructed, to use only moral actions for achievement of goals during the service;
- not to fall into a position of dependence due to his/her behavior and be independent;
- maintain unconditionally the confidentiality of official information aiming to ensure the secure operation of customs service [9,10].

The immediate supervisor of the tax officer, following the rules of professional conduct, undertakes measures to the extent possible to ensure observance of these

rules by his/her subordinates. In case of their violations or improper maintenance, relevant penal measures will be applied. In 2015-2016 for inappropriate performance of duties and improper maintenance of code of conduct, tax and customs were subjected to disciplinary action.

Table 2. Number of officers subjected to disciplinary action of the SRC [3]

Indicators	2015	2016
Customs officers		
Warning	5	3
Strong warning	4	-
Tax officers		
Verbal warning	74	40
Written warning	49	17
Downgrading	1	-

Effective tax administration requires not only highly qualified, but also polite tax and customs officers, who will strictly maintain the rules of professional conduct and ensure proper compliance with moral and psychological norms during their service.

The above stated studies and researches allow drawing certain conclusions and providing recommendations as presented below:

1. Thus, the solution of issues faced by the economy attaches importance to radical change of the image of tax and customs officers and enhancement of professional qualification, which can be achieved through quality education and continuing professional development. Development of staff knowledge and analytical capabilities will bring new quality and approach in human resources policy and training processes of the SRC. Only high professional quality of staff can ensure a high level customer service, which in its turn will serve as a precondition for improving tax culture in Armenia. Within the scope of tax and customs reforms human resources management strategy and policy are set, which will contribute to the achievement of goals of tax authorities and development of staff members through clearly designed trainings and professional development.

2. The main ways of radical change of the image of tax and customs officers are as follows:

2.1. Management of tax system personnel should include complex measures of staff recruitment, proper allocation, training and motivation, and should be also

targeted at training of candidates pool, which should guarantee the availability of human resources for the system.

2.2. The key condition for ensuring high performance indicators and development of professional knowledge is the existence of incentives (motivation) system. Incentives system must be consistent with the achievement of the objectives of tax system. The right combination of payment and incentives systems will contribute to the social security of the officer, which will allow him/her to be independent when performing professional duties. Tax and customs officers comprising a part of the society, by their lifestyle and behavior help on formation of the opinion on the system.

2.3. Mandatory trainings prescribed by the law are financed by the state budget, therefore, the effective and purposeful management of public finance requires the training costs to be targeted by contributing to the increase of efficiency of tax administration. Consequently, two approaches for the assessment of training efficiency (cost-outcome) should be applied: efficiency analysis of the organization that conducts training and assessment of qualitative and quantitative changes in the performance of duties by the officers after training.

2.4. The key factor of efficiency of tax administration is the availability of professional, courteous and knowledgeable staff. For this purpose, tax and customs officers gain new qualitative skills through trainings (local and international) corresponding to international standards. To avoid wasted efforts and resources, the system should undertake measures for the reduction of staff outflow. Thus, figures presented in human resources management section of 2016 report of tax and customs system show that human resources outflow from the system is quite high, that is 203 employees, which is to some extent conditional upon optimization of the structure of tax inspectorates that implies reduction of number of tax inspectorates and establishment of service centers. Instead of hiring new employees for the system, it is reasonable to arrange rotation of the experienced staff through trainings.

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Main approaches to the improvement of organizational structure of tax and customs authorities

Abstract: The mission of tax and customs authorities is to ensure economic security, control the compliance with tax legislation requirements, and assure equal development of taxpayers service and tax control functions. These objectives can be achieved by continuous improvement of tax administration and introduction of an optimal organizational structure. Of four generally accepted types of organizational structure the functional organizational structure is the most commonly used one. However, in many cases, in the organizational structure in parallel to the subdivisions regulating established regulatory and operational functions, the subdivisions maintaining accounting of and control over indirect taxes are included, and tax authorities controlling the activities of large taxpayers are separated. The optimal organizational structure of tax system ensures strong grounds for enforcement and control of tax system legislation.

Keywords: tax administration, organizational structure, efficiency, regulatory and operational functions, taxpayers segment, large taxpayers, types of taxes.

During the years of independence in Armenia the improvement process of tax policy and administration was always focused on the development of tax control mechanisms and information technology infrastructure, expansion of services rendered to taxpayers, improvement of customs processes and optimization of organizational structures of tax and customs system. Particularly, for the improvement of quality of the services rendered an electronic reporting system and simplified procedure of registration of taxpayers have been introduced, call centers and taxpayers service centers have been established, and other measures have been undertaken. However, in parallel to the above stated reforms, in terms of improvement of efficiency of tax and customs systems specific importance is

attached to tax and customs legislation, state revenue policy and risk assessment systems, as well as to the improvement of organizational structures.

The state is a principal institute of political system, and the form of statehood represents the entirety of the form of government, form of state structure and political regime. In accordance with constitutional law, states are unitary, federal or federated by their form of government. Unitary states, as a rule, are established on the mono-ethnic territories, where single constitution and legislation are effective and legislative, executive and judicial powers are held by a single supreme authority. Unitary states are classified into centralized and decentralized states. The example of a centralized unitary state is the Republic of Armenia and as an example of a decentralized state France and Georgia can serve. In unitary states tax and customs system is governed from one center by unified constitution, like for example in France, Italy, Great Britain, and in many cases nationwide tax code is effective. In 2016 Armenia also adopted tax code, which will come into force on 1 January 2018.

Federal state as opposed to the unitary state has two supreme levels of government. Federation entities have the right to adopt regional laws. In such countries as the USA, Germany, Australia, Sweden the tax system is composed of several levels, central and regional (states, provinces, etc.). The basis for the tax system unity is the commonly applied unified legislation.

Within the state government system tax and customs authorities can act as:

- a unified semi-autonomous body, which represents such type of an organizational structure in which all functions are centralized in one body and the head, as a rule, is accountable to the Minister of Finance. This type of organizational structure is chosen by Australia, Denmark, Japan, Ireland. Especially in Japan the tax administration function is performed by the National Tax Agency subordinated to the Ministry of Finance and comprised the head office, 11 territorial offices and 524 territorial inspectorates [9].

- a unified semi-autonomous body that is accountable to the management board. The board is composed of the representatives of legislative authorities, tax consultants, lawyers, qualified accountants. The management board authorities encompass additional supervision, assessment of performance efficiency of tax and customs authorities, development of further strategy. The board reports directly to the head of the supreme body, primarily the Minister of Finance. This type of

organizational structure of tax system is chosen by the USA, Canada and Great Britain.

- a unified tax subdivision (service), which operates under the supervision of the Ministry of Finance. Tax administration function is performed by the tax service subdivision and other administrative functions (human resources policy, supply logistics, information technologies, finance, etc.) are carried out by the relevant subdivisions of the Ministry of Finance. This model of organizational structure is applied in France, Switzerland.

- allocation of tax administration functions between the different subdivisions. The structure of tax system implies allocation of tax administration functions between several ministries, for example in Germany tax administration function is performed by the Federal Tax Service subordinated to the Ministry of Finance. In addition, certain tax functions are allocated between other institutions of federal government, for example some functions are carried out by the Alcoholic Beverage Production and Sale Control Federal Service. This model of organizational structure is used in Belgium, Greece, Portugal [6].

The key objectives of tax and customs authorities are to ensure economic security and protection of economic interests, control compliance with tax legislation requirements and assure equal development of taxpayers service and tax control functions through tax system. These key objectives can be achieved by constant improvement of tax administration the essential areas of which are the proper allocation of functions and establishment of the optimal organizational structure.

Tax administration represents actions performed by tax authorities in accordance with legislation aimed at ensuring the widespread and accurate application of tax legislation and achievement of the objectives of tax authorities.

The mission of tax administration should encompass the following functions:

1. improvement of quality of the services rendered to taxpayers, provision of necessary support and information;
2. restructuring of main business processes of tax authorities;
3. introduction of modern mechanisms of tax control;
4. effective management of human resources, improvement of internal control mechanisms;
5. prevention of tax violations and detection of evaders;
6. increase of efficiency of the fight against shadow economy;

7. strengthening of tax discipline, etc.

When carrying out its mission tax and customs system encounters functional, human resources and structural issues, for the solution of which optimization of functions, establishment of effective organizational structure and training of officers are required.

One of the key issues of today's tax administration is the establishment of effective organizational structure of tax and customs system. Why the role of organizational structure is so important for the efficiency of tax administration? In recent years both in public and private sectors area of focus is the development of an optimal organizational structure, since the accountability, responsibility, transparency and efficiency of the systems activities in the majority of cases are conditional upon organizational structure, for example as much the legislative body is powerful and well-established, to that extent the control mechanism will be addressing and effective and to that extent the body will show flexibility in solving the problems of modern management. Government is in search of ways of improvement of operating results with the aim of enhancement the accountability and transparency of the system. The organizational structure of tax system is the key to these efforts and therefore is always subject to improvement [9].

When designing the organizational structure a number of factors is considered, particularly:

- types of taxes – value added tax, profit tax, income tax, excise tax, etc.;
- functions – collection of taxes, service of taxpayers, control, audit, etc.;
- types of taxpayers – large, medium and small taxpayers.

In practice, for organizational structure of tax administration the following four approaches are applied:

1. functional organizational structure (principles of a function-based);
2. product organizational structure, per types of taxes;
3. combined organizational structure;
4. organizational structure per taxpayers segments [5].

Functional organizational structure is based on a commonly established regulatory and operational functions that directly relate to taxpayers. Generally, this type of organizational structure is characterized by a highly organized heads of subdivisions who define the orientation of policy and programs. The structure

comprises different organizational units, which are managed by the officers accountable to the direct superior of the institution.

Tax administration functions are classified as follows:

- regulatory and operational;
- primary and secondary.

Regulatory functions are applied for the achievement of the primary goal of tax administration, that is for the solution of legislative issues and for ensuring high efficiency of operational system. The introduction of necessary methods and administrative procedures allows these functions to ensure enforcement and interpretation of regulatory acts and tax legislation.

Efficient operational system creates grounds for achievement of the next key goal of tax administration that implies raising maximum amount of tax revenue at the least cost.

Operational functions relate directly to tax collection. These functions include registration and accounting of taxpayers, current inspections and controls.

Primary functions of tax system comprise registration and accounting of taxpayers, current tax control and inspection, which help tax authorities to possess the updated information about the activities of registered taxpayers.

Secondary functions contribute to the performance of primary functions. These are as follows:

- **Legal function** ensures accurate application of regulatory acts by tax authorities and taxpayers;

- **Human resources management** is one of the key functions of every organization. Human resources management is implemented by the legislation regulating relations between an employer and employee (labor code, laws on tax and customs services, etc.). Among the priorities of tax system are the education and continuous training of personnel.

- A subdivision that performs **audit and internal control function** is responsible for the internal audit of the institution and its units, for the assessment and analysis of management process of the risks existing in tax system and for provision of recommendations for the solution of the issues identified. At the same time, performance of tax system subdivisions and staff is assessed aiming to reveal the risks affecting the goals of tax system [13].

- **Function ensuring taxpayers awareness** has its unique place in tax acculturation process. Relevant subdivisions operating in tax system are responsible for provision of timely and relevant information and support to taxpayers with respect to tax legislation.

- Subdivisions that perform **accounting, finance functions** set and allocate the budget of the institution and its subordinated units, maintain the accounting and prepare reports.

- **Information technology functions.** Given today's requirements for introduction of advanced technologies in tax and customs systems, the function supports the upgrading of the system, carries out programming, ensures technical maintenance of computer equipment and various technological applications [6].

Depending on the size of tax and customs system, the secondary functions can be combined or expanded.

As a result of application of functional organizational structure the activities of tax system become more specialized and the control becomes more effective, therefore the tendency of large-scale application of this type of organizational structure is observed in many countries. Bulgaria, Hungary, India, Canada, the Netherlands, Turkey, Finland and other countries use functional organizational structure in their tax systems.

In Canada, the functional organizational structure is set for the central office of the revenue agency. For the performance of these functions the subdivisions responsible for the appeal, provision of tax privileges, accounting, inspections, risk management, audit, relations with taxpayers and arrears and legislation analysis have been established. Thus, the functional organizational structure is based on the following two essential principles:

1. The structure is shaped based on the established policy/mission and control is performed by the heads of relevant institutions;

2. Policy should be set based on functions – service, registration, data processing, collections, audit, etc. When establishing the functions the peculiarities of state government system, generally accepted approaches are considered aiming to ensure the achievement of goals set both for the system and economy [3].

Product organizational structure has been developed long ago and until recently has been considered as the most widely used. The organizational structure by types of taxes applied in the body implementing tax administration in Great Britain

has been developed already in 1690. Up to 1950 the USA tax system was also based on this principle, however, in 1950-1998 a transition was made to functional principle, and afterwards the organizational structure was set based on four segments of taxpayers, small businesses and individual entrepreneurs, medium and large businesses, tax-exempt and government units, revenue from salaries and investments. In New Zealand and Australia the structure of tax system was also originally set based on types of taxes, afterwards it was reorganized to functional organizational structure, however, starting from the nineties of the last century the organizational structure by taxpayers segments has been applied. In particular, during the formation of organizational structure of tax system in the developed countries more often the combination of the above stated two or more types of structures is used [1]. According to product approach, in tax system the multifunctional subdivisions are set based on applicable types of taxes and operate independently of each other, which can cause inefficiency in the organizational structure, since the repetition of functions is accompanied by increase of expenses. Therefore, the countries that apply this approach mainly restructure the organizational structure of their tax systems using function-based and by taxpayers segments principles. In many countries, such as Austria, Belgium, Italy, Germany, France and Japan, the organizational structure of tax system is typically set by a combination of the above stated methods. The determination of dominance of one or another principle is quite difficult, since various diverse factors also affect the efficiency of tax system activities. For example:

- Functional organizational structure which also includes specialized subdivisions for dealing with certain types of taxes;
- Product operational structure that comprises certain operational functions, etc.

In the organizational structure of tax system by taxpayers segments, in addition to taxpayers segments the subdivisions performing standard operational functions are separated. Segments are classified based on small, medium and large economic entities. Since the major share of tax revenue is ensured by large organizations that are few in number, the separation of large taxpayers segment is applied as common approach in many countries. The activities of these taxpayers and relations with tax legislation (types of taxes, privileges) are diverse, geographically dispersed, multi-functional and, therefore, separate bodies

(inspectories) responsible for the control of large taxpayers are established under subordination of tax authorities aiming to ensure efficient supervision over their activities and mitigate the existing risks [4]. Given the modern challenges, reforms related to the improvement of tax system often deal with the improvement of the organizational structure of the system and its principles. Below is presented a sample chart of the most common organizational structure of tax system.

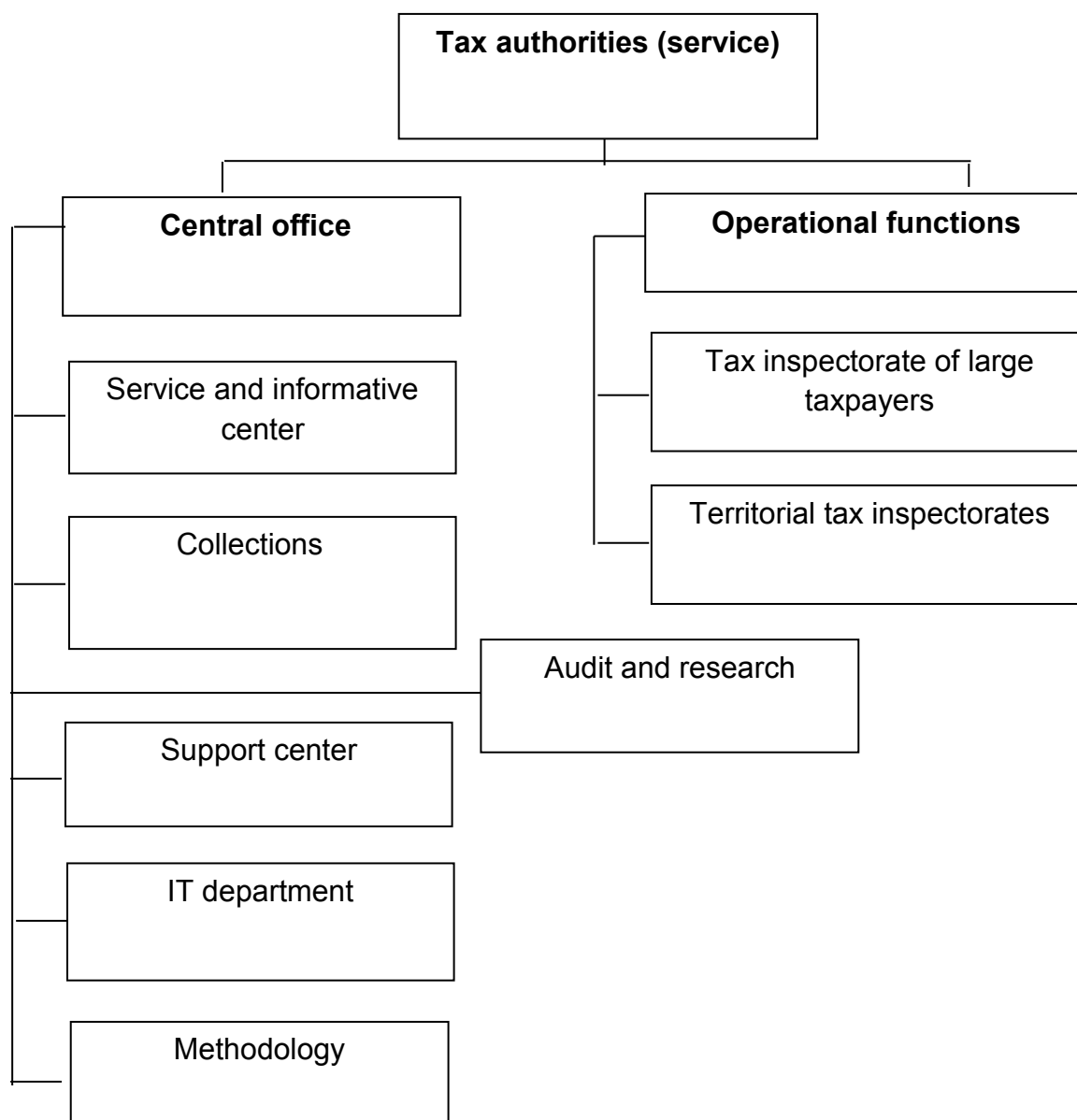


Chart 1. Sample of functional organizational structure [3]

It should be stated that in many countries the functional organizational structure is applied, however in the countries where VAT (value added tax) is

effective, in the organizational structure a subdivision responsible for this type of tax and a subdivision by taxpayers segments, namely for large taxpayers are separated. In the tax system of Armenia there operates large taxpayers tax inspectorate.

The tax system of Armenia was established in 1991 and started its activities in quite difficult conditions without own tax legislation, state budget and planning of tax revenues, and lacking logistics, building facilities, trained and qualified personnel. Passing a rather complicated way, the system had great achievements during 26 years, including the contribution to economic growth, development of legislation oriented at protection of consumers interests, establishment of a customs system corresponding to international standards, system wide application of advanced technologies, establishment of call centers and taxpayers service centers, improvement of human resources management, regulation of inspections and control, etc. Development of the taxpayers service area is a priority of the State Revenue Committee strategy. For achievement of this priority thorough structural changes are required, including improvement of quality of the services rendered, proper understanding by taxpayers of their rights, obligations and necessity of observance of tax legislation. Concurrently, increase of volume and improvement of quality of the services provided through telephone, internet, postal communication, mass media and direct contacts enable the SRC adjunct to the RA government to efficiently serve and inform greater number of taxpayers, which in its turn leads to positive perception of the SRC and its mission by the tax-paying population [10]. The activities of the Committee are regulated by the RA Laws on Tax Service, Customs Service, Customs Regulation and its represents tax and customs authority under these laws. The Committee is established, restructured and its activities are suspended by the decrees of the Republic of Armenia. In the initial phase of establishment the Committee acted as a unified semi-autonomous body, in parallel to which another supervisory structure, tax inspectorate board operated. The organizational structure of the Committee was set based on a combination principle, where the organizational structure by types of taxes prevailed. Afterwards, considering the international challenges encountered in this field and available best international practice, the Committee also made transition to the organizational structure based primarily on a functional principle, by adding the segment of large taxpayers.

Key elements of the organizational structure, namely superior tax authority, territorial tax inspectorates, specialized separated subdivisions are presented below in the form of a chart.

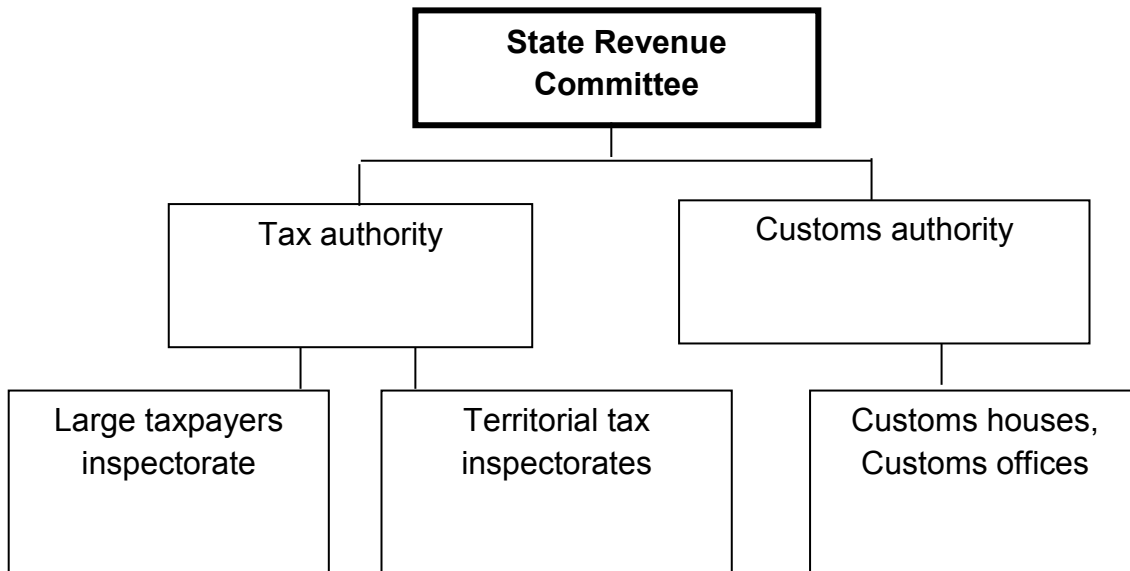


Chart 2. Elements of tax authority organizational structure

The organizational structure of the State Revenue Committee and its subordinated tax and customs authorities is established by the charter of the Committee [7]. The Committee system consists of a chairman, deputies chairman, advisers, assistants, committee staff and territorial subdivisions. The structural subdivisions of the superior body are as follows:

- Risk management and tax discipline programs department;
- Taxpayers service and tax procedures department;
- Organization and supervision department;
- Inspection organization and monitoring department;
- Internal audit department;
- Information technologies department;
- Customs control department;
- Legal department;
- Investigation department;

- Violation detection and administrative procedure implementation department;
- Operative investigation department;
- Department of fight against smuggling and double customs control;
- Internal security department;
- Staff management department;
- Financial and accounting department, etc.

As it has been already stated, in the organizational structure of the SRC of the Republic of Armenia large taxpayers' supervision authority is separated. One of the important aspects of the SRC activities is to demonstrate individualized approach to large taxpayers, which implies the strengthening of right targeted control, improvement of service quality, provision of support. The classification of organizations around the world into large, medium and small is carried out based on similar criteria that can be compound, by comprising several indicators (turnover, profit, cost of property, plant and equipment, etc.), and simple. In Armenia as large taxpayers are classified those economic entities whose annual revenue exceeds AMD 500.0 million. In parallel to the economy development the number of large taxpayers also increases. Thus, in 2010 in the large taxpayers tax inspectorate 344 economic entities were registered, in 2012 – 462, in 2015 – 514 and 617 in 2017. [12] Great attention to large taxpayers is conditioned by the fact that they ensure the major share of tax revenue of the budget, create a great number of employment positions and have a crucial role in the economy. Below are presented the classification criteria of large taxpayers of various countries (see table).

Table 1. Classification criteria of large taxpayers in various countries, 2013 [2]

Country	Classification criteria of large taxpayers
Italy	Turnover exceeds Euro 100 million
Canada	Gross income exceeds CAD 250 million
USA	Assets value exceeds USD 10 million, citizens receiving superprofit
France	Turnover (excluding VAT) or assets value exceeds Euro 400 million, related entities with 50% and more share
Japan	Capital exceeds JPY 100 million

Australia	Turnover exceeds AUD 250 million
Austria	Turnover exceeds Euro 9.68 million
Belgium	Turnover exceeds Euro 7.3 million, assets value exceeds Euro 3.65 million, number of employees 50 and more
Czech Republic	Turnover exceeds CZK 2 billion, banks and insurance companies
Finland	Turnover exceeds Euro 50 million

The table shows that in the developed countries the classification of organizations by size is based on their turnover, assets value, number of employees. The difference between the amount limits is conditioned by the peculiarities of economy of each country and its development level. As it has been already stated organizational structure of tax system of the countries presented in the table is established based on taxpayers segments.

The objective of the activities of the inspectorate is the service of large taxpayers included in the list approved by the order of the chairman of the committee, control over tax and other compulsory payments, control of enforcement and application of legislative requirements by the procedure established by the law, collection of revenue of the RA state budget controlled by tax authorities. The main functions of the inspectorate are:

- ensuring awareness of taxpayers, training, acceptance of tax reports and other services;
- control over tax payments;
- performance of tax inspections and reviews;
- provision of legal support [8].

Below is presented the organizational chart of large taxpayers tax inspectorate.

The structure of large taxpayers tax inspectorate allows to assume that the organizational structure has been set by the combination of the aforementioned methods that comprises functions and types of taxes. As of 1 January 2017 the number of employees of the State Revenue Committee was 2413, of which 1674 were tax officers. As a result of improvement of the organizational structure of the SRC, the number of tax inspectorates has been decreased from 22 to 20, and aiming to improve the service quality of taxpayers service centers have been put into operation [8]. Their number is expected to be grown significantly in the coming years,

especially in the locations where there are no the SRC tax inspectorates, intending to increase the availability of the services delivered to taxpayers. In the organizational structure of the SRC tax inspectorates two deputies head, taxpayers service center, departments of information and analysis, current supervision and tax control are included [10].

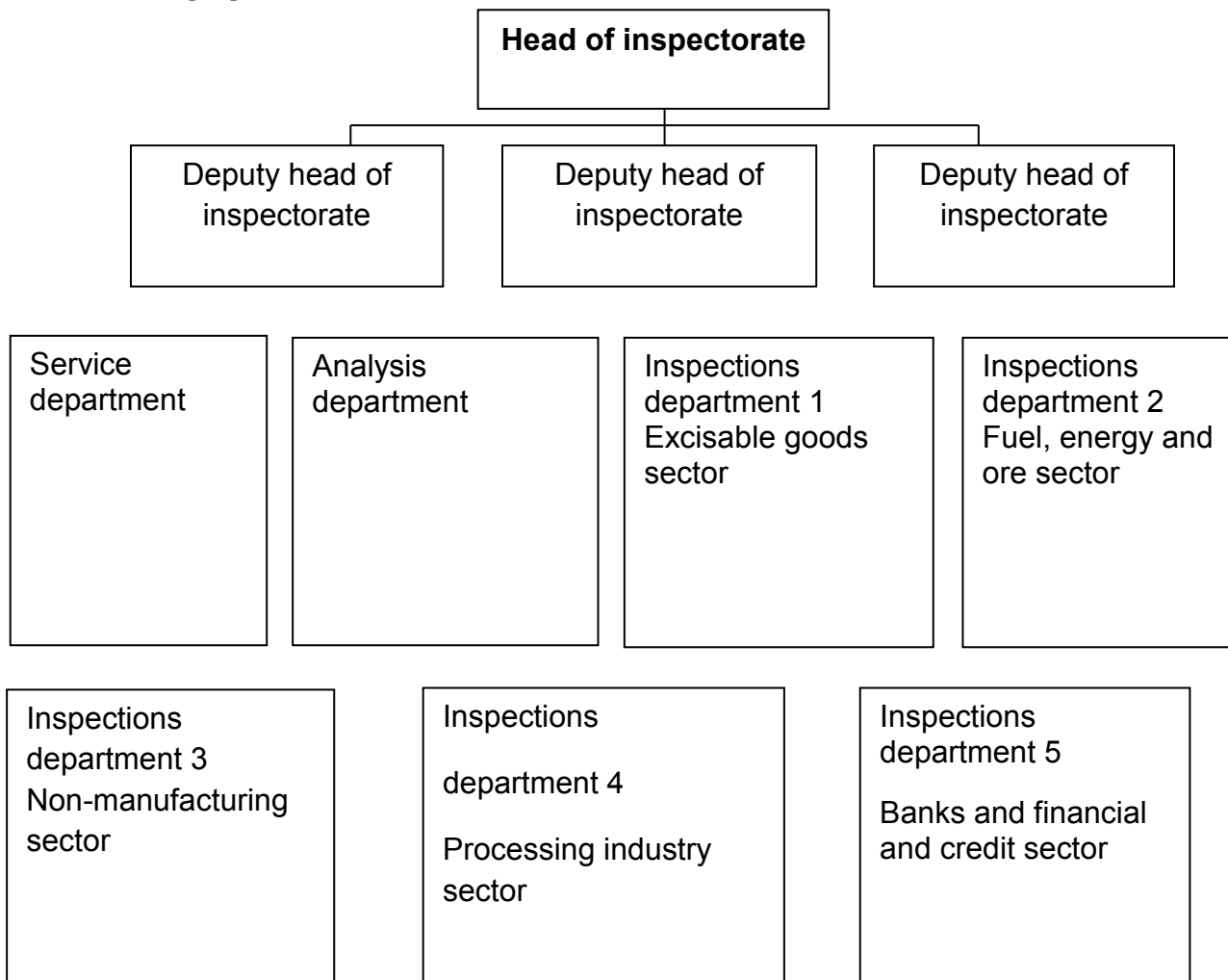


Chart 3. Organizational structure of large taxpayer tax inspectorate

Customs service always has a key role in economic development, security and management of foreign trade. The main objectives of customs authorities are:

- ensuring the protection of the RA economic sovereignty, economic security, economic interests and internal market;
- ensuring application of legislative provisions, prevention of violations and their detection;

- application of customs regulation measures prescribed by customs legislation in trade and economic relations;
 - customs control and customs registrations, fight against smuggling;
 - support to measures aimed at ensuring quality of imported goods, etc.
- [11].

For the accomplishment of the above set priorities it is necessary to properly observe the requirements of legislation and establish a transparent and accountable organizational structure.

In customs system of Armenia around 739 customs officers are involved, who participate in various training courses for improvement of their knowledge and skills. Below is presented the organizational structure of customs authority.

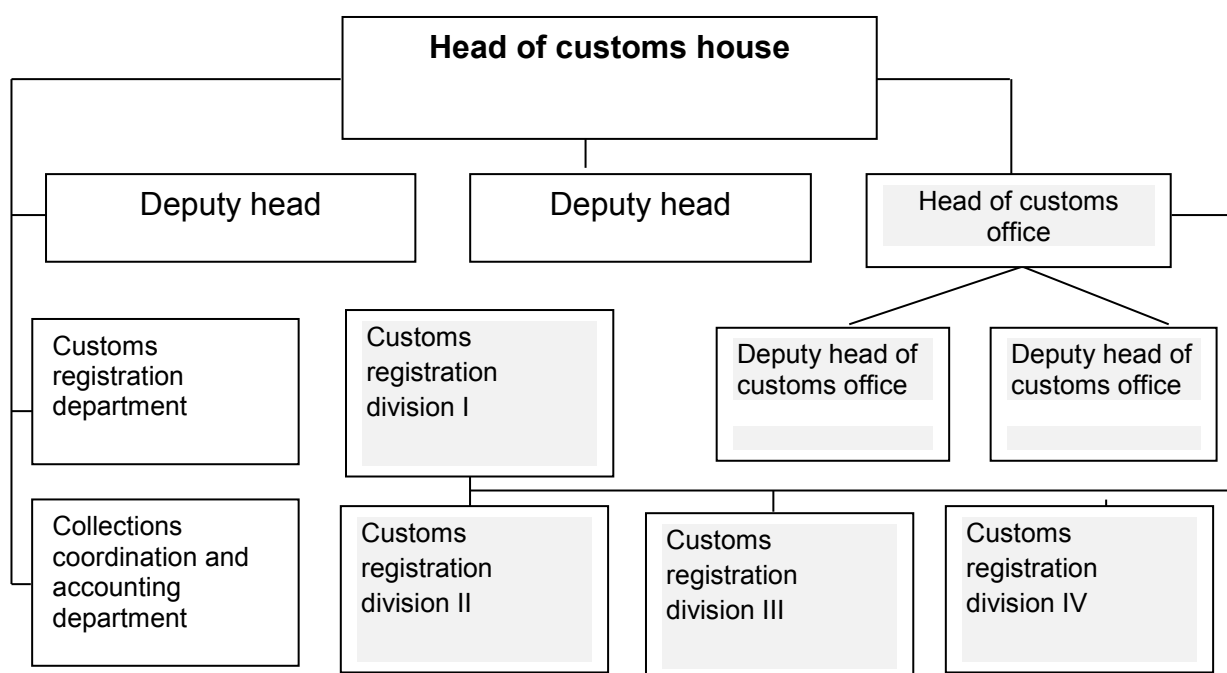


Chart 4. Organizational structure of the RA customs houses [8]

Customs house comprises 15 customs offices. For simplification and improvement of customs procedures, as well as for ensuring the compliance of the RA customs legislation with the standards of Eurasian Economic Union both extensive legislative and organizational and technical and control reforms have been implemented in the system, including improvement of customs control system based on risk management, introduction of modern control mechanisms, etc.

Based on the results of the above stated study a number of conclusions has been drawn and recommendations have been provided, which are presented below. Organizational structure has its unique place in ensuring the effective functioning of tax and customs system, which is a platform for enforcement and supervision of tax system legislation. Without an effective organizational structure, the key component of the state, which is responsible for planning and collection of revenue, can not function effectively. Very often the autonomy, the organizational structure of tax authority is conditional upon form of government (federal and unitary), peculiarities of the state system and level of economic development. The organizational structure of tax system can act as a unified structure composed of different elements or act within the Ministry of Finance. In the Republic of Armenia all tax and customs administration functions are performed by the SRC adjunct to the RA government.

The organizational structure of tax system is set based on four principles: by types of taxes, by functions, by taxpayers segments and combined. In terms of tax administration individual countries have different requirements and are at certain levels of development. Thus, as much the economy is developed, the more complex is the organizational structure of tax system, such as in the USA, Germany, Great Britain, France, Canada and others. More comprehensive are the structures of tax systems of Australia, Belgium, Sweden and Switzerland. In the countries, including Armenia, with small number of taxpayers, simple organizational structure is typical for tax system and the number of officers does not exceed 2000. Tax system, depending on the complexity degree of the organizational structure may consist of several components (lower, municipal, district, regional, central).

With the view of proper fulfilment of its mission and readiness to address challenges tax and customs system of Armenia constantly improves its legislative framework, control instruments and organizational structure.

The organizational structure of tax system of Armenia has been established on a functional principle, but contains elements both by taxpayers segments (large taxpayers) and by types of taxes (excise tax). Although, in recent years, various measures were undertaken for rehabilitation and enhancement of the system, there is still much to be done with respect to the improvement of the organizational structure. Thus, serious efforts shall be expended for improvement of the system, which in essence include the following:

1. It is necessary to optimize the organizational structure of the system, and hence the attention shall be focused not on the number of authorities but on the appropriate planning of expenses, also it shall be considered that the taxpayer shall resolve its problems at territorial level.

2. It is necessary to establish an organizational structure that will enable constantly improve the number, valuableness, quality of the services rendered by the tax authority to meet international requirements. During optimization of the system such a flexible organizational structure shall be set that will allow to timely address the internal and external environmental changes.

3. In term of optimization of the structure, recently in addition to taxpayers service departments of territorial inspectorates, separate service centers are put in operation in order to clarify the inspectorates functions, by distinguishing taxpayers service functions. For this purpose it is necessary to take into account the number of taxpayers served by the inspectorates, introduce effective system of assessment of tax inspectorates activities, both in terms of workload and cost-outcome analysis.

4. Since the functional principle is prevailing in the organizational structure, the recurrence of functions shall be avoided for their efficient performance and certain elements of management matrix shall be applied, the responsibility hierarchy shall be set by horizontal and vertical structure.

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Local budgets in the context of decentralization of power

Abstract: The article analyzes the categories of "decentralization", "financial decentralization", "deconcentration", focuses on the problems of local self-government, analyzes the essence and peculiarities of the local self-government reform, emphasizes the peculiarities of the formation of the tax institute, addresses the problems and prospects of the formation of local budgets in modern conditions.

Keywords: public authority, local self-government, decentralization. regional government, local self-government reform, state budget, local budgets, taxes, deconcentration.

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Місцеві бюджети в контексті децентралізації влади

Анотація: В статті аналізуються категорії «децентралізація», «фінансова децентралізація», «деконцентрація», акцентується увага на проблемах місцевого самоврядування, дано аналіз сутності та особливості реформи місцевого самоврядування, здійснено акцент на особливостях становлення інституту податків, розглядаються проблеми та перспективи формування місцевих бюджетів в сучасних умовах.

Ключові слова: публічна влада, місцеве самоврядування, децентралізація, регіональна влада, реформа місцевого самоврядування, Державний бюджет, місцеві бюджети, податки, деконцентрація.

Людина – її національна свідомість, духовні потреби, національно-громадянська належність, переконання, матеріальний добробут – є основою змісту процесів творення національної суспільної системи.

Сучасні виклики вимагають по новому розглянути взаємозв'язок публічної влади, місцевого самоврядування та формування місцевих бюджетів. І все це проаналізувати з точки зору процесів децентралізації, які відбуваються в Україні. Як відомо, одним із першочергових завдань які стоять перед Україною – зміцнення засад правової, демократичної, соціальної держави. Для виконання цього завдання необхідно укріпляти взаємовідносини «держава – регіони – територіальні громади». Виходячи з принципу розподілу влади, для кожної демократичної держави необхідним є розмежування компетенції органів публічної адміністрації. Разом з тим, надзвичайно важливим є визначення оптимального рівня концентрації владних повноважень для кожної інституційної ланки в системі публічної адміністрації – з подальшою передачею «надлишкових» повноважень максимально наближеним до населення суб'єктам, тобто їх децентралізацією.

Сам процес децентралізації функцій між центральним і місцевим урядами є надзвичайно складним. Він стосується аспектів фінансів, адміністрації, контролю, регулювання, звітності й підзвітності, які фактично є елементами взаємин між різними рівнями уряду. Окрім того, здійснення децентралізації, на жаль, проходить не дуже рівномірно. Незважаючи на спільні зусилля політичних й економічних чинників, як і породжують потребу в децентралізації, нерідко між реальним положенням речей і цілями існують прогалини, причиною яких може бути політика й законодавство [1].

Першими питання децентралізованого державного устрою розглянули науковці Ж. Боден та Й. Альтузіус: Ж. Боден розвинув теорію суверенної монолітної держави, а Й. Альтузіус на протипагу опоненту, висунув теорію федеральної державної організації [1]. Проблему децентралізації та деконцентрації влади вивчали такі науковці як: В. Борденюк, Г. Бребан, М. Будник, Ж. Ведель, І. Грицяк, В. Авер'янов, О. Бориславська, Л. Івлєєва, А. Коваленко, Р. Колишко, А. Матвієнко, С. Махина, И. Трохимова, В. Халипов, В. Храмов, І. Цурканова та інші. Проте вони не акцентували увагу на питаннях фінансової децентралізації.

Метою статті є дослідження особливостей формування місцевих бюджетів в умовах фінансової децентралізації. У відповідності до поставленої мети завданнями статті є: проаналізувати термін «децентралізація» та його особливості; дати оцінку реформі місцевого самоврядування; провести аналіз формування місцевих бюджетів в умовах фінансової децентралізації.

Засади регіональної влади в Україні визначені її Конституцією і за принципами організації загалом відповідають європейській змішаній елітній моделі. Остання ґрунтується на поєднанні прямого державного управління та місцевого самоврядування. В минулому відносини між державною владою і місцевим самоврядуванням склалися не на користь останнього і неповною мірою відповідали демократичним засадам, закладеним в Європейській Хартії про місцеве самоврядування [2]. Зазначимо, що децентралізація є доволі складним поняттям, яке можна розкривати через його вплив на: адміністративно-територіальний устрій держави, систему органів публічної адміністрації, розподіл між ними функцій, повноважень та фінансових ресурсів. Однак передусім нагадаємо, що децентралізацію задекларовано у статті 132 Конституції України як одну із засад, на яких ґрунтується територіальний устрій держави. Проте, на відміну від Конституцій багатьох зарубіжних держав, засадою є не сама децентралізація, а «поєднання централізації і децентралізації у здійсненні державної влади». Тобто, в наших реаліях децентралізація – це «поєднання» яке відображає постійні коливання українського суспільства та його політику між Сходом і Заходом.

Ідею децентралізації управління в Україні почали обговорювати з часу здобуття нашою країною незалежності. Перші кроки стосовно децентралізації управління були здійснені із прийняттям Конституції України в 1996 році. Ідея

місцевого самоврядування знайшла своє відображення у прийнятому в травні 1997 р. Законі „Про місцеве самоврядування в Україні”, а у липні 1997 р. Україна приєдналася до Європейської Хартії місцевого самоврядування. У Законі „Про місцеве самоврядування в Україні” наголошується, що територіальне самоврядування здійснюється як безпосередньо, так і через сільські, селищні, міські Ради та їх виконавчі комітети, а також через районні та обласні Ради, які представляють спільні інтереси територіальних громад сіл, селищ, міст [2].

Різні науковці трактують по-різному поняття “децентралізація” та “деконцентрація”. Розглянемо деякі з таких тлумачень. Як відомо, децентралізація є політикою центральної влади з передачі місцевим органам влади (органам самоврядування) низки компетенцій, які до цього здійснювалися державою. Отже, децентралізація – це процес розширення і зміцнення прав та повноважень адміністративно-територіальних одиниць або нижчих органів за одночасного звуження прав і повноважень відповідного центру з метою оптимізації та підвищення ефективності управління суспільно важливими справами, найповнішої реалізації регіональних і місцевих інтересів.

Система взаємовідносин органів місцевого самоврядування та органів державної влади пов'язана з деконцентрацією і децентралізацією. На ефективність функціонування місцевої системи управління впливає зв'язок децентралізації та деконцентрації влади, співвідношення функцій та компетенції органів влади, їх розподіл за функціональними та галузевими принципами [3]. Аналіз понять “децентралізація” та “деконцентрація” дає можливість використовувати їх у різних значеннях. Науковець І. Грицьак зазначає, що “останніми десятиліттями у країнах світу значно посилюлися процеси деконцентрації і децентралізації державної влади. Справжня децентралізація передбачає, в першу чергу, передачу повноважень центральної влади неподставницьким органам місцевої влади (наприклад, генеральним і муніципальним радам у Франції), а представникам центральної виконавчої влади на місцях (префектам)” [4]. На думку французьких адміністративістів, близьким, але не тотожним за змістом до децентралізації є поняття деконцентрації влади, оскільки деконцентрація – це лише “техніка управління” [5], що означає розподіл виконання функцій держави всередині самої системи органів виконавчої влади, а децентралізація ж відповідно передбачає передачу управління справами органам, що володіють певною незалежністю по ставленню до центральної влади. Автор А. Коваленко вважає, що сут-

ність децентралізації полягає у тому, що “політико-правові елементи взаємовідносин громади і держави утворюють особливий правовий режим, що надає місцевим органам самостійність і ієрархічну незалежність від органів як державного управління, так і самоврядування” [6].

Слід наголосити, що децентралізація – не одноразова передача владних повноважень від органів державної влади до органів місцевого самоврядування, а як комплексний процес, що включає у себе такі елементи, як питання спроможності органів державної влади передати, а органів місцевого самоврядування – отримати і ефективно розпорядитися владними повноваженнями; визначення обсягу повноважень, який необхідно передавати механізм передачі владних повноважень; механізм взаємодії органів державної влади і органів місцевого самоврядування; питання адміністративно-територіальної реформи [7].

Перевагами та позитивними наслідками децентралізації є: час і місце прийняття рішення відповідають очікуванням з боку громадськості (особи, колективу, громади тощо); реалізація рішення відбувається за участі суб'єкта прийняття рішення або під його відповідальність; прозорість і відкритість процедур прийняття рішення та процесу його реалізації, що призводить до підвищення ефективності адміністративної діяльності, виявлення помилок, джерел їх походження тощо; період часу для надходження інформації з рівня виконавця на рівень прийняття рішення і навпаки значно коротший; підвищення свідомості та загострення почуття відповідальності за здійснені заходи і прийняті рішення; мінімізація бюрократизму, тобто. взаємовідносини між особою та адміністрацією набувають ознак партнерства і породжують відчуття «спільної справи» в обох сторін; звільнення керівництва від поточних справ, що посилює можливість зосередження керівної ланки на справах стратегічного значення, тощо; гнучкість процесу виконання відповідних функцій, що дозволяє швидше пристосовуватися до зовнішніх чи внутрішніх змін; підвищення ініціативності працівників нижчого рівня, більш повне та ефективне використання людського потенціалу, підвищення мотивації праці; об'єктивна оцінка результатів прийнятих і реалізованих рішень..

Отже, децентралізація – це передача повноважень та бюджетних надходжень від державних органів до органів місцевого самоврядування. Метою реформи місцевого самоврядування є, передусім, забезпечення його спроможності самостійно, за рахунок власних ресурсів, вирішувати питання місцевого зна-

чення. Йдеться про наділення територіальних громад більшими ресурсами та про мобілізацію їхніх внутрішніх резервів. Реформа органів місцевого самоврядування передбачає об'єднання (укрупнення) територіальних громад. Це здійснюється через те, що надмірна частина ресурсів у таких громадах і далі витратиметься на утримання управлінського апарату, а для реалізації серйозних проектів місцевого розвитку коштів не вистачатиме. І навіть наділення додатковими ресурсами переважної більшості наявних дрібних територіальних громад, їхньої спроможності не забезпечить. Тому реформа місцевого самоврядування, враховуючи позитивний як європейський, так і власний історичний досвід, передбачає обов'язкове об'єднання (укрупнення) територіальних громад.

Донедавна в Україні існувала низка проблем в фінансовому забезпеченні органів місцевого самоврядування, зокрема пов'язаних із: невідповідністю між завданнями органів місцевого самоврядування і ресурсами, необхідними для їх виконання; невизначеністю критеріїв фінансового вирівнювання та розподілу місцевих субвенцій; необґрунтованим обмеженням використання позикових капіталів; суттєвим домінуванням трансфертів над власними фінансовими ресурсами; обмеженою часткою надходжень від місцевого оподаткування [8].

Серед найвагоміших проблем місцевих бюджетів є їх розбалансованість. Причому, розбалансованість як вертикального, так і горизонтального характеру. Зокрема, щодо вертикального збалансування, то основним завданням в цьому контексті є приведення у відповідність обсягів фінансових ресурсів того чи іншого рівня регіонального управління з обсягами завдань та повноважень, які на нього покладаються [9].

До місцевих бюджетів належать області, райони, міські, селищні та сільські бюджети. Всього місцевих бюджетів в Україні понад 13 тисяч. Найчисельніша група це сільські, селищні та міські і бюджети. Система місцевих бюджетів існує в усіх країнах світу. Проте її розвиток і функції зумовлені рядом національних, політичних, економічних та інших факторів. Найбільший вплив мають економічні та політичні фактори. Місцеві ради самостійно визначають напрямки використання коштів своїх бюджетів. Проблема наповнення і формування місцевих бюджетів завжди була і є досить актуальною.

Найголовнішою проблемою завжди було те, що тих податкових надходжень, які отримували місцеві бюджети завжди бракувало для того, щоб вирішити всі соціально-економічні питання. Це призводило до дефіциту бюджету. На

сьогодні ситуація змінюється, з 1 січня 2015 року вступили в дію зміни до Податкового та Бюджетного кодексів, які уже розширили фінансові можливості місцевого самоврядування, а в майбутньому дозволяють зробити економічно самодостатніми та спроможними і нові об'єднані громади. Об'єднані громади отримують весь спектр повноважень та фінансових ресурсів, що їх наразі уже мають міста обласного значення, зокрема, прямі міжбюджетні відносини з державним бюджетом (зараз прямі відносини мають лише області, райони, міста обласного значення), державні субвенції. Законодавчі зміни надали право органам місцевого самоврядування затверджувати місцеві бюджети незалежно від прийняття закону про Державний бюджет. На сьогодні основними джерелами формування місцевих бюджетів є: податки: 60% податку на доходи фізичних осіб; 25% екологічного податку; 5% акцизного податку з реалізації підакцизних товарів; 100% єдиного податку; 100% податок на прибуток підприємств та фінансових установ комунальної власності; 100% податку на майно(нерухомість, земля, транспорт); місцеві податки і збори; інші доходи. Передбачається зростання надходжень до місцевих бюджетів на 40%.

Отже, суть перетворень, що пропонує реформа децентралізації: розмежування функції та повноважень виконавчої влади та органів місцевого самоврядування, відповідно до реформи повноваження органів місцевого самоврядування будуть забезпечені фінансами. Органи місцевого самоврядування матимуть, зокрема, частку від загальнонаціональних податків (а не тільки дотації). До матеріальної та фінансової бази місцевого самоврядування мають додати місцеві податки і збори. По суті, це конституційно закріпить бюджетну децентралізацію, яка вже і так діє в Україні з початку 2015 року. За даними міністерства фінансів, за перше півріччя цього року плани з наповнення місцевих бюджетів були перевиконані майже на 38 відсотків - на 12 мільярдів гривень.

Висновки

❖ Місцеве самоврядування існувало в обмеженому режимі. Обмежені повноваження і що найголовніше обмежені ресурси для фінансування місцевих потреб. Розглянувши різні погляди науковців на поняття децентралізація та деконцентрації, можна зробити висновок, що децентралізація – це вертикальний перерозподіл відповідальності між певними рівнями одного і того ж органу влади, а деконцентрація – це поділ відповідальності між різними суб'єктами.

❖ Реформа місцевого самоврядування передбачає: право вирішувати – тобто передачу повноважень, і спроможність – тобто передачу коштів громадам. Це буде закріплено і в Конституції України, і у багатьох законах. Це визначить нові правила, як працюватиме система влади. Суть перетворень, що пропонує реформа децентралізації: розмежування функції та повноважень виконавчої влади та органів місцевого самоврядування. У децентралізованій унітарній державі є найбільш спроможними два рівні публічної влади: національний та місцевий.

❖ Реформа місцевого самоврядування, враховуючи позитивний як європейський, так і власний історичний досвід, передбачає обов'язкове об'єднання (укрупнення) територіальних громад. Реформа, яка передбачає передачу в місцеві бюджети частки загальнонаціональних податків, створює економічну зацікавленість громад в розвитку нових виробництв, підтримці бізнесу тощо. Децентралізація і дерегуляція прибирає штучні перешкоди для бізнесу і підприємницької діяльності – зайві дозволи, інстанції, надмірний контроль.

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Management of investment and construction activities on the basis of engineering accounting simulation

Abstract: The article presents the author's model of accounting, control and management of economic phenomena of investment and construction activities, which form an efficient information system. The model is created on the basis of engineering integration and includes integrated systems involving financial, managerial, taxing, transactional accounting and enables to influence the management of investment and construction activities in real time. The implementation of this model can serve as a mechanism for innovative industry development.

Keywords: accounting in construction, accounting simulation, traditional and international accounting models, accounting optics, engineering accounting, accounting management of economic phenomena.

Accounting, control and management of investment and construction activities (ICA) are considered on the basis of accounting management of economic phenomena. This task is solved on the basis of the development of engineering accounting system and management of construction organizations.

The theoretical and practical value of accounting and management in economics has increased dramatically over the past decade. It is due to a great number of new strategic and management accounting methods, transactional and engineering forms.

In the context of the global economic crisis, the solution of the main tasks of the Russian economy development aimed at modernization, scientific and technolog-

ical progress and the expansion of science absorbing industry, investment and construction activities are of decisive importance.

The development of any industry in Russia is directly or indirectly deals with construction (transport and communications, mining operations, manufacturing, agriculture, education, etc.).

In accordance with the accounting system developed by Nobel laureate R. Stone (System of national accounts) [1] on the basis of the double entry method, construction is one of the main branches in the industrial classification of economic activities including 25 types.

All-Russian classifier of economic activities determines construction by class code 45 in section 45 "Construction services and construction projects".

Based on the overview of memorandum and Founders Agreements of more than 150 enterprises of the Southern Federal District, it is found out that their activities include various types: about 40 - basic, more than 10 - major construction, about 20 - other activities. All these activities should be considered when designing an economic model of accounting, control and management of economic phenomena.

In the current accounting regulations, it is recommended to reflect 2 types of activity - main activities and others. Such accounting leads to weakening the function of accounting management, depersonalizing the costs accounting, makes it difficult to use modern methods of control.

Review of various theoretical sources and the study of existing practices made it possible to distinguish the following four areas of the investment and construction complex in the financial accounting:

1. The main activity including construction, design, reconstruction of existing enterprises, etc.
2. Capital investments in the form of investment, contracting, subcontracting, real estate development, equity construction, leasing and other types of activities.
3. Types of activities in industry, agriculture, transport, commerce, etc.
4. Activities in market-oriented forms - reorganizational, venture, outsourcing, etc. [1]

The article considers the investment and construction process as a complex including investment, design, construction, financial, as well as service activity. This complex is constructed on the basis of engineering integration and is characterized

by a system of patterns which includes: an information field, managerial, financial and strategic accounting. [2]

The subjects of investment and construction activities (ICA) are investors, developers, real estate developers, customers, suppliers, contractors and subcontractors, as well as engineering, design, consulting and regulatory organizations.

Between the ICA subjects there are material and financial flows associated with the purchase of patches of land, construction and installation works and the transfer of finished construction projects.

The ICA subjects can combine a variety of functions. For example,

- developer combines the functions of an investor, a real estate developer, a customer;
- investor is simultaneously a contractor, a real estate developer and a customer;
- real estate developer combines the functions of a contractor and a customer;
- contractor acts as a customer;
- economic entity can combine the functions of a real estate developer, a customer and a contractor at in-house construction. [3]

It is important to note that in civil law and accounting regulations there is no concept of developer and real estate development business. Many regulatory and accounting issues are not also developed in legal documents, although they are used in practice. [4]

In the financial accounting for the transition to market relations the two main directions of development were formed in the construction:

- traditional accounting based on the 20th accounts containing more than ten variants;
- international financial accounting, which uses the 30th accounts considering the costs of economic elements. It includes about ten variants based on 30-39, 32, 34th accounts according to the types of costs.

In traditional and international models of financial accounting, it is possible to use several optics such as financial, manufacturing, social, specialized optics, which solve certain problems of financial accounting. These are the management tasks to regulate the production, tasks centres, income, taxes, gross measures, social problems, etc. [5]

Unfortunately, financial accounting has not significantly changed for capital investments after transition to market relations. It uses one account 08 "Investments in noncurrent assets" which was formerly called "Capital investments". This account is not of a market nature and maintains the characteristics of the administrative system:

- expenses are reflected in account 08, then are transferred to accounts 01, 03 at the actual cost;
- prices for work which is performed using their own resources are not determined;
- financial result is not determined and is not reflected in the accounting;
- regulation of calculated taxation mechanisms does not work;
- the system of effective control of capital investments is not defined.

At present ICA accounting systems have been developed and are being applied. They deal with the regulation of the financial system of a construction organization and include the management of financial solvency, reserve system, risks, state of business, etc. [6]

At the turn of the 20th and 21st centuries the principles of architectonics began to be applied in accounting. The architectonics of the chart of accounts includes the management architectonics, the data architectonics, the architectonics of business, software applications, accounting transactions. This caused the implementation of structured plans of accounts in construction organizations with a capacity of thousands of accounting and analytical positions. [7]

The commercial organizations of the Russian Federation have a chart of accounts that allows considering more than thousands of positions (OJSC Baltika - more than 166 thousands, "Montazhnik" - 14.5 thousands, "Stroiles" - 2.5 thousands).

All these and other circumstances caused the necessity for the development of an engineering accounting and integrated model for accounting control and management of the ICA which is formed into an effective accounting methodology for financial, managerial and strategic accounting. Simulation is widely used in accounting.

Accounting model is a theoretical and experimental system which includes corresponding subjects as well as the permanent and variable components. Permanent components include theories, concepts and the corresponding information base, on the basis of which the system-based variable factors are determined. [8]

Accounting models can be considered from the two points:

- semantic - derived balance sheet reports can be used for this approach as instruments of accounting engineering (fractal, situational, etc.).

- pragmatic approach - forms and ensures the use of indicators data indicators of engineering financial, adaptive, managerial, strategic types of accounting.

The semantic model of the construction organization, forming the derivative balance sheet, is used to achieve the enterprise's best targets in net assets and equity.

In this case the basic accounting model can include a number of semantic models - variants for integrated ICA accounting, types of activity, corresponding optics, financial accounting, management accounting model.

For example, simulation of variants of integrated ICA accounting is represented by the following organizational semantic actions:

- distinction of the functions of an investor, a developer and a contractor;
- performing by one subject the functions of the two others;
- performing of all basic functions by one subject.

The following main subjects and functional areas are accepted in the integrated model of accounting, control and management of investment and construction activities.

Basic subjects of ICA:

1. Investors. 2. Customers are trustees who implement the project. 3. Real estate developers of general and shared-equity construction. 4. Developers, legal entities who perform the functions of financing organizations of all forms of ownership, collect funding sources, construct facilities with the appropriate infrastructure and organize Homeowners Associations (HA). 5. Contractors performing contract work. 6. Subcontractors performing separate specialized types of work. 7. Project organizations. 8. Consulting and engineering organizations. 9. Suppliers. 10. Users of ICA projects.

Functional types of ICA subjects.

1. Investment activity, i.e. investing capital for acquisition of income. 2. Construction activity - the creation of new buildings, structures, erections, major and current repair of buildings and structures, reconstruction, restoration and renovation. 3. Investment and construction activities which are conducted by developers and real estate developers of shared-equity construction. 4. Implementation of projects by customers, HAs, suppliers, users.

Typical blocks of model of accounting, control and management of ICA subjects.

11 blocks of the accounting model of ICA subject can be distinguished.

- theories and concepts of system integration;
- information integrated ICA system;
- types of ICA;
- indicators of ICA accounting for projects;
- information transactional system;
- contract relations;
- financial accounting;
- accountancy and charts of accounts;
- architectonics (formation) of charts of accounts;
- management of investment and construction activities, economic phenomena;
- organization of the control system.

The First block

Theories and concepts of models of accounting, control and management of ICA are presented in the first block. They include:

- engineering theory of accountancy; [9]
- concept of the agency relations;
- pricing system;
- methodology of economic mechanisms of reserve system;
- concept of instruments of accounting engineering.

The agency relations in ICA are built up to provide the greatest effective control and property management, which are based on financial, managerial and strategic financial accounting.

The main idea of functional accounting pricing does make it possible to manage project pricing.

The methodology of the methodological instrument of reserve system is based on the use of adequate mechanisms of accounting engineering, and enables risk and resources management. Concepts of instruments of accounting engineering are described in the paper in detail. [10]

The second block of model of accounting, control and management of ICA includes the integrated information system of financial, managerial, and strategic accounting. It involves a traditional variant, based on the 20th accounts, and an international variant, based on the 30 accounts which are divided according to production, financial and specialized optics. Moreover, over 20 subsections of financial accounting management of ICA are used.

Managerial accounting in ICA is characterized by management of cost value, as well as resource potential.

Strategic accounting represents an integrated system which enables to manage property, resource potential and enterprise's innovations.

Tax accounting has numerous variants which can be grouped as follows:

- autonomous tax accounting;
- accounting on the basis of a single accountancy;
- the integrated variant of tax accounting, based on an international model of financial accounting;
- on the basis of off-balance accounting;
- based on the integrated system, as well as production, financial and tax optics, tax and financial accounting.

The third block will enable users to apply the transactional accounting allowing to determine the potential.

The fourth block of the ICA model is presented by class code 45 "Construction" in the all-Russian Classifier of Economic Activities, RNCEC. The Classifier of the WTO contains 160 types of activity united in 12 sections, 72 of them belong to ICA, including:

- 5 groups – construction and engineering services;
- 46 groups – business services;
- 17 groups – financial services, including insurance;
- 4 groups – the services in the field of environmental protection.

The fifth block of the model consists of objects and indicators of accounting.

According to the order of the Ministry of Finance of the Russian Federation 27.04.2012 No. 55 N the contractor and the real estate developers objects of financial accounting are construction costs of buildings, structures, type or complex of works which are performed according to the project and the estimate.

Consumers of accounting of ICA are investors, developers, customers, real estate developers, contractors, subcontractors.

Contractors and subcontractors constantly receive and control the indicators:

- bank credits;
- costs for performance of works on projects;
- construction in progress, including works accepted for payment and paid;
- income gained from the customer on the transferred projects according to the agreement;
- the advance payments received from customers for the performed work;
- the advance payments given to a subcontractor under the works agreement.

Investors consider and control the following indicators:

- financing on bank credits and bank sources;
- expenses on execution of legal documents, including registration of the rights to real estate;
- indicators on completed projects;
- data on construction in progress;
- investment revenue;
- process of construction financing and payments from a customer.
- project cost in the real estate market.

The sixth block of model of accounting determines system of contractual relations. They can be grouped as follows:

- agreements of investment, equity, co-financing, assignment of claim, an ordinary partnership between subjects of ICA;
- contracts of constructing and subcontracting and other types of contracts between subjects of investment construction activities;
- credit agreements of insurance and loan with participants of financial groups;
- contracts for deliveries and services;
- purchase and sale agreements with buyers;
- agreements on state examination and construction supervision.

The analysis of accounting and legal components of the ICA model includes the following sections:

- financial position of partners;

- legal characteristics of business activity, profit earning, independence, risks;
- distribution of economy between the parties on accomplishment of contract works before commissioning of the project;
- risk of accidents for which the contractor is responsible before commissioning of the object, and the customer after commissioning of the object;
- warranty periods on detection of insufficient quality of works;
- procedure of advance payments on stages, constituting objects of a complex and a construction complex in general.

The seventh block of model contains recommendations on systems of accounting financial accounting of ICA which include:

- production optics (general contractor, subcontractor, suppliers);
- financial optics (insurance and financial organizations);
- specialized optics (customers, developers, real estate developers). [11]

The eighth block of model includes the architectural structured charts of accounts with high analytic capacity which include:

- from 50 to 100 thousand analytic items of production optics;
- from 10 to 30 thousand analytic items of special optics.

For example, OJSC "Baltika" has the chart of accounts of information capacity of 166440 items, 8760 – accounting items, 216 - cost centers, 173 – cost elements. And account 99 includes 300 analytical items.

The ninth block of the integrated engineering model of accounting, control and management of ICA represents architectonics of charts of accounts which enable to apply interactive computer programs for management and control.

Architectonics of charts of accounts represents integration of mechanisms of engineering into the structured charts of accounts which are used for management of financial condition, solvency, reserve system and risks.

The tenth block of model is the control block of economic activity based on the use of engineering accounting mechanisms which include:

- the hedged derivative balance sheet according to which engineering management of reserves is carried out;
- the derivative balance sheet of the integrated risk creates a possibility of risk management, including determination of financial risk zones;

— the monitoring derivative balance sheet allows to find quickly active, neutral and passive zones of financial condition, gives a chance of engineering management of a financial position;

— the reorganization and synergy derivative financial report creates a possibility of engineering management of reorganization with finding a synergy effect.

Management of investment construction activities is carried out with the use of simulation models and software reproducing accounting process with the required accuracy degree. [12]

So, the traditional accounting model contains 18 steps algorithm of cost value determination of produced and sold products. The financial optics of financial accounting uses 9 step algorithm of finding gross cost value, as well as a financial result. [13]

All this creates great opportunities for broad use of mechanisms of accounting engineering for financial, managerial and strategic accounting.

The eleventh block of model of accounting, control and management of ICA is a control system, which includes the following methods:

— the inventory method is a carrying out systematic inventory checking funds, assets and responsibilities, with the reflection of its results in financial documents;

— use of the system of report matching (financial, managerial, strategic);

— use of accounting control points for checking the information relevance;

— comparison of property indicators at the beginning and the end of a certain period according to the system of zero balances. Variance analysis of the ledger and instruments of accounting engineering – the derivative balance sheet.

Thus, the provided integrated model of accounting, control and management of ICA creates an effective information system for its participants.

This model is aimed at creation and use of an effective construction system and including financial, managerial and strategic accounting in investment construction activities. Implementation of this model can serve as a mechanism of the branch innovative development.

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***Research and methodological foundations of innovative
clusters' formation with involvement
of small business enterprises***

Abstract: The advantages of forming small enterprises' clusters have been analyzed in the article. The main differences between the cluster and other forms of cooperation of small business entities have been examined. The interaction model between the participants of innovation cluster with involvement of small enterprises has been developed. The main types of cluster policy in the developed countries have been singled out.

Keywords: small business entity, innovation cluster, cluster policy types, network interaction, and horizontal integration.

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і програмної інженерії

Дослідження методологічних засад формування інноваційних кластерів за участю підприємств малого бізнесу

Анотація: У статті проведено аналіз переваг формування кластерних утворень малих підприємств, досліджено відмінності кластера від інших форм кооперації суб'єктів малого бізнесу. Розроблено модель взаємодії учасників інноваційного кластера за участю малих підприємств та виокремлено основні типи кластерної політики розвинутих країн.

Ключові слова: суб'єкт малого бізнесу, інноваційний кластер, типи кластерної політики, мережева взаємодія, горизонтальна інтеграція.

1. INTRODUCTION (ВСТУП)

Сценарій довгострокового розвитку вітчизняного сектора малого бізнесу передбачає підвищення рівня його конкурентоздатності як у традиційних, так і нових наукомістких секторах, покращення якості людського капіталу й динаміки продуктивності праці, випереджувальний розвиток високо-технологічних виробництв і перетворення інноваційних факторів в основне джерело економічного зростання. Вирішення цих завдань потребує створення системи чіткої взаємодії держави, великого і малого бізнесу, науки й утворення ефективних інструментів інноваційного розвитку, серед яких пріоритетну роль повинен відігравати клас-

терний підхід. Взаємозумовленість і взаємозв'язки між процесами кластеризації, посилення конкурентоздатності й прискорення інноваційної діяльності – це новий економічний феномен, що дозволяє протистояти натиску глобальної конкуренції й належним чином відповідати вимогам національного й регіонального розвитку.

2. LITERATURE REVIEW (ОГЛЯД ЛІТЕРАТУРИ)

Серед наукових досліджень, у яких аналізується проблематика промислово-інноваційних кластерів, є праці видатних зарубіжних та вітчизняних учених – Й. Шумпетера [1], П. Друкера [2], З. Варналія [3]. Важливий внесок в теорію і практику формування кластерної моделі внесли українські вчені Б. Андрушків та Ю. Вовк [4], Н. Кирич [5], С. Соколенко [6], М. Войнаренко [7]. Наукове обґрунтування кластерних механізмів та ініціатив знайшло відображення в працях таких вчених, як М. Портер [8], А. Брувер [9], А. Шаститко [10].

Отже, наукове осмислення феномена кластерного розвитку малих підприємств проводилося переважно в рамках економічної науки, яка вивчає питання сполучення прагнень малого бізнесу до прибутковості та ефективності із соціальними й екологічними інноваціями. При цьому за наявності великого масиву наукової літератури, присвяченої висвітленню процесів кластеризації бізнесу, до сьогодні не визначено, яким має бути шлях формування кластерних утворень малих підприємств в Україні. У зв'язку з цим актуальним є дослідження основних методологічних аспектів формування кластерів підприємствами малого бізнесу. Мета даної статті полягає у проведенні аналізу переваг формування кластерних утворень малих підприємств, дослідженні відмінності кластера від інших форм кооперації суб'єктів малого бізнесу та розробленні моделі взаємодії учасників інноваційного кластера за участю малих підприємств.

3. RESULTS AND DISCUSSION (РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ)

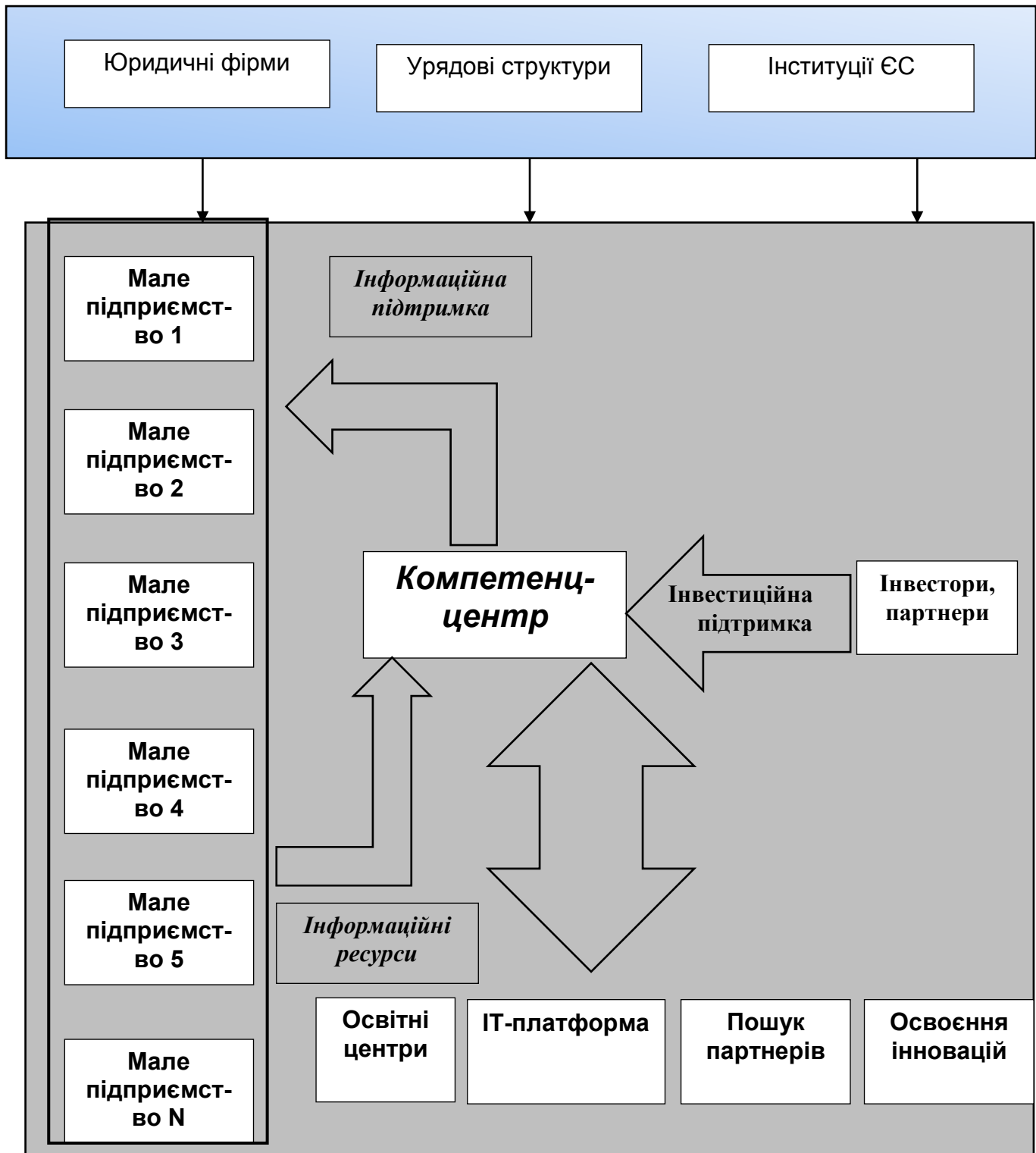
На сьогоднішній день кластерні об'єднання є однією з найефективніших форм організації інноваційних процесів в регіоні, за якої на ринку конкурують вже не окремі малі підприємства, а цілі комплекси, які скорочують свої витрати завдяки кооперації діяльності. Такі об'єднання сприяють підвищенню рівня економічної безпеки їх учасників, прискорюють темпи впровадження інновацій на малих підприємствах, сприяють підвищенню конкурентоспроможності різних

галузей економіки, не вимагають значних коштів і передбачають застосування різних ініціатив, спрямованих на стимулювання суб'єктів малого бізнесу для співпраці. Створення кластера дозволяє сформувати специфічний економічний простір, метою якого є підвищення рівня економічної безпеки, розширення сфери вільної торгівлі, збільшення обсягів експорту продукції кластера, вільного переміщення капіталу та людських ресурсів.

Відмінність кластера від інших форм організації малих підприємств, наприклад, територіально-виробничих комплексів, полягає в наявності внутрішнього конкурентного середовища та сильних конкурентних позицій на вітчизняному ринку. Отже, кластер – це поєднання кооперації та конкуренції, які доповнюють одна одну та створюють передумови для розвитку інноваційних процесів. Взаємозв'язок з внутрішніми потребами споживачами кластера базується на конкуренції, з зовнішніми – на кооперації. У рамках взаємодії в кластері відбуваються комунікаційні процеси, які сприяють формуванню всередині кластерів формальних і неформальних, особистих взаємозв'язків між його учасниками. Розвиток інформаційних та маркетингових зв'язків між малими підприємствами кластера на основі сучасних технологій сприяє формуванню в рамках міжрегіональної економічної інтеграції певних ланок ланцюжка створення вартості, загальних стандартів виробництва, поставок і управління, забезпечує активний розвиток кластерних брендів. Таким чином, кластеризація сприяє зміцненню компетентності малих підприємств регіону та значно збільшує рівень їх економічної безпеки.

Результати дослідження дозволяють стверджувати, що промислово-інноваційні кластери являють собою не просто спосіб співіснування на певній території, а вид мережного співробітництва, при якому об'єднання малих підприємств буде відбуватися на основі постійного обміну інформацією, використання спільних конкурентних переваг, наприклад, у вигляді єдиного освітнього центра по підготовці вузькопрофільних фахівців, єдиної ІТ-платформи, координації дій з метою одержання ефекту синергії від ефективності кластерного утворення (рис. 1). Це визначення активно застосовується для визначення різних типів співтовариств компаній, однак, у цьому випадку, воно дозволяє враховувати взаємозалежність усіх малих підприємств-учасників кластера й розвивати таку важливу властивість кластерних мереж, як спільне навчання (co-learning) і, в остаточному підсумку – коеволюція (co-evolution) їхніх учасників. Експертне

співтовариство та учасники діючих успішних кластерів на сьогоднішній день, у цілому, досягли консенсусу в тому, що ефективний розвиток кластера характеризується механізмом «потрійної спіралі» (Triple Helix), тобто взаємодією трьох груп учасників: бізнесу, влади і науки.



¹ Розроблено авторами.

- посередницька політика (broker policy), спрямована на співробітництво з бізнесом, розвиток наукових парків, бізнесів-інкубаторів;

- політика по стимулюванню високоякісного попиту (demand-side policy), що включає в себе акумулювання інформації про нові перспективи розвитку, повідомлення до потенційних споживачів інноваційної складової вироблених продуктів, розвиток ідеї відкритості інновацій;

- заходи щодо розвитку програм навчання;

- стимулювання розвитку міжнародних зв'язків (розвиток транскордонних кластерів);

- структурна політика (спрямована на інфраструктурний і інституціональний розвиток).

Незважаючи на позитивні моменти формування інноваційних кластерів за участю суб'єктів малого бізнесу, багато наукових експертів все ж виділяють певні недоліки сучасних кластерних політик на рівні розвинутих країн, наприклад [11, с. 52]:

- недостатня увага приділяється нетехнологічним інноваціям (наприклад, у сфері послуг);

- міжнародні зв'язки в процесі розвитку кластерів враховуються слабо – переважають національні програми розвитку (так звані «overly domestic programs»);

- недостатня координація між різними напрямками політик;

- лише фрагментарний облік минулого досвіду;

- поява все більшого числа ініціатив і програм підтримки зі слабкою координацією між ними.

CONCLUSIONS (ВИСНОВКИ)

Отже, результати проведеного дослідження розвитку промислово-інноваційних кластерів за участю суб'єктів малого бізнесу дозволяють зробити ряд принципових узагальнюючих висновків: 1) застосування кластерного підходу є закономірним етапом у розвитку економіки, а його повсюдне поширення можна розглядати як головну рису всіх високорозвинених економік; 2) специфікою промислово-інноваційного кластера є одержання малими підприємствами, що входять до нього, синергетичного ефекту, що виражається в покращенні інноваційного розвитку всієї системи в порівнянні з окремими господарюючими

суб'єктами. Кластерний механізм заснований на ефективному сполученні внутрішньокластерної кооперації малих підприємств у процесі виробництва продукції із внутрішньою конкуренцією в рамках промислового кластера. При цьому важливо підкреслити мережевий характер взаємодії його учасників, оскільки саме горизонтальна інтеграція в цьому випадку сприяє формуванню строго орієнтованого ланцюжка поширення нових знань, технологій й інновацій; 3) характерною рисою кластера за участю суб'єктів малого бізнесу є його інноваційна орієнтованість. Найбільш успішні кластери формуються там, де здійснюється або очікується «прорив» в галузі техніки й технології виробництва з наступним виходом на нові «ринкові ніші». Таким чином можемо зазначити, що кластер малих підприємств є сукупністю 7К: концентрація, кооперація, конкуренція, комунікація, координація, конкурентоздатність, компетенція.

Створення кластера суб'єктів малого бізнесу має на меті забезпечення концентрації виробництва та реалізації продукції, кооперації зусиль над поширенням інноваційних процесів, забезпечення конкуренції, комунікаційних процесів в рамках кластерного утворення та спільної координації діяльності малих підприємств.

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Concept of service-oriented public policymaking in Ukrainian public administration science

Abstract: Considering concept formation of service-oriented public policy, the main stages of its development are discussed and some of the modern trends of service-oriented policymaking in Ukrainian public administration system are analyzed. Some features and tendencies are identified in order to improve the quality of administrative tools provision in Ukraine. The purpose of this work is to analyze the concept formation of service-oriented public policymaking in Ukrainian public administration science and to present the state of implementing administrative services in Ukraine.

Keywords: administration services; e-services delivery; service-oriented public policy; good governance; public administration in Ukraine.

Until recently, perception of the notion of service and its research in Ukrainian public administration science was related only to the tertiary sector of economy, service sector. Herewith, many adherents of the traditional concept of public administration (“administrative management”) ignored even the possibility of building a service state in Ukraine, while the role of service activities on behalf of the state was reduced only to the ancillary (secondary) function of providing “administrative services” by public authorities. However, growing world economy globalization trends in developed countries caused a different vision of the place and role of citizen and his relationship with the state, and therefore, the system of public administration was reformed on the basis of a new “model of administration as a guaranteed service system” [1] or the theory of “service state”. Thus, according to the statistics portal of the U.S. Department of Labor [2], as of 1 January 2017, only 18% of able-bodied population of the United States were employed in the primary and secondary sectors of economy (agriculture, manufacturing industry and construction), while the rest were

working in service sector, which includes services provided by not only businesses but also public authorities and nongovernmental organizations. So, in this context, one should differentiate between service sector as a component of economy and “high American mission” of serving people, and therefore, functions of the state in the United States, from lawmaking to national security, are considered as service activity of public authorities. This confirms the relevance of this topic.

The purpose of this paper is to explain the concept formation of service-oriented public policymaking in Ukrainian public administration science as well as to present the state of implementing service-oriented administrative tools in Ukraine and the tendencies that could be recognized in this direction.

Service model of economy does not prognosticate domination of the state in creation of conditions for vital activity in the country based on the principle of “top-to-bottom”, but facilitates formation of another vertical, “bottom-to-top”, when initiative comes from nongovernmental and civic organizations and business associations and when ordinary citizens are engaged to initiate positive systemic changes in the functioning of society. The service-based principle of interaction should be regarded as a form of organizing activity, and the changing role of citizen (civil society) in public administration lies at the core of perception of the nature of service state. The origins of cognition of the service-based nature of relationship between citizens and the state are rooted in Aristotle’s idea concerning participation of all citizens in public administration as an unquestionable benefit. The vector of increasing role and significance of the citizen in public administration, from an object of influence by the state to a real participant of management processes, can be systematically traced in evolution of various concepts of public administration: public administration → new public management & policy network → good governance. Russian scholar Y. Karlovskaya takes the view of the “servicing” paradigm in the sphere of public administration as an innovative strategy related to the “movement of activity from the sphere of administrative proceedings to the sphere of socioeconomic activity for the purpose of maximizing consumer provision (service as a process) and increasing, on this basis, the effectiveness of institutional units of the public administration sector (service as a result)” [3]. At the same time, organizational and procedural nature of “public services” category is reflected by the term “service activity”, which, if applied in economy, is defined by G. Avanesova as a specific activity of professionally trained people who

enter into social relationships to deliver social, group and individual services within the framework of market relationship [4].

We should agree with Y. Kozhenko, that service-based approach to public administration is an integral legal phenomenon that contains universal and specific patterns in functioning and self-organization of administrative relations characterized by relevant typological, axiological, ontological and morphological features. The service-based idea of development of government system is based on the traditional interaction: “service provider – consumer”, where the strength and legitimacy of public institutes is related to the effectiveness of identification, modeling and realization of individual and group interests and needs. In the case of a “service-based” organization of management, “consumer satisfaction” becomes the dominant indicator of effectiveness [5].

Lately, discussion concerning correlation of the terms “service state” – “welfare state” and “service-oriented public policy” – “welfare state policy” has become of especially contemporary significant in Ukrainian scientific research. It’s worth noting that some have even managed to unify different, and sometimes even mutually exclusive (in terms of content), meanings of “service” and “welfare” components of public policy in the artificially-created term “socially-oriented service state policy”, interpreting it as a “coordinated system of actions involving development, implementation and control of priority areas of public policy, aimed at satisfying the needs of the public in access to public goods, aligned with long-term goals of development of the society and the state” [6].

Considering the contradiction concerning understanding by public authorities of the significance of governance services sphere in the concepts of traditional administrative management and the new public management, determination of the primacy of “service” or “welfare” state becomes a subject of discussion. Let’s find out which one of these notions has a wider meaning in the aforementioned terminological field of study.

According to the authors’ opinion, service state in which service-oriented policy is formed and implemented is always a welfare state, because it is the service sphere by which the society judges the sociality of public administration, i.e. services are provided on social terms. At the same time, it’s worth noting that services that have solely social orientation represent one of the varieties of services provided by public authorities, which are classified according to the sphere where these services are

provided. However, welfare state policy may not be a service provision policy, if we look at support of social sphere as a duty of the state (on the basis of traditional paternalism). Therefore, within the context of traditional concept of administrative management, sociality of the state is ensured, first of all, by legislative acts and bylaws and activity of public authorities and authorities of local governments, while services provided by public authorities become just one of the auxiliary functions of public administration; among them, the following remain base services: organizing, planning, coordination, controlling, etc. Innovations in e-Governance play only the role of technologies of providing these services in electronic form.

Summing up the role of services provided by public authorities in a welfare state in accordance with the classical theory of administrative management, we'd like to cite the opinion of another scholar I. Bachilo, who believes that welfare state may be regarded as service state only to a certain extent, if it does not exhaust the functions of public authorities that provides conditions for citizens and organizations to exercise their social and other rights [7].

The concept of new public management gives services a totally different role, according to which, provision of these services by public authorities is a base function of the state, i.e. any activity of the state is service-based. In other words, all traditional functions of public administration are engaged to implement a service-oriented public policy, or functions of public administration are identified with functions of governance services provided by public authorities [8].

This trend is observed in every direction of public administration system in Ukraine. We can easily notice it in customs regulation as well. Considering the order of information exchange between State Fiscal Service of Ukraine and enterprises according to single-window system [9], any enterprise makes a decision about electronic declaration of goods through just sending a message with requisites of preliminary declaration, arrival date and time of checking goods by customs controller.

After receiving message and scanned copies of documents from an enterprise information system checks requisites of preliminary declaration and electronic digital signature of enterprise's executive and transmit this information to corresponding customs controller. Whereupon information system reports an enterprise the results of electronic digital signature verification or mistakes in requisites of preliminary declaration. Such system allows enterprises to avoid queues on borders and save significant time [10]. The efficiency of this service-oriented administrative tool we are able

to observe from dynamics of applying for single-window system by Ukrainian enterprises (table 1).

Table 1

Applying for single-window service-oriented system by enterprises at customs in Ukraine

Regional customs	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017
Kyiv city customs SFS	184	426	455	594	751	455	688	567	569	765
Zhytomyr customs SFS	59	533	1418	1743	1567	1336	1714	1656	1393	1295
Chernihiv customs SFS	9	104	541	1232	1393	1278	1682	1854	1582	1750
Dnipropetrovsk customs SFS	66	886	1628	2452	2743	2492	3067	2895	2843	3153
Zaporizhzhya customs SFS	16	93	441	1468	1610	1296	1816	2041	1702	1616
Kyiv customs SFS	138	1775	3260	4170	4425	3316	3796	3567	3170	3756
Rivne customs SFS	12	237	1157	1553	1493	1383	1566	1660	1310	1428
Volyn customs SFS	4	123	316	437	1910	3073	3913	4460	3642	3536
Ivano-Frankivsk customs SFS	45	197	459	1228	1609	1985	2611	3002	2492	2749
Lviv customs SFS	57	119	248	2167	2401	1878	1980	1655	1342	1529
Zakarpattya customs SFS	-	65	215	526	714	974	1061	1323	1179	1064
Khmelnitsky customs SFS	14	189	146	139	132	113	206	94	107	103
Vinnytsia customs SFS	12	259	406	548	408	372	714	821	731	785
Ternopil customs SFS	4	47	368	345	821	1040	1263	1240	958	863
Chernivtsi customs SFS	94	182	906	1371	1228	922	1165	1528	1235	1515
Odessa customs SFS	4	32	446	890	960	364	569	814	681	872

Mykolaiv cus- toms SFS	23	238	307	323	353	322	399	344	352	371
Kherson cus- toms SFS	2	23	13	57	533	523	725	946	845	819
Donetsk cus- toms SFS	22	185	894	1340	1314	1052	1398	1403	1422	1510
Luhansk cus- toms SFS	30	397	442	560	517	328	487	722	679	814
Sumy customs SFS	6	78	211	652	524	488	417	511	572	546
Poltava cus- toms SFS	14	231	355	337	247	945	1356	1455	1079	1129
Kharkiv cus- toms SFS	10	174	629	1018	1367	1197	1762	1894	1705	1677
Kirovohrad cus- toms SFS	1	52	96	121	165	99	316	210	262	214
Cherkasy cus- toms SFS	47	765	1010	1218	1284	1373	1512	1673	1418	1555

The main conclusion to be drawn from this discussion is that all traditional functions of public administration are engaged to implement a service-oriented public policy. This trend is observed in every direction of public administration system in Ukraine as well as in customs regulation (service-oriented single-window system).

That is why authors regard concept of governance services in Ukraine as the result of formation and implementation of a service-oriented public policy to pursue interests, guarantee rights and meet the needs of both the society and the individual citizen.

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The value of the business and its valuation in Ukraine

Abstract: The article deals with the pragmatic aspects of the value model essence of the company's performance evaluation. The comparative analysis of the evaluation models of the Economic Value Added, Cash Value Added was made. It was proved that using the EVA in planning, monitoring and analyzing the agrarian companies' performance helps managers to understand in the best way what decisions lead to the value creation and what it absorbs.

Keywords: business value, value based management, economic value added, cash value added.

The modern processes of the economic restructuring in Ukraine show that among the many problems that are the most acute and controversial and require a radical solution, there are problems of an effective development of the companies in the agrarian sector. The agrarian sector has the significant export potential, affects the food and economic safety of the state, but it does not work at all possible capacity at the current stage of the Ukrainian economy development. Thereby increasing the efficiency of agrarian business becomes particularly relevant.

The practice of corporate finance management of Ukrainian companies indicates a low level of using the effective management methods. The traditional financial model is characterized by narrow focus - only the material factors are taken into account in determining the effectiveness; limited informativeness - changes in the value of owners' capital are not taken into account; relative accuracy - the accounting data does not give an accurate picture of the current state of the company [1, p. 235]. An alternative to the traditional financial model is a value based model for evaluating the company's performance, according to which the success of the company is associated with an increase in its value.

In the Western scientific and practical literature, the concept of value-oriented management approach was called Value Based Management (VBM). In the Ukrainian science and practice literature, VBM is often indicated as value management or

financial management based on value management. Within the framework of the VBM concept, key factors of enterprise growth value are explored [2].

The basis of the value approach to managing the company's finances is the valuation of a business. This is one of the most complex tasks of corporate finance and controlling, which gives opportunity to determine the competitiveness and success of the company in the market and is an indicator of its development. The problems that arise in business valuation are related to asymmetry and limited information, the absence or weak development of the domestic stock market, the high uncertainty of long-term planning, and the change in the value of assets, depending on the purpose of business valuation.

The most common approaches to valuation of a business are asset-based, earning value and market (comparative) approaches [3].

Each approach allows to emphasize certain characteristics of the evaluation object. Thus, asset-based approach is appropriate to use for valuation of enterprises that own assets of various kinds and in the case if the business does not generate a stable income.

The comparative approach should be used if there is an active market for similar assets. The accuracy of the evaluation depends on the quality and accuracy of the information regarding the recent sales of such objects. It takes into account economic characteristics, sales time, location, terms of sale and financing. The objectivity of this method is greatly reduced if sales of similar assets during the indefinite period were low or if the market is in an abnormal state - because rapid market changes lead to distortion of the data [4, p.186].

Since the business valuation is considered by us from the point of view of using VBM, which involves optimizing financial decisions as a result of the analysis of key factors in the growth of enterprise value, it is worth to focus on those approaches that take into account future prospects of the company's development and indicate the generation of value.

The main financial indicators that characterize the enterprise value and its change include:

- 1) Indicators of profitability - characterize the change in value (Return on Invested Capital (ROIC), Cash Flow Return on Investment (CFROI));
- 2) Residual income - evidence of residual (over-expected) profit and used to determine the absolute change in value (Economic Value Added (EVA), Economic

Profit (EP), Cash Value Added (CVA), Earnings less Risk free Interest Charge (ERIC));

3) Indicators based on the market price of corporate rights - reflect investors' assessment of the company's performance (Earnings per Share (EPS), Price-Earnings Ratio (P/E Ratio), Price-to-Sales Ratio (PSR));

4) Total value indicators are used to calculate the total value (Discounted Cash Flow (DCF), Market Value Added (MVA)).

Leading Western consulting firms have developed several alternative approaches to evaluation the business effectiveness, which, according to many experts, measure the performance of companies more successfully than traditional accounting models based on profit and return on capital. The most common models are follows:

- model EVA has been introduced by the consulting company "Stern Stewart & Co";
- model CVA has been introduced by the consulting company "Anelda AB".

These models make it possible to evaluate both the company as a whole and its individual units from the point of view of value added, besides, they can be integrated into a motivational system that helps to reconcile the interests of owners and managers.

It should be noted that the main criterion for making value decisions remains unchanged when using the two indicators of business efficiency – value added is created only if the financial result exceeds the income expected by investors in accordance with the level of accepted risk.

It is worth paying attention to the fact that the value added which is created during a certain period of time, characterizes the operational efficiency of the company, that is, the efficiency of the available assets using. However, from the perspective of investors, the positive value added may not be sufficient (or a negative value is satisfactory), since:

- investors compare received income not with the book value, but with the market value of the capital invested in the company;
- the investors' income consists of not only the current operating profit, but also of the value change of future income expectations (future growth value).

As a result, for example, the negative EVA may satisfy the interests of investors if a significant increase in future corporate profits is expected, which is a conse-

quence of decision-making in the current period, and the company is accordingly in a stage of rapid growth. In this case, the expected return on investors will be achieved by increasing the estimated EVA future periods [5].

Therefore, in order to correctly assess the company's performance over a specific period of time, it is necessary to compare the calculated EVA with the target value of the given indicator. The EVA target amount is calculated based on the market value of the capital invested in the company at the beginning of the estimated period, and the prospects for the future business development. The indicated amount should ensure that investors will receive the return on investment from the invested capital at the level of capital expenditures; in addition, the target amount of EVA can be both positive and negative. This disadvantage is also typical of the CVA, since this indicator is also calculated on the basis of the book value of the capital employed and does not take into account the projected change in value.

The CVA is calculated on the basis of the operating cash flow. Within the framework of this concept, all investments of the company are classified into strategic and current ones. The strategic investments, according to one of the developers of the model - F. Westendrider, include investments which purpose is to create a new value for shareholders, for example, the construction of additional production capacities, investments in the development of new products or market development. Current investments do not create a new value, but contribute to the ability of the strategic assets of the company to generate operational cash flow. That is why it is more expedient not to capitalize current investments, but to attribute to expenditures of the current period [6, p. 5, 27-28].

Since the value added of cash flow characterizes the cash flow generated by the enterprise above the expectations of investors, the CVA calculation is the difference between the Operating Cash Flow (OCF) and the Operating Cash Flow (OCFD).

The OCF is calculated as the sum of operating profit of the company, depreciation deductions, changes in the amount of working capital over the period, minus current investments.

The OCFD indicator is calculated as the amount of investors' claims to the amount of operational cash flow in the context of each strategic investment of the company. To calculate the OCFD for a specific strategic investment, it is necessary to know three parameters: the term of the investment cycle, the amount of initial in-

vestment and the price of capital employed. The amount of annual operating cash flow required to ensure that the investment project has a zero net present value (NPV) is calculated on the basis of these indicators [7, p. 114].

Thus, according to the CVA model, the difference between OCF and OCFD is the value added created by the company for its owners.

To substantiate the choice of one of the considered indicators as a key criterion for the effectiveness of the company's activity and the base for constructing a motivational system, we will perform a comparative analysis of the EVA and CVA evaluation models for several important characteristics (Table 1):

Table 1

Comparative characteristics of EVA and CVA models

Characteristics	EVA	CVA
Base for calculation	Accounting profit	OCF
Taking into account cost of capital	Included	Included
Absolute or relative indicator	Absolute	Absolute
Adjustment for inflation	Possible	Possible
Complexity of calculation	Low / medium	Low / medium

The basis for EVA calculation is the company's operating profit, while for the CVA is OCF.

One of the main arguments of the CVA model supporters is that the assessment of the company's performance does not depend on accounting methods of assets depreciation. Within the EVA model, this issue is solved by using the method of economic depreciation of assets.

However, the using of CVA for evaluation company's performance also involves certain problems. The low level of the CFO can be indicator of inefficient management of current assets or to be a consequence of the company growing activity. An increase in production and product sales usually leads to accumulating company's inventories, extending the terms of the commodity credit provision, that is, to increasing the value of net working assets. Thus, the amount of operational cash flow depends largely on the phase of company's development.

The following benchmarking criteria are taking into account the cost of capital and the nature of the indicator. At the heart of both models are absolute indicators, calculated in monetary terms and minus the raising capital costs.

As for the inflation criterion, both indicators are usually calculated without taking into account inflation, which, of course, reduces their quality. Nevertheless, both models provide for the possibility of implementing additional corrective procedures for the adjustment of inflation.

The degree of complexity of the efficiency indicator calculation may have little effect in terms of financial analysis (especially in the presence of software products that allow for complex financial calculations), but it is very important in developing a compensation system for managers. An increasing of the calculation method complexity negatively affects the perception of criterion by managers. A complicated indicator may impair managers' understanding of the indicator nature and factors that affect the end result. As the result it can lead to the reduction in the manager's motivation in achieving their goals.

The complexity of calculating CVA and EVA can be assumed to be approximately the same. However, advocates of using the CVA method argue that the calculation of EVA is much more complicated process. The main argument is that Stern Stewart & Co claims 164 potential adjustments that are used to eliminate numerous accounting conventions. Of course, a large number of adjustments to accounting data leads to methodology complication for calculating the financial indicator and reduces its practical significance [7, p. 54].

However, the arguments which were put forward by the critics can not be fully justified. First, in a particular company, it is usually recommended to make only several adjustments that have a significant impact on the quality of the EVA. Secondly, some adjustments made in the EVA calculation, similarly relevant for the CVA calculation (for example, capitalization of the company's research and development costs). Therefore, the complexity of both models is comparable.

The arguments in favor of choosing an EVA model for assessing the company's performance and constructing a compensation system are, firstly, the fact that this model is more theoretically developed and popular in corporate governance practices than the CVA. As a result, considerable experience has been accumulated in the practical use of the EVA model, identified problem issues, bottlenecks and developed possible solutions for its elimination.

Secondly, the company's performance indicator based on profitability is more understandable and convenient for investors. As communication with the company's investors is an important element of the overall corporate governance system, the use of more familiar indicators in managerial bonus plans, increases the level of trust to the system of managers' motivation and, accordingly, strengthens confidence that the company acts in the shareholders' interests, trying to reduce agency costs.

The EVA benefits comparing to the traditional enterprise financial performance (profit and return on capital) are evident. The managers' focus on maximizing such indicators as ROI, ROE, or EPS may lead to the decisions that will result in the acquisition of stock value. The evaluation company's efficiency based on the EVA calculation promotes the formation of managers responsible not only for the amount of income received, but also for alternative capital costs used to generate this income.

Additional benefits can be obtained by using corrective procedures when calculating EVA. The adjustments allow avoiding unwanted distortions of financial results that arise from various accounting methods and minimize the potential threat of reporting data manipulation from the company managers' side [8].

Using the EVA model as a tool for evaluating the business management effectiveness and the base for building managerial bonus plans helps managers to better understand the key factors through which the company creates value. So, you can find out that EVA is increasing if two other parameters are unchanged and:

- growth of NOPAT, which is provided by increasing the efficiency of operating decision making (in managing costs, accelerating the turnover of capital);
- reducing the WACC by increasing the effectiveness of financial decisions regarding the structure of capital;
- an increase in the IC (business expansion), provided that additional capital is invested in those projects whose return on investment exceeds the cost of invested capital;
- IC reduction (sale, liquidation of business segments), provided that the return on invested capital in the projects does not cover the costs of its involvement.

A distinctive feature of the EVA is its ability to use both to assess the investment attractiveness of the company as a whole, as well as individual segments of activities, centers of responsibility, structural business units or investment projects.

Consequently, value oriented performance indicators are characterized by a higher level of objectivity than profit indicators, because they are based on factors

that are difficult manipulated. Motivation and management company systems should be based on value oriented performance indicators which allow harmoniously to combine the interests of managers and investors. Using the EVA in planning, monitoring and analyzing the results of agrarian companies' operations allows managers to focus their attention on the entire list of operational, financial and investment issues, helping them to understand in the best way what decisions lead to the value creation and which absorbs it.

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Analysis of consumer rights protection law in Ukraine

ABSTRACT: The article explores the problematic nature of law in Ukraine through generalizing the number of academic views on a complex regulatory institution. Adopting a legal analysis, the article considers a place of the consumer rights protection law, its objectives, and importance of Civil law and the private-law and public-law elements in the complex institution designed for exercising and protecting consumer rights. It is concluded that although the consumer rights protection law has its certain position in the legal system of Ukraine, there is a need for improvement through harmonization of the rules of all law branches involved and development of effective civil-law regulatory means.

Keywords: consumer rights protection, complex law institution, civil law relationships.

The law that secures the principles of legal consumer's position among other parties in civil relationships constitutes a complex legal institution. [6, 91]

A place of the law in the legal system of Ukraine and its objectives of protecting consumer rights is a constituent of more general problem, in particular recognition of existence of complex regulatory institutions not only in the legislative system, but also in the law system, including correlation of these systems. [6, 94] The existence of complex inter-branch institutions that regulate various intertwined social relationships, as commonly consolidated in the specific source of law, has gained general academic recognition. However, some opponents consider the institutions as integrated into the legislative system rather than in the law one. Others deny the characteristics of such elements as branches of law¹. They argue that complexity is not inherent in a law system on the levels of law branches and their segments. "It is law

branch nature as a category of social reality that excludes possible existence of complex law branches". [1, 32] Some academicians also admit that it is true of complex law branches. Yet they support the existence of complex law institutions in the structure of law, that is, recognition of complex institutions is quite different from recognition of complex law branches. [3, 421] Other researchers insist on necessity of specifying complex regulatory institutions, in particular a comprehensive whole of legal rules, which takes a certain place in both legislative and legal systems. The corollary of this is that secondary law structure may exist [3, 418] and it may consist of different regulatory institutions: branches, sub-branches and institutes. Moreover, their inherent complexity is evidence of "polymery" of a legal system, i.e., its polystructural properties. According to Alekseyev S.S. the very fact of separation of respective legislative spheres means that certain specifics are in the content of legal regulation and that the complex institutions are separate "not only due to the presence of independent regulatory acts, but also due to the fact that these acts have assisted with approving rules, drawing up general provisions and regulation methods, and regulatory materials as consolidated in regulatory generalizations". [5, 55] In the current law the above complex institutions are caused by development of industry, energy and other sectors of mass production and service that require implementation of various technical and organizational regulation methods which condition specific legal regulatory means of new relations in these industries. As for the complex consolidations of legal rules it is important to integrate the regulations diverse in their primary de jure differentiation depending on the peculiarities of a sphere subjected to legal regulation rather than to isolate the law branches differentiated in law. In contrast to the separated law branches that indicate the differentiation process in legal regulation, "complex law arrays" call for integration of different social and legal institutes under present-day conditions. Stressing on the significance of secondary institutions in the legal system, Alekseyev S.S. classifies the institution regulating relationships that concern personal needs of citizens [5, 156], i.e., in the contemporary terms, a complex institution aimed at regulating social relationships in order to exercise and protect consumer rights. This legal unity is typical of complex legal institutions since the rules consist of components from different law branches, and subsequently have own legal orientation and "vertical" hierarchy. The unity comprises the principles of diverse areas, in particular the constitutional ones that provide for the rights of citizens to health protection, education, public association including the ones

that ensure observance of the rights under Chapter 2 of the Constitution of Ukraine on Human and Citizens' Rights, Freedoms and Duties; provisions of criminal and administrative laws that establish responsibility for fraud against consumers and other relative violations. [2] Such approach is necessitated by comprehensive regulation of consumer rights protection, development of efficient legal mechanisms, applicable methods and techniques of different law branches. Actually, the relationships regulation of the consumer rights heavily relies on the Civil law provisions, mainly the Civil Code of Ukraine and the Law of Ukraine on Consumer Rights Protection. There is the number of reasons that Civil law is at the core of the legal regulation under discussion. First, as the principal relationships in this area involve property and have individual non-property nature they are subject to regulation by civil law. A consumer is a party to the above relations liable in civil law. Second, Civil law is highly appropriate for the regulation at issue due to its mechanisms providing such means and techniques that, on the one hand, secure mutual interests of the parties to the civil relations and, on the other hand, protect interests of a consumer as a weak economic party to the legal relationships. The civil legal principles are the core of this regulatory institution since they are designed for regulating property and non-property relations under the dispositive principle and the principles of legal equality and independent will.

The civil relationships where a consumer is a party are governed by the legal rules of different institutions: Agreement of retail purchase and sale, Agreement of rendering of services, including repair work, Agreement of indemnity, to name a few. Moreover, the provisions of Part 1, the Civil Code of Ukraine specify legal foundations of civil relationships of citizens and organizations and general requirements for enforceable civil-law contracts, and other relative issues. Thus, the corollary of this is that the civil law structure contains a special system of the rules on exercising and protecting the consumer rights in the civil relationships. Although these rules are found in different civil law institutions, they run through the whole system, and a complex nature of the system is another argument for the above point. On the other hand, this comprehensive whole of the rules is at the core of Civil law which is a complex branch and at the same time a civil-law institution [8, 312], and consists of the rules of different civil-law institutions. The common feature that unites these rules is a specific subject of the civil-law relationships that is a consumer entitled to the opportunities under law. Such dispersion of the rules on the civil law relationships

with consumers as a party is necessitated by the systematized placement of the rules according to the different kinds of civil contracts which do not imply the absence of the relationships community.

Thus, relationships between a consumer and a contractor are the ones grounded on equality and autonomy of the parties' will within personal property independence of the subject. So far as consumer protection is concerned both civil law and public law are important. For example, major offences impose administrative and criminal responsibilities. Moreover, preventive means are appropriate in certain cases including goods compliance with safety standards, product certification and etc. The consumer rights protection law provides for administrative safety requirements and responsibilities for the breach of safety standards by manufactures (contractors). It should also be emphasized that the methods applied in the area at issue are mainly characteristic of Public law that explains the unity of private-law and public-law regulatory elements. It leads to a legal consumer protection regime which is based on the most optimal consolidation of the private-law and public-law elements. Consequently, it makes possible to apply a complex approach to consumer protection, and primarily distinguishes a complex and multi-branch nature of the regulatory institution. [6, 92]

Therefore, along with the characteristics of the civil-law method including initiative of the parties concerned, "permissive" and dispositive features of the civil-law regulation and the parties' equal legal positions are crucial for an enforceable contract. [7, 213] Moreover, a great number of imperative provisions and predominant instructions are of binding or injunctive effect. The view put forward above suggests that the law consolidation is developing as a complex regulatory institution under the rule of Civil law where public regulation is indispensable to consumer rights protection. That's why it is imperative for this sphere to be improved on two tracks simultaneously: first, harmonization of respective rules of different law branches and, second, betterment of the civil-law regulation means of social relations where a consumer is a party. The rules of this institution differ in the branch orientation as well as in the juridical one. These rules include the regulatory principles for consumer rights, mechanisms of exercising these rights and controlling the relationships, and also the consumer rights protection laws directly intended for protecting, enforcing and restoring consumer rights, establishing reasons and responsibilities for relative infringements, i.e. protective rules. The civil law, in particular its legal principles of the institu-

tion at issue, is designed primarily for appropriate organization of property and non-property relations between participants in the civil law turnover as well as for combating wrongdoings while the criminal and administrative laws serve this purpose. Some scientists define this notion as protection of a subjective right and interest at law. [6, 93] Related to the above arguments is the conclusion that the common notion of the consumer rights protection legislation does not reflect the essence of the legal phenomenon since the notion includes the legal principles of the relationships regulation in order to exercise and protect consumer rights whereas the latter is referred to the broader notion of right protection. The heavy reliance on this notion may be caused by its ability to reflect a main orientation of the legal principles comprising the regulatory institution. More precisely, it implies special enhanced protection of the rights of such a specific subject as a consumer. Taking into account that this notion is also a common title of rules, it is advisable to keep on using the consumer rights protection law.

To some up, it is possible to assert that the legal system of Ukraine has a special regulatory institution that is a complex law one designed to regulate the relationships in order to exercise and protect the consumer rights. A considerable public concern in protecting the legitimate rights and interests of consumers who are an economically weaker party admits of consolidation of the private-law and public-law elements within this institution that makes it a complex whole where the Civil law is a major source. All of this points to the fact that this institution is a private-law one supplemented with the public-law elements. As its rules have both regulatory and protective orientations, this regulatory institution is aimed at protecting the consumer rights. The rights at issue are protected by consumers themselves through enjoying opportunities in exercising their legal rights and civil-law remedies as well as by means of respective public and social authorities and organizations. This law institution has an important place in the legal system of Ukraine as it has its own object, a definite area of social relations, to be regulated.

The analysis of the law regulation specifics of the relationships where a consumer is a party leads us to the following conclusions:

The law on consumer rights protection has developed through the number of stages. The Approval of the Central Committee of Ukraine and the Law of Ukraine on Consumer Rights Protection contributed much to its evolution by establishing a set of special consumer rights and legal opportunities.

The analysis of the current legal regulation is evident that the consumer rights protection law requires improving, chiefly filling the gaps and eliminating antimony in the respective provisions.

The consumer rights protection law defines the subject to be governed as social relationships which meet the criteria established by the above law. The number of these statutory relationships tends to expand while their content is steadily evolving.

The complex law institution is founded by the system of the rules specifying the peculiarities of a consumer's legal position. An important role of Civil law in this area allows to state that Private law is a basis of this civil law institution along with the public-law elements which provide extensive and enhanced protection of consumer rights and its comprehensive character.

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Methodology for assessing the sustainable social and economic development of cities, taking into account the systems approach

Abstract: The research is relevant due to the problems of sustainable development of the modern city. This article is aimed at identifying the need for an ideal model of the city. The main method of research of this problem is the system method. This method comprehensively considers the study of green economy in the modern city. Also, the system method reveals the diversity of cause-effect relationships and relationships within the system under investigation, and in its interaction with the external environment. The article presents a methodology for assessing the sustainable social and economic development of cities, taking into account the system approach. The basic conditions for sustainable development of the city have also been identified and justified. The materials of the article are of practical value for the authorities at the regional level in making managerial decisions on the sustainable development of the region.

Keywords: modern city, eco-city, sustainable development, system approach.

1. Introduction

Nowadays most cities are in crisis and such cities do not meet the modern requirements of the new economy. Some cities, previously considered industrial regions, lose its power and attractiveness, others decrease, losing the population. In

the current situation, the transformation of territories has become an urgent development problem for many countries. The government begins to understand that the entire system of urban life is determined by the prospects for the realization of human potential.

Urbanization of cities is one of the most important trends in the development of the modern world. This trend refers to the most impressive result of social development in recent years. At the same time, urbanization has become one of the central problems of regional science. Accordingly, when developing a new scenario for urban development, it is necessary to use the methods of economic sociodynamics.

Modern cities are the source of civilization. At the same time, the city is one of the main culprits in the destruction of the environment. The main task of humanity is the ability to transform a modern city in order to create a center for sustainable development. Therefore, the evaluation of the conditions of a sustainable socio-economic state of cities is relevant for the development of the region from the position of a system approach.

2. Literature review

The problem of worsening living conditions in cities arose in the second half of the 19th century in connection with the intensive development of industry and scientific and technical progress. The need for large quantities of water, food, fuel and building materials arose from the rapid development and enlargement of industrial cities entailed. Environmental pollution processes began to arise everywhere.

According to the Polish urbanist T. Tolvinsky, in the middle of the twentieth century, a crisis of cities came. This crisis has forced a new look at the future economic-economic model of urban economy.

In the modern economy, a new field of research is emerging, dealing with the relationship between natural ecosystems and socio-economic systems in the broadest sense. The green economy solves modern human problems, as well as the problems of constructing an "eco-city."

The term "eco-city" was first introduced by the American builder and ecologist Richard Register in 1978. According to the scientist, "eco-city" is an ecologically clean city. At the present time, the definition of R. Register began to be considered as a city that is capable of providing itself with food and energy with a minimum area [7].

According to the Russian scientist A.N. Tetiora, "eco-city" is a city, built on the principles of environmental friendliness in ecological balance with nature. It is not torn

away by natural ecosystems. It does not pollute the nature. It is permeated with green corridors with niches for the life of wild animals. "Eco-city" has ecological buildings and ecologization of all activities of people in the city. Also, in the "eco – city" is a high quality of life, a system of ecological education, education and involvement of all residents in the process of ecologicalizing their lives and activities [6].

3. Research methodology

The goal of the study is to plan, design and build a structurally unified eco-city, taking into account the process of its metabolism and functional stability through the cultivation of an ecological landscape, an environmentally friendly industry and an eco-friendly culture [3].

The following research objectives can be distinguished from the above goal:

- A) development of the eco-city model based on the socio-dynamic multiplier;
- B) evaluation of the developed model with the help of an integral indicator in the form of calculation of the urban development index.

The use of a systematic method will allow to consider the green economy as an unstable phenomenon from the position of system analysis and synthesis. The use of the system method in this study will make it possible to conduct a comprehensive study of the green economy in a modern city as a whole and to reveal the variety of causal relationships and relationships that take place within the research system and its interaction with the external environment. The system method in this study will allow us to apply various interdisciplinary methods of various sciences. Thus, it is supposed in a complex with the system approach to use the conceptual analysis to achieve the results of the research. Conceptual analysis will help solve the task of developing a methodological strategy for studying the socio-economic space of a modern Russian city. Based on the analysis and synthesis method, it is possible to define the city as a natural-adapted model formed using a socio-dynamic multiplier.

Urban space is considered as a space consisting of areas where different buildings such as residential buildings, enterprises, schools, shops, service stations can be erected. These construction or liquidation processes are assumed to be relatively fast and controlled by a slowly changing urban environment. An important role in this process is the migration of the population between the suburbs and the city.

It will be ideal for city planners to develop and implement long-term development plans for the city. However, a long-term plan is not always possible due to the following reasons.

In the short term, many competing and contentious interests of individuals and groups influence the planning process and make the result partly unpredictable.

Unforeseen (force majeure) events, such as unplanned immigration or various kinds of disasters, can frustrate planned events.

In the medium term, the ideas of planners, like the styles and ideologies of architects, change for at least several decades, together with the "spirit of the times". The old cities in general demonstrate a mixture of styles and functions due to the fact that the period of existence of urban structures is longer than the period of existence of the "spirit of the times" or fashion.

Due to the above reasons, the required model design of urban dynamics can include two stages of research:

A) the stage on urban planning trends;

B) the stage associated with elements of randomness in the adoption of town-planning decisions.

The socionodynamic modeling procedure considers both stages. The probabilistic transition intensities that determine the main directions, and the stochastic realization of the stepwise evolution of the city, are the central elements of model design. Obviously, these intensities should depend on the utility of the influence groups participating in the adoption of joint decisions. Here the concept of "utility" combines the influence of aesthetic, social, economic, environmental points of view, as well as the influence of material interest. The choice of utility functions that affect the urban configuration and determine the shape of the transition intensity is also an important element in the procedure for constructing the model [5].

Eco-city is an integrated model of the evolution of the city and the population, consisting of two types of variables describing the urban system and population:

A) material variables characterizing the urban configuration;

B) personal variables that characterize the configuration of the population, the distribution of the population in the city and the suburbs.

Material variables are the area of the whole urban landscape under consideration. Each area is small enough to be homogeneous, but large enough so that a significant number of different objects can be built on it. The whole landscape is divided into the urban part and the suburbs so that each playground belongs to one of these parts. In the socio-dynamic model of eco-cities, the suburbs are in the role of an ecological belt.

The size of the ecological belt depends on the population and the level of development of industrial production, since the task is not only to maintain the ecosystem, but also to create conditions for the full development of the socioeconomic system of the city.

Over time, the city can expand or shrink, so that areas can change over time. Each site has a certain capacity, which makes it possible to build various types of buildings or road infrastructure on this site. All types of buildings are subdivided into building units, the capacity is an integer that determines the maximum number of structures that can be built in a certain urban area.

The sociodynamic model of the eco city in a formalized form is a system of equations consisting of two subsystems. The general configuration of the macro variables is as follows [25]:

$$V = \{ \dots; m_i, N_i; \dots; m_j, N_j; \dots \} = \{ m, N \} \quad (1)$$

where V – the sociodynamic model of the city;

N – population of urban area;

m – the urban configuration;

i – elements of the life support system in urban areas;

j – infrastructure in urban areas.

The evolution of urban configuration is more complicated process. In this process, more variables are involved than in the migration process of the population between the suburbs and the city.

The developed model of "Eco-city" presupposes the creation of conditions for a stable state of the city, based on three following main aspects: economic, social and environmental. Ignoring one of them inevitably leads to a deterioration of economic well-being and socio-ecological comfort of the territory. Therefore, the procedure for comprehensive assessment of the equilibrium of an effective urban environment should include the definition of three criteria: economic, environmental and social.

Economic policy should be aimed at increasing the level, quality of life of citizens and creating conditions for an effective urban environment. Criteria for socio-economic development of the territory are indicators of assessing the level and quality of life of the population, its correspondence to the parameters of a new scenario for the development of the modern city.

The methodology for assessing the level and quality of life of the population is an important analytical tool that allows:

- to establish the guidelines of socio-economic policy for the future;
- to analyze the current level of socio-economic development;
- to conduct interregional comparisons of the level and quality of life of the population.

Nowadays two approaches are used to assess social development. The first is connected with the use of social indicators, taking into account the peculiarities of national systems, based on the methodological recommendations of international organizations. The second is to calculate the composite index based on selected indicators used by the United Nations and other international organizations to carry out cross-country comparisons of the level and quality of life of the population.

The classical method of assessing sustainable development is the method of H. Bossel. This method provides a way to determine the viability of various subsystems and their contribution to maintaining the viability of a common system using indicators that reflect the relationship between the speed of threat development and the speed of response of the system. A graphic interpretation of this technique is the construction of a "orientor star" on rays bounded by a single circle. It is proposed to note changes in the quality of subsystems.

We use the information model of H. Bossel to assess the sustainability of the city's development. It is necessary to know the dynamics of the change in the quality index for a city characterizing the state of the city as a system as a whole to assess its development. This can be a complex integrated indicator or index. It can be proposed a city development index as such an indicator of the state. The city development index is used in world practice for assessing the development of cities. The value of this indicator varies from 0 to 100. The value of the indicator is closer to 100, the higher the level of development.

Various systems of indicators used in the world and domestic practice for assessing the development of socio-economic systems at different levels were examined. Quantitative indicators of the level and quality of life is the national income per capita, the level of income and its distribution in society, the level of consumption of various material goods and services by class of goods, the level of employment, etc. Qualitative indicators of the level and quality of life include indicators of working conditions, everyday life and leisure of a person.

One of the main places is the task of combining three criteria that reflect the ecological, economic and social characteristics of the region, into a single assessment. In carrying out the socio-ecological and economic assessment of a new model for the development of a modern city.

We solved this problem in three stages:

1. Conversion of criteria into indicators having one interval of possible values.
2. Comparison of each of the indicators with its maximum allowable value.
3. Combining the three indicators into a single assessment.

In the first stage of the merger, each of the three calculated criteria is transformed by us in such a way that the range of possible values is determined by the interval from 0 to 1. Using the exponential function, we obtain values varying from 0 (worst state) to 1 (best state). In the table the matrix of indicators of an estimation of stability of model of a modern city in system of regional economy is presented.

Table 1. Matrix of indicators for assessing the sustainability of the modern city model in the regional economy

Main criteria of city sustainability	Indicators	Intervals	Integral indicators (indices)
1. Criterion of individual development of the city	1. The level of literacy of the city's population 2. Consolidated contingent of students in institutions of I-III levels of education	0-100 % 0-100% of the number of students of the corresponding age	Education indicator I_1 (0-1)
2. Criterion of social development of the city	1. Expected duration of life at birth 2. Infant mortality 3. The coefficient of vitality of the population	25-85 years old 0-32 ppm per 1000 newborns 0-1000 ppm per 1000 population	Indicator of vitality I_2 (0-1)
3. Criterion of economic development of the city	1. City product 2. The coefficient of income concentration 3. Level of employment of the population	100-40000 \$ 1-0 0-100% of the total number	Indicator of material security I_3 (0-1)
4. Criterion of infrastructure of the city	1. Share of living space 2. Share of housing improvement	0-100 %	Comfort indicator I_4 (0-1)
5. Criterion of ecological development of the city	1. The fraction of purified water 2. The proportion of neutralized waste 3. Proportion of purified pollutants	0-100% of the reset; 0-100% of the produced; 0-100% of the emission.	Indicator of environmental safety I_5 (0-1)

The choice of indicators from the list of available lists was based on a global orientation on sustainable development and the conceptual structure of the city's system for providing living conditions and human development. In order to reveal the patterns of socio-economic development, belonging to a certain point in time, the indicators we have divided into two types. First, it is positive indicator. The growth of these indicators characterizes the increase in the level of socio-economic development. The second indicators are negative. The growth of negative indicators indicates a decrease in the level of socio-economic development.

The reduction of indicators to a single scale was carried out by standardizing values according to formula (2), which allows us to move to dimensionless quantities:

$$X_{ij} = \frac{x_{ij} - \min(x_{ij})}{\max(x_{ij}) - \min(x_{ij})} \quad (2)$$

where X_{ij} - the standardized value of the j indicator for the i object;

x_{ij} - the value of the j index for the i object,

$\min(x_{ij})$ - the minimum value of the j index for the i object,

$\max(x_{ij})$ - the maximum value of the j index for the i object.

A generalizing synthetic indicator for a city or region is found from standardized values using formula (3).

$$I_{\text{ГOP}} = \frac{1}{m+k} \left(\sum_{j=1}^m X_{ij}^{(p)} + \sum_{j=1}^k (1 - X_{ij}^{(n)}) \right), \quad (3)$$

where $I_{\text{ГOP}}$ - an integral indicator of the city system;

m - number of positive indicators;

k - number of negative indicators;

$X_{ij}^{(p)}$ - the standardized value of the j indicator of the positive indicator for

the i object;

$X_{ij}^{(n)}$ - the standardized value of the j indicator of the negative indicator for the

i object.

Such a construction of the indicator will allow us to reflect the significance of each of the components of the socio-economic and ecological system taken into account in fulfilling the objective function. Changing any of the individual indicators leads to a change in the value of the generalizing indicator and fixes the change in the steady state of the region.

The index of development of the city (region) is determined at the level of the region and can serve as an indicator of the average level of welfare of citizens and their provision with urban amenities. The high statistical significance and usefulness of the index is a reflection of something real. The city development index serves as a measure of the amortization of total costs expended over a long period of time for the needs of public and technical city services and infrastructure. This index is an indicator of the development of human potential and the basic material assets of the city. For example, the trend towards statistical input with a heavy weight of costly water treatment services. It is possible that the level of monetary costs can be directly related to the percentage increase in the city development index.

4. Results and discussion

The result of the study of the eco-city model is the consideration of "simple" and "real" scenarios for the development of the urban environment.

Thus, the result of the "simple city" scenario is the availability of residential buildings and enterprises built on equivalent plots. The result of the "real city" scenario is the introduction into the scenes of several real aspects, such as the construction of parks and the existence of preferred areas.

In a "simple" city, residential buildings or industrial enterprises can be erected on sites. These buildings have the same local utility. Dependence on the distance of the coefficients of interacting utilities led to a "self-organized" urban structure with separate residential industrial areas. The organization of the regions is symmetrical.

In the scenario of the "real" city, the evolution of the city is carried out under slightly more realistic conditions, taking into account two additional facts.

The geographical situation inside the city is usually not as homogeneous as in the scenario of a "simple city". For example, a river can flow through the city, and here there may be a natural preference for some areas when erecting certain types of structures.

Such conditions violate the equivalence of sites. However, it can be relatively simply introduced into the model as exogenous factors: in places where the river flows or there is a mountain that interferes with the erection of buildings, the local capacity can be equated to zero. On the other hand, pre-reading of some prestigious areas in the construction of buildings can be accounted for through local conditions of utility. Green plantations usually disaggregate too compact buildings in the city and serve as recreational facilities for residents of the area. The co-building of the ecolog-

ical belt is intended for the city. We turn to the consideration of the city in a regional context taking into account the system approach.

The process of creating ecological belts and parks should be introduced into the model by adding the following algorithm to the existing model:

- the ecological belt is an essential element of the modern city, the size depends on the population and the level of development of production;
- the ecological belt is the connecting element of the sustainable state of the cities in the region, taking into account the system approach;
- parks are created in areas with a large number of housing, so the first step consists of checking which part of the housing exceeds the threshold value;
- the park can be created on the site in the neighborhood with the minimum number of buildings in the area;
- the total number of parks in the city is limited.

The initial condition of a real scenario: "There is no housing, there are no industrial objects, there are no parks, there is no eco-bag." These conditions coincide with the conditions of a simple script, and all parameters are taken from it.

The index of development of a city or region is a generalizing synthetic indicator consisting of several indicators. We calculate the development index of the region by the example of the Rostov region [26].

Table 2. Initial data for assessing the sustainability of the modern city (region) model in the regional economy

Main criteria of city sustainability	Indicators	2011	2012	2013	2014	2015
1. Criterion for individual development of the city	1. The level of literacy of the city's population	99,7	99,7	99,7	99,7	99,7
	2. Specific weight of the population at the age of 7 - 18 years, studying in educational organizations, in the total population of this age group	99,89	99,89	99,89	99,89	99,89
2. Criterion of social development of the city	1. Life Expectancy at Birth	70,3	71,02	72,02	72,4	72,42
	2. Infant mortality	7,6	7,6	9,1	9,5	7,9
	3. The coefficient of population's vitality	0,766	0,837	0,843	0,862	0,869
3. Criterion of economic development of the city	1. City product	13118,11	14446,98	15716,5	17259,1	20068,2
	2. The coefficient of income concentration	0,392	0,398	0,398	0,398	0,392
	3. Level of employment of the population	59,2	60,3	61,5	60,9	61,7

4. Criterion of the infrastructure of the city	1. The average level of living space	21,9	22,3	22,8	23,2	23,6
	2. Level of improvement of housing stock	62,7	63,2	64,0	64,4	65,4
5. Criterion of ecological development of the city	1. The fraction of purified water	85,1	84,6	85,1	84,6	85,6
	2. The proportion of neutralized waste	49,0	37,0	75,0	75,67	77,0
	3. Proportion of purified pollutants	85,1	84,6	85,1	86,4	85,6
	4. Proportion of artificial reforestation	99,0	96,0	98,0	98,0	98,0

On the basis of Table 2, we calculate the integral indicators, bringing its by standardization to dimensionless quantities. These results are presented in Table 3.

Table 3. Calculation of integrated indicators

Integral indicators (indices)	Intervals	2011	2012	2013	2014	2015
Education indicator I1 (0-1)	0-100 %	0,997	0,997	0,997	0,997	0,997
	0-100% of the number of students of the corresponding age	0,999	0,9989	0,9989	0,999	0,9989
Indicator of vitality I2 (0-1)	25-85 years old	0,755	0,767	0,784	0,79	0,79
	0-32 ppm per 1000 newborns	0,238	0,238	0,284	0,297	0,247
Indicator of material security I3 (0-1)	0-1000 ppm per 1000 population	0,766	0,837	0,843	0,862	0,869
	100-40000 \$	0,814	0,830	0,844	0,860	0,885
	0-1	0,392	0,398	0,398	0,398	0,392
Comfort indicator I4 (0-1)	0-100 % of the total number	0,592	0,603	0,615	0,609	0,617
	0-100 Sq. M.	0,219	0,223	0,228	0,232	0,236
Indicator of environmental safety I5 (0-1)	0-100 %	0,627	0,632	0,64	0,644	0,654
	0-100% of the reset	0,851	0,846	0,851	0,846	0,856
	0-100% of the produced	0,49	0,37	0,75	0,76	0,77
	0-100% of the emission	0,851	0,846	0,851	0,864	0,856
	0-100% of the recovery area	0,99	0,96	0,98	0,98	0,98

Based on Table 3, we can calculate the general synthetic development index of the Rostov Region (Table 4).

Table 4. Calculation of the general synthetic development index of the Rostov Region for 2011-2015

Integral indicators (indices)	2011	2012	2013	2014	2015
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Education indicator, $I_1(0-1)$	0,998	0,998	0,998	0,998	0,998
Indicator of vitality, $I_2(0-1)$	0,586	0,614	0,637	0,650	0,635
Indicator of material security, $I_3(0-1)$	0,599	0,610	0,619	0,622	0,631
Comfort indicator, $I_4(0-1)$	0,423	0,428	0,434	0,438	0,445
Indicator of environmental safety, $I_5(0-1)$	0,731	0,756	0,858	0,863	0,866
<i>Region development index</i>	0,67	0,68	0,71	0,71	0,72

Thus, it is clear that the development index of the Rostov region in 2011-2015 is less than one. Therefore, the Rostov region in the development index is in the range from 0.5 to 1.0. At the same time, the positive aspect is the fact that the regional development index shows a steady upward trend.

As a graphic interpretation, it is proposed to use the "star" of Bossel. However, the "star" rays are integral indices. The normalized values of the change in the complex indicators of the state of the subsystems are plotted on the rays (Fig. 1).

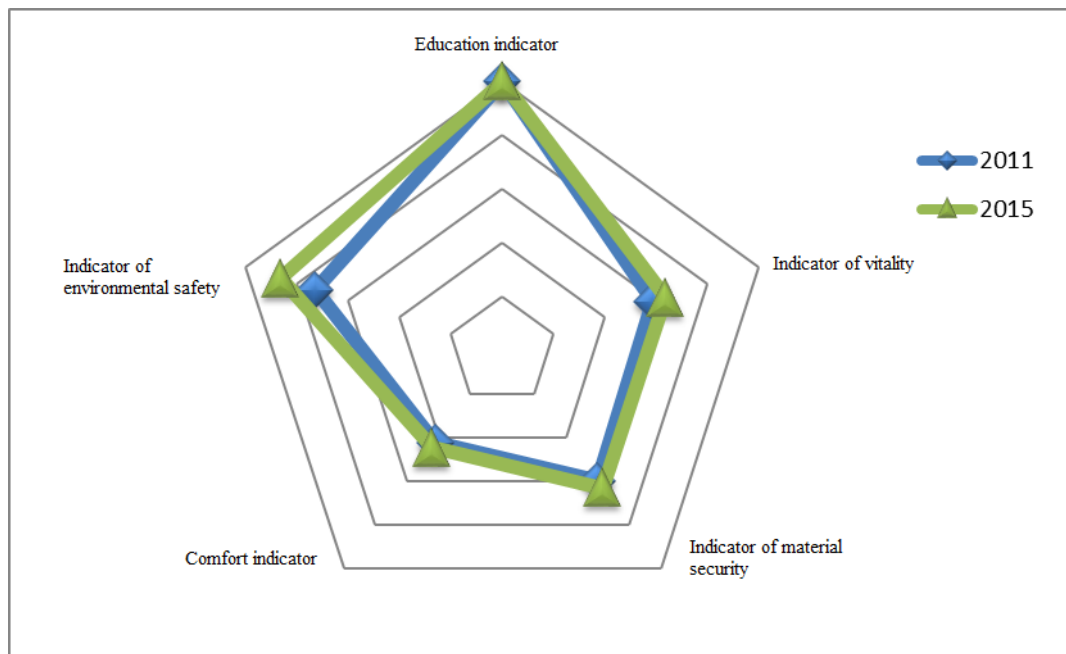


Fig. 1. Graph of the factor-based assessment of the stability of the model of the modern region by the example of the Rostov region, calculated by the method proposed by the authors

A clear change in the development index of the Rostov region in 2011-2015 is shown in Figure 2.

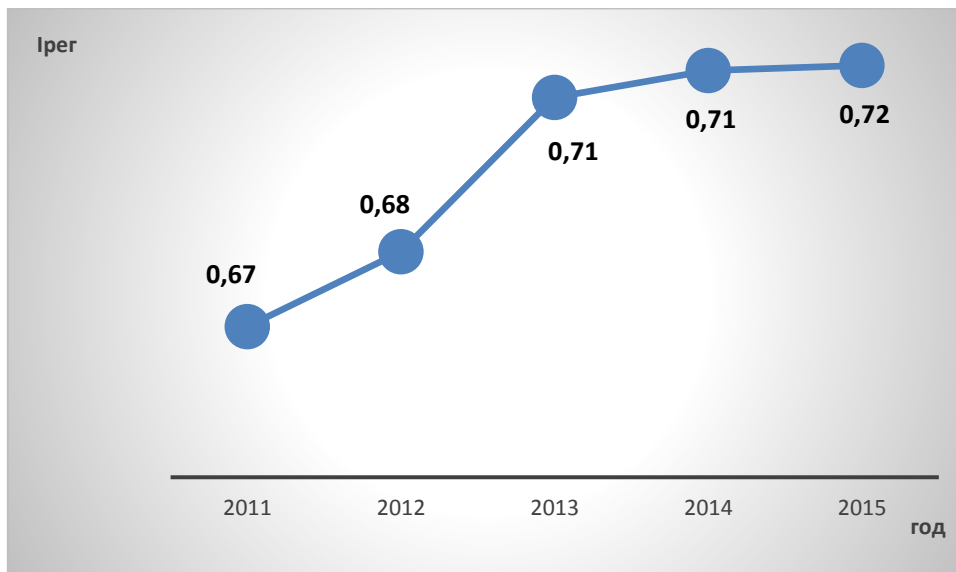


Fig. 2. Dynamics of the development index of the Rostov region in 2011-2015

It follows from the above that setting an interval, we can judge about stable or unstable development, as well as the development trends of each city, and the regional network of cities in general.

The use of the proposed analytical tools will improve the regulatory and statistical and reporting indicators of management of sustainable development of the region, improve the quality of management decisions taken by the authorities at the regional level, increase the competitiveness and balance of the regional economic system and rationally use the economic, social and environmental potential of the region.

5. Conclusion

The developed model of "Eco-city" presupposes the creation of conditions for the sustainable state of the city, based on three main aspects: economic, social and ecological. Ignoring one aspect leads to a deterioration of the economic state and socio-ecological comfort of the territory. Therefore, in the procedure for a comprehensive assessment of the degree of equilibrium of the urban environment, it is necessary to include the definition of three criteria: economic, environmental and social.

Economic policy should be aimed at increasing the level, quality of life of citizens and creating conditions for an effective urban environment. Criteria for socio-economic development of the territory are indicators of assessing the level and quality of life of the population, its correspondence to the parameters of a new scenario for the development of the modern city.

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Background of the Educational and Labor

Socialization of Modern Youth

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Abstract: In the early period of the labor market transformations in Russia the attitude of the population to higher professional education is changing, namely its socio-economic importance is lost because of the high discount rate of the population, that is, expectations of rapid income with less expense. The period of labor market reform is also characterized by a high share of structural unemployment, i.e. the mismatch of the professional competence level of employees to their positions and the market needs. As the labor market develops there is public interest in professional education and the desire to develop professional competence in accordance with the existing ideas about the demand for the specialties in purpose of obtaining future revenue as payment for the acquired competencies level and its implementation at the employment place. Due to time discrepancies of demand for training programs formation processes of the potential workers part and the demand for trained professionals from the potential employers part the problem of structural unemployment is put even more acute, there is an overproduction of specialists unclaimed at the labor market, unemployment is rising and especially the unemployment among young people with higher education. All this determines the need for a systematic study of the young people motivation in the process of their professional competencies forming, especially the professional orientation of young people in today's socio-economic conditions, expectations of young people from obtained professional competence in order to identify current trends of social and

economic behavior of youth in the process of professional development, to identify existing imbalances of their socio-economic assessment.

Keywords: education, labor market, human capital, youth, socialization.

Introduction

In accordance with the theory of "human capital" which was born in the 60s in the USA, with an increase in the individuals educational level the society as a whole gets much more benefit.

The concept of human potential development is based on the views of the eminent scientist Mahbub ul-Haq who initiated the preparation of global reports on human development within the United Nations Development Programme beginning with 1990. He designated the main idea: the meaning and purpose of social development are to expand the opportunities of each person to realize the potency and aspirations, to have a healthy, full, creative life. In this approach, a person is considered not only as a factor of social development, but as the main subject, using its results. The human development means the expanding the range and opportunities of intellectual, social, economical and political choice which is available to every member of society¹¹.

As the historical origins of the human development concept one can name the views of Adam Smith, who concerned the person as the part of social wealth and the purpose of social production.

Later, in connection with economic international cooperation issues there appeared a new direction - "human resources development" which suggests the human potential maximizing and its effective use for economical and social development. The concept of "human resource development" includes demographic, employment, health, nutrition, housing, urbanization, environment, education, training problems. Within this theory there was developed an idea that human capital investments are cost-effective. For example, in the USA the education share in GDP in the last third of the XX century was almost doubled.

According to its absolute size, it exceeds defense spending; 55% of young people aged 17 to 23 years (up to 60% in Japan) obtained the higher education,

¹ Veriaskina V. The Dynamics of Human Potential Development and Priorities of Higher Education // Higher education in Russia. 2005. No2. p. 29-37.

which is the most important factor in the future economic prosperity of these countries in the XXI century.

A special role in the formation of human capital belongs to the awardee of the Nobel Prize in Economics (1998) Amaranath Sena. He concerns the human development as the expansion of his abilities, not only an increase of material or economic wealth. Amaranath Sena believes that the purpose of social development is not the infinite increase of production, but the creation of opportunities for the people choice expansion of: the choice to do more things, to live longer time, to be saved from diseases that can be avoided, to have the access to knowledge. His position: *opportunity* and *choice* are closely related not only among themselves but also with the *freedom* - both negative (freedom from hunger), and positive (freedom to carry out one's life aspirations). Amaranath Sena states that ultimately the human development is the question of freedom. Basing on this concern the human development is not possible outside democratic social system with the priority of individual values.

The widespread introduction of mass higher education in the XX century became possible because the amount of "saved" socially necessary time which the society can receive from the specialist trained in the university is in average 6-10 times more than the cost of his training. Even to 1985 in the United States the average education level of working people was estimated at 13.1 years of education. It is believed that the education level of the common American working person is approaching mid-special education that includes a full school program and two years of college².

In developed countries with high-income almost 60% of the population in the age group from 18 to 23 years study in higher educational institutions of different types, and since 1980 this index increased by more than 1.5 times, and in Japan it reached almost 100 percent. At the same time, in middle-income countries only about 20% of this age group has the higher education and in countries with low income it's only 6%³.

In developed economies it's the human capital that become a major factor of progress, providing up to 3/4 of production and growth of national income, thereby

² Kapitsa S.P., Kurdyumov S.P., Malinetskii G.G. Synergetics and Forecasts of the Future. - Moscow, 1997.

³ The World and Russia / Ed. B.C. Avtonomov, T.P. Subbotina. - St. Petersburg, 1999.

stimulating extended reproduction of the middle class and the intelligentsia as social layer. A similar trend is observed now in Russia.

Such rapid changes in society have revealed a cultural transformation. At very high speed of revolutionary information shifts that shook Russia in the XX century the natural course of its peoples development subjected to painful changes.

In particular since 1917 traditional content of religious-ethical stage was ousted from the public consciousness and was replaced by Protestant ideals of the French Revolution which were alien for Russia of that time. Gradually there occurred also the partial substitution of fantastically mythological stage content and sacred meaning of fairy tales and myths was considerably emasculated, many of them have been transformed into "pioneer history" and other images of the new Soviet and Western mythology. Over the time the tales were filled with very exotic content (African and South American tales, as well as the Teletubbies, Pokemons, etc.). Analysis of the cultural and historical environment impact on the developing mind of the young generation in modern Russia from the ethno functional approach position shows that the fairy-tale and mythological stage of human mental development when emotional and sensual side of his relations is formed was seriously damaged.

One of the most common and widely occurring psychopathological humans symptoms in the modern culture crisis conditions are the signs of *alexithymia* (in particular the hindered ability to express feelings adequately). Ethno functional mental development violations and related ethnic marginality of modern young man mind appears primarily in the speech area. By remark of outstanding Russian historian and philosopher K.D. Kavelin the soul of the nation can be expressed only in the language of this nation, in particular, in Russian language which is adequate to the Russian culture⁴.

Role of education in the human capital forming for the developing countries

Strengthening of the "classic" educational element is especially actual (compared to pre-revolutionary Russia) precisely because the integrity of Russian culture and its media - Russian language - is now the most broken. Inextricable link

⁴ Sukharev A.V. Some Aspects of the Ethnofunctional Approach to the Problem of Education in Russia // Psychological magazine. 2005. №2 (Volume 26). p. 91-101.

of Russian, Old Slavonic and Greek languages was underlined by academician A.A. Shahmatov. The paradox lies in the fact that it was the destruction of Russian language which separates us from the very sources of European culture.

Meanwhile Russia is rapidly moving en route of globalization of almost all spheres of population life to the education system unification with the western samples, accepting and supporting the Bologna process.

Globalization in education has mixed effects. Its positive side is that it leads to the universalization and dissemination of advanced technical and scientific knowledge. Therefore, globalization is good in the teaching of natural sciences and engineering. However, in teaching the humanitarian sciences globalization brings to mind the cultural imperialism – the street with one-way traffic by which the views and values favorable to the dominant culture are broadcasted. Therefore teaching the humanitarian sciences and didactic teaching methods should be developed taking into account the national particularity. Russia may be of interest to the Bologna process participating countries only preserving the national particularity of the native education and its inalienable achievements.

One can refer to the technical experience of the South-Eastern countries - Japan, China, South Korea, Taiwan and Singapore. Preserving their cultural identity, they took all the best from the West - its technology, experience, investment - and not just staying on one level, but in many ways being ahead of Western countries.

Considering the specificity of the society formation in terms of uneven economic development globalization of systems of education and society implementation to educational processes identified the differentiated approaches to education obtaining and importance for different categories of citizens. There appear the new "features" of education which determine the social groups attitudes to them.

The term "*elite education*" is controversially used in literature⁵. They call as elite the education of *high quality* (in English literature - high quality education). It refers also to the education aimed at *training the elite* - political, economic and cultural. Prof. G.K. Ashin is wondering: "Who is prepared to take the elite position? Sons of the rich and noble families, preparing parents replacement by children to reproduce the elite in such a "natural" way? Or it's necessary to look for talented children, talented young people in all social strata of society? The first approach is

⁵ Ashin G.K. The Problems of the Elite Education in Foreign Sociology // SOCIS. 2005. No2. p. 87-95.

marked as "elitist education" which means a closed system of education, it condemns the elite education and the elite itself to degradation. It is only the second approach which responds the task of high-quality elite creating, really selected, the best in intellectual and ethical terms. Only an open system of elite education complies with the principles of democratic society.

In the last decades of XX - beginning of XXI centuries there were observed the global trends of movement towards the democratization of education, which includes the movement from the elitist education, which puts people in unequal conditions of competition for access to high quality education, i.e. it means people discrimination by social, national and other criteria, to the elite education when a high quality education is supplemented by its greater openness.

Differentiation of the professional education in Russia

The question of the differentiation of education, about the justice or injustice of elite educational institutions existence for a long time is discussed in the foreign literature. It revealed two alternative approaches. Egalitarian critics of elite education use the following arguments: the presence of elite schools is a challenge to democracy, a vestige of the aristocratic era, a social atavism; elite schools are harmful, because they put young people in unequal conditions, reproduce, maintain, reinforce the social and class inequality. Some scientists share the thesis about the harmful morale impact of the fact itself that there exist the elite educational institutions. The fact that students of elite private schools have incomparably greater chances to get the high quality education and to succeed in life, perniciously affect the morals of the young generation. In the democratic society alongside the state education system the independent education system including alternative education must also exist and let parents and children choose the system that it is more suitable for them.

And what about Russia? Although it is proud of its traditions of fundamental education, it is impossible to ignore that their foundations were laid in the late XIX - mid XX century. In the last decade of the XX century and during the first years of the XXI century science and education in Russia degrade rapidly bringing the country to a "Third World". It's impossible to enter the information society sitting on oil and gas pipes.

Realizing the importance of education for the formation and development of the country, as well as the need to develop integrated processes of education, science and industry the President proposed a national project in the sphere of education, aimed at:

- state support of universities and schools actively introducing innovative educational programs;
- implementation of the best teachers support program;
- informatization of education, increasing the availability of best educational practices, promotion of advanced learning technologies;
- the creation of new university centers of interregional development on the basis of existing universities in the Southern and Siberian districts, as well as two business schools in the Moscow region and in St. Petersburg;
- support for talented young people, promotion of youth initiatives through the competitions of youth projects, presidential stipends, maintaining a database of Russian talents;
- the development of professional training system in the army;
- support of one of the main activities of the educational institution – schoolchildren upbringing education.

"Today both knowledge and new people are in demand; they are extremely necessary for the development and future of Russia. There are a lot of problems, but the fact that knowledge is materialized and it becomes a factor of production development is quite obvious. Despite all the arguments at last we came to the conclusion that the state must directly support the development of high technology, the development of education - direct government support. We will continue to do it and we will do it persistently"⁶.

In modern education content of human nature knowledge does not correspond to reality because for many years the natural sciences data are presented tendentiously, for example, a person is presented as a biosocial being. In this case it turns out that there is no difference, for example, between a teacher and a bandit, a terrorist. For this reason the older generation's efforts aimed to formation of their change as a highly moral, do not reach the goal.

⁶ Questions to the First Person. Russian President Vladimir Putin Interview // The Economy and Education Today. 2005.

There are substantial grounds to believe that the human essence is spiritual and moral and its "biosocial" signs are secondary, uniting human with the animal world only at the level of the living being structures and metabolism⁷.

Such a science as psychology could play a significant role for the correction of this situation, in particular such its section as personal psychology which is based on the following principles:

- a person having freedom of choice chooses the object of cognition from his environment on his own (in the family, on the street, in the educational environment, in the creative and production team, in nature, etc.), he himself carries volitional actions to get knowledge, learn skills and abilities from anyone if all this has a personal meaning for him; personal meaning derives from the value orientations of the individual;

- most of all a person remembers and appreciates just what he does and what he finds himself. It's impossible both to teach and to raise a person against his will, without the inclusion of his will to effort on himself. The person is trained by himself and educated by himself only to that extent that he both knows and wants to do. By observing and evaluating examples of other people behavior in different situations, analyzing the expression of people's value orientations in their deeds and actions, everyone prepares for life only by himself by self-study and self-upbringing;

- *the will is the key psychological quality of person which is able to determine its spiritual and moral image as well as the degree of social adaptation. Will diagnostics, the creation of all conditions for the implementation of the person voluntary actions in practice, especially in the spiritual and moral sphere, promoting the formation of volitional capacity and skills to manage it are the primary tasks of education at all levels and forms;*

- *human life consists of the opportunities that come and go away. In the social environment a person must learn to see and to look for these opportunities, must be able and willing to use them, first of all, to his own spiritual and moral formation or regeneration.*

⁷ Andruschakevich AA Personal Psychology in the Education of the XXI Century // According to the materials of the conference "Strategy of Education Development in the XXI Century." Military - Medical Institute at the Russian Federal Border Service of the Nizhny Novgorod State Medical Academy. 2005

Taking into account the above principles, it is easy to determine the main purpose of education – to support the inquisitiveness and hard working ability formation of the young generation. As for the specific knowledge and skills offered "for the whole life", their adoption has always depended, of course, will continue to depend only on the learner. Nobody can influence on the formation of each human personality meaning and value orientations; it is the subject of personal choice; this area is the subject of psychological protection against any attempts to invade it from the outside.

Today it is important not only to foresee the future shape of society, perspective shape of education, depending on the knowledge and skills demanded in the XXI century, but also *what qualities must people have staying biosphere and intelligent people*, what is the safe and perspective way of life which people want to approve for themselves. Among these human qualities and properties of the human world the following become to be of particular value: the harmonious development of social and natural in a person, humane attitude to people and biosphere nature, high ekosofical (and environmental), and moral information culture, biospheric- noospheric consciousness, systematic scientific thinking, tolerance, creative attitude to life, a focus on sustainable development and preservation of the future civilization, biosphere and biotic matter cycles preservation, survival of biospheric person.

Now in the country the intensive process of education system transformation is particularly active: there is being developed the non-state system of higher education, paid education and a range of educational services provided by state universities are expanding, new specialties appear, there is introduced the multi-level system of higher education, etc. The main stimulant of these processes is the formation of blighty middle class. From the point of view of rapidly formed new social groups, including business and entrepreneurs, the expenses of improving the educational level represent an extremely profitable type of investment, enhancing their social status and income level⁸. Availability of quality education system allows the middle class not only to reproduce but also to constantly increase their socio-cultural capital, which is the most important stipulation of innovation process⁹.

⁸ Arutyunov V.S., Strekova L.N. Sociological Background of Sscientific Activity. - M., 2003.

⁹ V. Arutyunov, L. Strekova, S. Tsyganov Innovation and Corporate Education System: the Contribution of the University. // Higher Education in Russia. 2005. No1. Pp. 29 - 39.

Socialization as the base for professional forming

In empirical studies carried out on the socialization of young people we based on the following basic theoretical assumptions.

Personality is a set of internal conditions through which all external influences are refracted (S. Rubinstein). Personality is the social individual, object and subject of social relations and historical process, manifesting herself in communication, activities, behavior (V.A. Hansen). The concept of personality refers to the human individual as a member of society, summarizes socially important features which are integrated in him (I. S. Kon). Personality is the subject of social behavior and communication (B.G. Ananiev). Personality is a person as a carrier of consciousness (K.K. Platonov).

The processes and the results of becoming, formation and development of the individual are determined by the concept of *socialization*. Socialization is the process and the result of the dialectical interaction between the individual and society, "introduction" of the individual in the social structures by socially desirable qualities. The main forms of socialization are the internalization and social adaptation. Internalization should be understood as a process of borrowing of certain information from the environment and its assimilation as the knowledge, skills, norms, patterns of behavior and values. The ability to accommodate the individual values and norms of behavior to social conditions can be interpreted as social adaptation.

According to the most common definition, the social and psychological socialization (from the Latin *socialis* - public) is the process of the individual entering into society, the active assimilation of the social experience, social roles, norms, and values needed to succeed in life in this society. In the process of socialization in humans there are formed the social qualities, knowledge, skills, appropriate habits, which give the opportunity to become a capable party of social relations. Socialization takes place both in terms of a natural influence of the different circumstances of life on the person and in terms of purposeful person formation. From the social psychology point of view the individual activity is stipulatory by the human need to belong to a society, to perceive, to assess, and to interpret it, to identify himself with his nation and a particular social group. At the stage of relations and communications transition stereotypical requirements of the group to the behavior of an individual motivate him to follow the appropriate lines of conduct.

Youth media is a social space of the transition from stable relations with a small social group to the expanded social relationships. This period is connected with the need to adapt the learned behavior patterns to more complex social networks system, which is a difficult social process of personality development with possible formation of young people behavioral destruction elements.

In the world in general and in Russia in particular youth development theories occur abruptly. The main directions of the theoretical understanding of youth were developed in the 1920s - early 1930s. The first direction characterizes *young people as the bearer of the psychophysical properties of youth*. The researchers consider not young people but youth (juvenility) as the period of the individual life (G. Stanley Hall, Charles Buehler, W. Stern, A. Freud, Wilhelm Reich et al.). The second direction concerns *the young people as a cultural group* through a set of inherent cultural properties and functions (E. Spranger, R. Benedict, B. Malinowski, M. Mead et al.). The third direction is studying *young people as object and subject of the succession and generational change process*, here the social function of youth comes to the fore (sociologists of Marxist school, K. Mannheim). The sociology of youth got the impetuous development in the 1960s - early 1970s when scientific thought was mainly focused on the conclusions of the second (Sh. Eisenstadt, F. Tenbruck, T. Rozzak et al.) and third (G. Shelski, L. Rozenmayr. et al.) directions. The circumstances of the boom in the theoretical understanding of young people in these two periods are defined including the fact that it was that time when young people manifested themselves the most brightly through self-reference in the forms of the youth movement. Theoretical background for the determination of young people as an object of special study existed even in the XIX century; however, they were not implemented in the youth theories. The theoretical opportunities for the development of ideas on youth are available in contemporary sociology substantially changed with the spread of phenomenological sociology and approval of postmodern trends but these opportunities are mostly prospective. The transitional period of formation and development of political and economic relations in Russia had an impact on the process of continuity and transmission of socio-cultural experience to the younger generation.

In the reform period during the 90-ies the significance of the integral values which were reference points in Soviet times was sharply reduced among young people. At the same time the basic values were transmitted from generation to

generation in sufficiently stable configurations. The loss of an idea which could unify the society leads to its active search mostly by the younger generation because of the desire to be involved in social groups. In studies of value orientations of young people those indirect circumstances that are found in the projective questions are important. Significant results are provided by answers to the question about the expectations from the future. Empirical studies show that the majority of respondents hope for the profession they have chosen, but they believe that basically they will be guided by a pragmatic approach when choosing work.

Ultimately the indirect evidence of the value orientations of young people show the real preferences of young people more accurately than the direct questions about values. In particular it is linked with the properties of the studied social group which young people constitute. If we talk about the "reevaluation of values", it is rather the position of mature people with definite life experience, who were exposed to socialization influences for a long time. The *formation* of value-regulatory system is characteristically for young people, which means the action of other mechanisms than in the situation of reevaluation of values. In this case comparing value scales of different age groups (including young people) which are used in Russian sociology provide information about a variety of values shared in the Russian society, but does not adequately trace the world of values and strategical preferences of young people as such.

American psychologists G. Gould, D. Levinson, D. Veylant discovered such special periods of a young individual's life:

16-22 years (the time when a person tries to show himself and others that he is capable of independent life; a characteristic feature of the behavior during this age is the demonstration of his own independence);

23-28 years (this period is characterized by the self-assertion of the individual; there is formed a persistent idea of the place that the person occupies or would like to take in life; for the period in a sharp change in the course of life is inherent).

The social environment does not affect the individual only directly through the examples, behavior, thoughts of individuals, groups, but also indirectly: through books, media communications, laws, rules, norms, moral values which are established in the society.

At the same time the social environment is also the subjects of work, culture, science.

In the socio-psychological literature the question about phases and stages of socialization is resolved ambiguously.

After the feature "the attitude to work", G. Andreeva identifies three stages of socialization: pre-labor, labor and post-labor (sociological approach). Pre-labor stage covers childhood, teenage years and early adulthood and has two independent stages: early socialization (imitation and copying the behavior of adults by children; game activity where children perceive the behavior as fulfilling the role, group games, where children learn to understand what is the society waiting from them) and training. Labor stage is associated with the maturity of the individual, the realization and deepening of his social experience. Specificity of the post-labor stage of socialization is to realize the potential of people of already retirement age.

Contrary to the sociological approach there acts the psychoanalytic approach in terms of which the period of early childhood has the particular importance for the socialization of the individual. Psychoanalysis links the stage of socialization with the manifestation of biological trains, instincts and subconscious motivations of human. Another approach to the question of stages of socialization - a compromise - takes into account both sociological and psychoanalytic views. According to this approach there are distinguished two stages of socialization: primary (it covers two stages: from birth to the start of the studying at school, from the beginning of schooling to the top of the social maturity and choice of profession) and secondary (assimilation of social roles by the adult in the process of working, cognition and communication).

Socialization is a long and complicated process, active becoming of which can be attributed to the young age of the individual - the participant of the youth media.

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