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# PUBLIC INVESTMENT IN HUMAN CAPITAL AND ECONOMIC GROWTH IN ALGERIA: AN EMPIRICAL STUDY USING ARDL APPROACH

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**Abstract.** This paper examines the link between public investment in human capital and economic growth in Algeria over the period 1990 - 2017. To do so, public expenditures on education and health have been used to investigate their impact on economic growth. The study employs the autoregressive distributed lag (ARDL) approach. The main finding of this paper is that there is no cointegrating relationship between these two variables in the long run. This evidence suggests rethinking the way the public funds are devoted to the education and health sectors. This becomes today a chief priority for policy makers in order to strengthen the impact of public investment in human capital on economic growth in the future.

**Keywords:** Education, Health, Economic growth, ARDL, Human Capital in Algeria.

Rezumat. Lucrarea examinează legătura dintre investițiile publice în capitalul uman și creșterea economică în Algeria în perioada 1990 - 2017. Pentru a face acest lucru, cheltuielile publice pentru educație și sănătate au fost folosite pentru a investiga impactul acestora asupra creșterii economice. Studiul folosește abordarea lagului distribuit autoregresiv (ARDL). Principala constatare a acestei lucrări este că nu există o relație de cointegrare între aceste două variabile pe termen lung. Aceste dovezi sugerează regândirea modului în care fondurile publice sunt alocate sectoarelor educație și sănătate. Aceasta devine astăzi o prioritate principală pentru factorii de decizie politică pentru a consolida impactul investițiilor publice în capitalul uman asupra creșterii economice în viitor.

Cuvinte cheie: Educație, Sănătate, Creștere economică, ARDL, Capital uman în Algeria.

#### Introduction

In early 1960s, the theory of human capital emerged as a new revolution in economic thought thanks to the seminal contributions of some famous American economists like Schultz [1, 2], Becker [3], and Mushkin [4]. The starting point of this theory is that spending on education and health is a form of investment in human capital. In light of this, pubic as well as private expenditures on education and health yield various economic and non-

economic benefits. At the aggregate level, the evidence suggests that education and health status is closely related to national income. Theoretical literature provides a number of arguments that explain the causal relationship between human capital and economic growth. Lucas [5] states that public investment in education and health contributes to improving the quality of the workforce and therefore to increasing productivity. Romer [6] considers the accumulation of human capital as a prerequisite for the promotion of innovation, a vital engine of technological progress. In addition, Benhabib and Spiegel [7] indicate a certain level of human capital necessary to facilitate the diffusion and transfer of technology between countries.

On the other hand, economic growth constitutes the main source of public funding of education and health sectors. Hence, the link between human capital and economic growth is bidirectional. In accordance with this evidence, policy-makers worldwide advocate increased expenditures on both education and health, especially in developing countries where human development is far away from that in developed countries.

In Algeria, tremendous funds have been devoted to education and health sectors since independence. Public expenditures have been evolving over time to overcome social needs as a result of accelerated demographic growth, and to fulfill the economic requirements of the national economy. With respect to education, the overall public spending rose from 2.3 to 9.2 billion dollars between 2000 and 2018. Likewise, public health expenditures per capita increased from 278\$ (PPP) in 2000 to 975\$ in 2017. Meanwhile, GDP per capita increased from 1765\$ in 2000 to 4278\$ in 2018.

In light of this, the main objective of this research paper is to assess empirically the link between public investment on human capital and economic growth in Algeria over the period 1990-2017.

The paper is organised as follows: the second section presents an overview of the nexus between human capital and economic growth. The third section offers some empirical studies. The fourth section introduces data and methodology, while the fifth section presents and discusses the empirical findings. Finally, the conclusion is in the sixth section.

#### Theoretical Background

Human capital is accumulated by investing mainly in people's education and health. Economists as well as policy-makers believe that human capital accumulation impacts positively economic growth. As far as education is concerned, a large body of literature argues that investing in education boosts economic growth. According to Stevens and Weale [8], there are two reasons for expecting to find some link between education and growth. First, since 1800, living standards have raised so much because of education. Second, many econometric studies suggest that individuals' earnings depend on their level of education, evidence that is true for countries. In light of this fact, theoretical growth literature emphasizes at least three channels by which education may affect growth according to Hanushek and Wossman [9]: first, education can enhance competencies of the labour force, which raises labour productivity as in augmented neoclassical growth theories, cf. Mankiw and al. [10]. Second, education can boost the innovative capacity of the economy, and the new knowledge on new technologies strengthens growth. cf. Lucas [5] and Romer [11]. Third, education can facilitate the diffusion and transmission of knowledge which promotes growth, cf. Nelson and Phelps [12]. Despite these strong theoretical arguments, there are still mixed and conflicting empirical findings.

Thus, the causal effect of education on growth is neither mechanical nor inevitable. Many studies did not find a link between education and growth in many countries, and some of them; rather, found a negative relationship between them. In fact, there are a series of reasons behind these findings. The first one consists in focusing on education quantitative measures (such as years of schooling) rather than qualitative ones. Aghion and Howitt [13], for instance, find that a one-standard-deviation increase in science test results would enhance the growth rate by 1% per year. In contrast, a one-standard-deviation rise in school attainment would increase the growth rate by only 0.2% per year. In addition to the education measurement problem, there is a variety of econometric approaches used in the literature. Also, the data considered are different in their nature and size. Furthermore, countries are heterogeneous in their economic structure and institutions.

With regard to health, Churchill et al [14] showed that the effect of healthy growth has not received much attention in the literature compared to the effect of education growth. Although the data show clearly the positive association between health status and economic development stage, the causal effect of health on growth is subject to controversy in the literature. In his seminal paper entitled "health as an investment" published in 1962, Mushkin [4] argues that health affects positively growth in the United States. But it is until the 1990s where scholars began investigating deeply the nexus between health and growth at the cross-section level. Most of them found a positive effect of health measures on growth (see Barro [15], Barro [16], Bloom et al. [17], and Weil [18] for a review).

On contrary, other studies rejected such an effect, though some of them found a negative effect of health on growth in many countries as in Acemoglu and Johnson [19]. In terms of assessing the impact of health on growth, David E et al. [2] provided two main approaches. The first consists in microeconomic estimates of health effects to calibrate its size at the aggregate level, and the second is to estimate the aggregate link directly using macroeconomic data. For the studies that argued a positive effect of health on growth, there are various mechanisms that explain such an effect. By and large, literature highlights four mechanisms. First, health affects directly growth by increasing labour productivity. Second, health impacts indirectly growth by accumulating human capital since health can improve school attendance and cognitive skills. Third, health contributes to accumulating physical capital by rising saving (the incentives to save for retirement). Four, health leads to fertility reductions. Beyond these theoretical statements, there are many difficulties surrounding the assessment of the relationship between health and growth. David E et al. [2] stated three problems, which is the nexus between these two variables is unclear due to bidirectional causality between them, and the link between health and growth varies given the health measures considered (age, gender, and socioeconomic status). Finally, health interventions differ widely between developed and less-developed countries.

#### **Empirical Evidence**

As far as academic research is concerned, a myriad of empirical studies have examined the effect of public spending on education and health on economic growth. For instance, Eggoh et al. [20] explored the link between human capital components and economic growth for a sample of 49 African countries over the period (1996 - 2010). Using traditional cross-section and dynamic panel techniques, the authors find that government expenditures on education and health negatively influence economic growth; however, human capital stock indicators have a slight positive impact. They find also education and health expenditures are complementary.

Maitra and Mukhopadhyay [21] investigated the impact of public investment on education and health on the economic growth of 12 countries in Asia and the Pacific over the time period (1980-2010). They used cointegration and VECM techniques.

The findings were mixed; in six countries (Bangladesh, Kiribati, Malaysia, Maldives, Philippines, and South Korea) there are cointegrating relations while in the other six countries, there are no cointegrating relations (Fiji, Nepal, Singapore, Sri Lanka, Tonga and Vanuatu).

In a meta-analysis study, Churchill et al. [14] used a sample of 306 estimates drawn from 31 primary studies and conducted an empirical synthesis of the relationship between government spending on education or health and growth. They found government education expenditures affect growth negatively. However, when they used government expenditures on both education and health as a combined measure, they found a positive growth effect. The study revealed also the factors that explain the heterogeneity in the literature. They are mainly econometric specifications, publication characteristics, and data characteristics.

Regarding the empirical evidence on the impact of public spending on education and health on economic growth in Algeria, most studies focused separately on one of the human capital components (either education or health expenditures). The studies that combine both education and health include, in addition to public spending on education or health, other measures such as years of schooling or rates of enrolment for education, and life expectancy or infant amorality for health. Mokhtari [22] investigated the main sources of economic growth in Algeria over the period (1970 - 2002).

Using Granger causality, he revealed the absence of causality between public spending on education and economic growth in both directions. In contrast, Ahmed and Bengana [23] examined the relationship between government expenditures on education and growth during [23]. They used Granger causality and cointegration techniques, and found a long-run equilibrium between the two variables in addition to the existence of causality between them in both directions.

On the other hand, Messaili and Tlilane [24] assessed the contribution of health to economic growth in Algeria over the period (1974 - 2013). Among the proxy variables used for health, they included public spending on health.

By using the ARDL approach, they found this one affects positively and significantly economic growth. Likewise, Boussalem et al. [25] investigated the causality and cointegration relationships between government spending on health and economic growth during (1974 - 2014).

The study revealed a long-run equilibrium between these two variables; however, it showed that causality runs only from economic growth into government spending on health.

#### **Data and Methodology**

The methodology of this research paper is driven by the need to investigate the effect of public investment in human capital on economic growth in Algeria. This section displays the size of the data sample, definition of variables, in addition to the specifications of the study model. This paper is also based on annual time series data ranged from 1990 to 2017. The data are obtained from the World Bank database.

The model used in this paper is based on the study of Bokhari [26] as follows:

$$Y = f(H, K, E) \tag{1}$$

After introducing logarithm in both sides, the model becomes in the following form:

$$\ln Y = \alpha_0 + \alpha_1 \ln H + \alpha_2 \ln K + \alpha_3 \ln E + \mu_i, \tag{2}$$

Where:

Y: is real GDP per capita;

*H*: is real is expenditures on health;

*K*: is physical capital measured by the Gross Fixed Capital Formation;

*E* : is expenditures on education;

 $\mu_i$ : is random disturbance term;

 $\alpha_0$ ,  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ : are the respective parameters.

Thus, the model used for estimation is given as follows:

$$\ln GDP = \alpha_0 + \alpha_1 \ln H + \alpha_2 \ln K + \alpha_3 \ln E + \mu_i \tag{3}$$

All variables are measured in real terms, and they are all of them expressed in logarithm.

#### **Results and Discussion**

Table 1 shows the variables to be taken into account in this paper and their measurements.

The Results of Unit-Root Estimation

Table 1

| Vaviables         | Augmente                  | ed Dickey-Ful<br>statistic        | ller test                         | Philips Perron test statistic |                                   |                                  |
|-------------------|---------------------------|-----------------------------------|-----------------------------------|-------------------------------|-----------------------------------|----------------------------------|
| Variables         | Intercept & trend         | Intercept                         | None                              | Intercept & trend             | Intercept                         | None                             |
| lnGDP             | -3.434654<br>(0.0677) *** | -                                 | -                                 | -3.244546<br>(0.0972) ***     | -                                 | -                                |
| D(ln <i>GDP</i> ) | -3.535422<br>(0.0563)     | -3.721133<br>(0.0098)*.<br>**.*** | -                                 | -3.498629<br>(0.0605)         | -3.696229<br>(0.0104)*.<br>**.*** | -                                |
| ln <i>H</i>       | -3.423889<br>(0.0691) *** | <del>-</del><br>-                 | -                                 | -3.423889<br>(0.0691) ***     | -                                 | -                                |
| D (ln <i>H</i> )  | -9.013764<br>(0.0000)     | -<br>-                            | -8.032099<br>(0.0000)*.<br>**.*** | -9.013764<br>(0.0000)         | -<br>-                            | 7.481609<br>(0.0000)*.<br>**.*** |
| ln <i>K</i>       | -2.797564<br>(0.2104)     | -                                 | -                                 | -5.796629<br>(0.0003)*.**.    | -                                 | -                                |
| D(lnK)            | -5.952730<br>(0.0003)     | -                                 | -2.792516<br>(0.0072)*.<br>**.*** | -                             | -                                 | -                                |
| ln <i>E</i>       | -2.274073<br>(0.4329)     | -                                 | 0.950339 (0.9044)                 | -2.333838<br>(0.4031)         | -                                 | -                                |

|                 |                       |   |                                   |                       | Continue | ation Table 1          |
|-----------------|-----------------------|---|-----------------------------------|-----------------------|----------|------------------------|
| D(ln <i>E</i> ) | -5.199853<br>(0.0015) | - | -5.058759<br>(0.0000)*.<br>**.*** | -5.199853<br>(0.0015) | -        | 5.029942<br>(0.0000)*. |

Note: \*, \*\*, \*\*\* represent significance at 1%, 5% and 10% respectively. Source: Authors' Computation.

By employing ADF and PP unit root tests, all variables are non-stationary at level I(0), but they are stationary after taking the first difference I(1) except the  $(\ln K)$  variable which is stationary at level when using PP unit root test. Moreover, some variables have a difference stationary (DS) specification while others have a trend-stationary specification.

Based on the stationary results obtained, the autoregressive distributed lag (ARDL) approach can be used to estimate the link between human capital and economic growth in Algeria. This approach popularized by Pesaran and Shin [27], Pesaran, et al [28] is used to investigate the relation between the variables under study.

Table 2 displays the estimation of the model (3) by using ARDL approach. In this model, the dependent variable is real GDP per capita while the dynamic regressors are: the real GDP per capita with one lag, expenditures on health, physical capital measured by the Gross Fixed Capital Formation without lag, and expenditures on education with four lags.

Table 2
ARDL Model Estimation Results

| Variables          | Coefficient | Std. Error                  | t-Statistic                     | Prob     |  |
|--------------------|-------------|-----------------------------|---------------------------------|----------|--|
| ln <i>GDP</i> (-1) | 0.743852    | 0.222433                    | 3.344162                        | 0.0048   |  |
| ln <i>H</i>        | 0.043224    | 0.030504                    | 1.417025                        | 0.1783   |  |
| ln <i>K</i>        | 0.131286    | 0.238343                    | 0.550829                        | 0.5904   |  |
| ln <i>E</i>        | -0.007490   | 0.035798                    | -0.209234                       | 0.8373   |  |
| ln <i>E</i> (-1)   | -0.051474   | 0.035179                    | -1.463192                       | 0.1655   |  |
| ln <i>E</i> (-2)   | 0.000977    | 0.039714                    | 0.024603                        | 0.9807   |  |
| ln <i>E</i> (-3)   | -0.009479   | 0.032178                    | -0.294594                       | 0.7726   |  |
| ln <i>E</i> (-4)   | -0.063843   | 0.024616                    | -2.593562                       | 0.0212   |  |
| С                  | 5.290718    | 4.992031                    | 1.059833                        | 0.3072   |  |
| @TREND             | 0.005274    | 0.009680                    | 0.544850 0.5944                 |          |  |
| R-squared          | 0.998559    |                             | Mean dependent vai              | 25.64137 |  |
| Adjusted R-squared | 0.997632    |                             | S.D. dependent var              | 0.253843 |  |
| S.E. of regression | 0.012352    |                             | Akaike info criterion -5.655592 |          |  |
| Sum squared resid  | 0.002136    |                             | Schwarz criterion -5.164736     |          |  |
| Log likelihood     | 77.86710    |                             | Hannan-Quinn criter -5.525367   |          |  |
| F-statistic        | 1077.664    | Durbin-Watson stat 2.087458 |                                 |          |  |
| Prob(F-statistic)  | 0.000000    |                             |                                 |          |  |

Source: Authors' Computation.

The results in Table 2 came after having determined the appropriate lag structure that allowed this estimated model to be free of econometric problems, which were determined according to Akaike Criterion Information: ARDL (1.0.0.4) as Figure 1 shows:

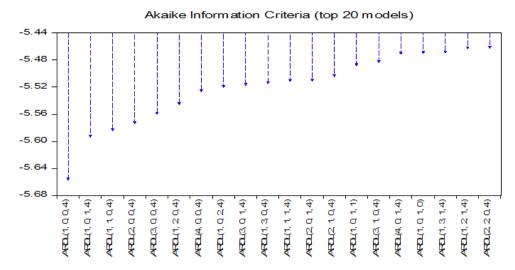


Figure 1. Lag Length Selection.

Source: Authors' Computation.

Figure 2 shows that there is no autocorrelation of residuals in the model. Besides, Figure 3 denotes that the residuals are normally distributed since the probability is higher than 5%.

| Autocorrelation | Partial Correlation | AC        | PAC    | Q-Stat | Prob* |
|-----------------|---------------------|-----------|--------|--------|-------|
| · 🖪 ·           |                     | 1 -0.243  | -0.243 | 1.6075 | 0.205 |
| · 🛅 ·           |                     | 2 0.165   | 0.113  | 2.3828 | 0.304 |
| · 🗐 ·           |                     | 3 -0.168  | -0.112 | 3.2175 | 0.359 |
| , <b>j</b> g ,  | <b> </b>            | 4 0.105   | 0.032  | 3.5644 | 0.468 |
| , 📕 ,           | j . <b>d</b> .      | 5 -0.170  | -0.119 | 4.5156 | 0.478 |
| 1 ( 1           |                     | 6 -0.015  | -0.114 | 4.5239 | 0.606 |
| , <b>d</b>      | j . 📑 .             | 7 -0.127  | -0.121 | 5.1120 | 0.646 |
| ı <b>(</b>      | i . 📑 .             | 8 -0.046  | -0.137 | 5.1955 | 0.736 |
| , <b>=</b>      | j , <b>⊟</b> j ,    | 9 -0.191  | -0.248 | 6.7171 | 0.667 |
| , <b>j</b>      | j , <b>j</b> ,      | 10 0.255  | 0.153  | 9.6227 | 0.474 |
| ı 📕 ı           | i , <b>⊟</b> ,      | 11 -0.236 | -0.196 | 12.285 | 0.343 |
| ı <b>j</b>      | j ( <b>j</b> a )    | 12 0.259  | 0.080  | 15.786 | 0.201 |

Figure 2. Correlogram of Residuals.

Source: Authors' Computation.

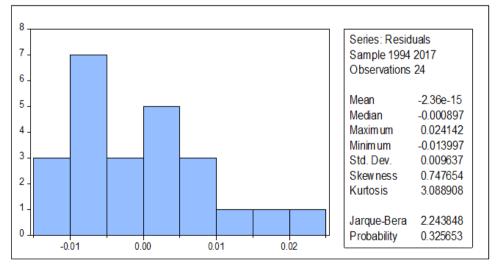


Figure 3. Normality Test for Residuals.

Source: Authors' Computation.

On the other hand, we use also another test that detects the risk of second-degree autocorrelation. This test is Breusch–Godfrey serial correlation *LM*. The results in a Table 3 show that the probability associated with Fisher's statistic (F-statistic) equals 0.8817 and the probability of Chi-Square equals 0.7795. Both of them are more than 5%, therefore, one can conclude that there is no autocorrelation of residuals.

Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic 0.127188 Prob. F(2,12) 0.8817

Obs\*R-squared 0.498190 Prob. Chi-Square (2) 0.7795

Source: Authors' Computation.

In addition, there is no problem with error variances, which means that they are constant over time. Based on Table 4, and according to the ARCH heteroskedasticity test, the probability value of Fisher's statistic (Prob. F(1.21)) equals 0.2525. In addition, the probability value of Chi-square observations (Prob. Chi-Square (1)) equals 0.2330. These two results are higher than the critical probability value of 5%. Thus, the model is not suffering from heteroskedasticity problem.

**ARCH Heteroskedasticity Test** 

Table 4

Table 3

| Heteroskedasticity Test: ARCH             |          |                      |        |  |  |  |  |
|---|----------|----------------------|--------|--|--|--|--|
| F-statistic 1.384531 Prob. F(1.21) 0.2525 |          |                      |        |  |  |  |  |
| Obs*R-squared                             | 1.422599 | Prob. Chi-Square (1) | 0.2330 |  |  |  |  |

Source: Authors' Computation.

Based on Table 2, the long run form and bounds test has been used to find out the equilibrium relationship. Their results are shown in Table 5. In fact, the relationship is completely unknown at 10% because it falls within the area of suspicion (between lower and upper bounds). Its statistical value F-statistic 4.121209 obtained from the results of bounds test of the public investment in human capital and economic growth in Algeria falls between the upper I(1) and lower I(0) critical value bound.

Results of Bounds Test Approach to Cointegration

Table 5

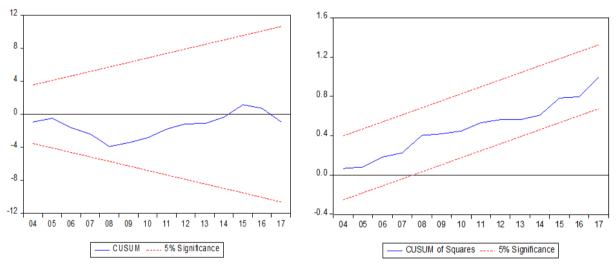
| F-Bounds Test      | No levels relationship |         |                     |                        |
|--------------------|------------------------|---------|---------------------|------------------------|
| Test Statistic     | Value                  | Signif. | I(0)                | l(1)                   |
|                    |                        |         | Finite Sample: n=35 |                        |
| F-statistic        | 4.121209               | 10%     | 3.8                 | 4.888                  |
| Actual Sample Size | 3                      | 5%      | 4.568               | 5.795                  |
|                    |                        | 1%      | 6.38                | 7.73                   |
| t-Bounds Test      |                        |         | Null Hypothesis: I  | No levels relationship |
| Test Statistic     | Value                  | Signif. | I(0)                | l(1)                   |
| t-statistic        | -1.151575              | 10%     | -3.13               | -3.84                  |
|                    |                        | 5%      | -3.41               | -4.16                  |
|                    |                        | 1%      | -3.96               | -4.73                  |

Source: Authors' Computation.

Consequently, the null hypothesis cannot be rejected, so there is no cointegrating relationship between public investment in human capital and economic growth in Algeria in the long run.

As for the rest of the significance levels 1% and 5%, respectively, there is no equilibrium relationship between these variables, because the F-statistic value 4.121209 is evidently below the I(0) critical value bound. Consequently, the alternative hypothesis is rejected and the null hypothesis is accepted, which indicates no equilibrating relationship between the variables of this study. Also, these results are also confirmed by using t-statistic.

Among the sensitive technical econometric issues is that the estimated parameters for this model by the autoregressive distributed lag (ARDL) approach must be constant during the study period. In such a case, there is no structural imbalance over time, and there is only one estimated equation for this study. Based on the Figure 4, the cumulative sum (CUSUM) and cumulative sum squares (CUSUMSQ) of the recursive residuals tests show that the parameters of the estimated model appear constant. The results confirm the stability of coefficients since the (CUSUM) and (CUSUMSQ) statistics do not exceed 5% critical bounds of parameter stability.



**Figure 4.** Plot of CUSUM and CUSUMSQ of Recursive Residuals. *Source: Authors' Computation.* 

The lack of any co-integrating relationship between public investment in human capital and economic growth in Algeria and its absence entirely at levels of significance by the autoregressive distributed lag (ARDL) approach reflects the failure of adopted policy, the small funds allocated to education and health sectors as a percentage from gross national income. In addition, incentives for innovation and creativity are not enough to spur growth. Consequently, the educational outcomes are not compatible with the requirements of the Algerian economy and the focus on quantity rather than the quality of graduates from education establishments will never change the current situation. All these facts lead to the absence of any impact of public investments in human capital on economic growth.

#### **Conclusions**

This paper aimed to investigate the relationship between public investment in human capital (education and health) and economic growth in Algeria. During the last decades, Algerian authorities devoted increasing funds to finance education and health sectors in order

to meet social needs. In fact, it has been a big challenge for policy makers to keep up with the accelerated demographic growth.

Theoretically speaking, scholars argue that, for developing countries, investing in human capital is a sine qua none condition to spur growth and cutch up developed countries. However, a large body of empirical literature conclude contradictory findings. In Algeria, for instance, many studies found a positive association between public investment in human capital and growth while other studies did not find any association.

In this paper, and by using an ARDL approach, we concluded that public investment in human capital and growth are not cointegrated in the long run in Algeria. This evidence suggests that public policy in this regard failed to achieve the objective. Therefore, it is highly recommended to policy makers to rethink the current policies in terms public funding and try to fund efficiently strategic sectors such as education and health.

#### References

- 1. Schultz T.W. Capital formation by education. Journal of political economy, 1960. 68(6): p. 571-583.
- 2. David E. B., et al. *Health and Economic Growth: Reconciling the Micro and Macro Evidence*, in *VfS Annual Conference 2018: Digital Economy* G.E. Association, Editor 2018, Institute of Labor Economics (IZA): Hamburg.
- 3. Becker G. *Investment in Human Capital: A Theoretical Analysis*. Journal of Political Economy, 1962. 70(5): p. 9-49.
- 4. Mushkin S.J. Health as an Investment. Journal of political economy, 1962. 70(5, Part 2): p. 129-157.
- 5. Lucas Jr, R.E., *On the mechanics of economic development.* Journal of Monetary economics, 1988. 22(1): p. 3-42.
- 6. Romer P.M. *Increasing returns and long-run growth*. Journal of political economy, 1986. 94(5): p. 1002-1037.
- 7. Benhabib J. and Spiegel M.M. *The role of human capital in economic development evidence from aggregate cross-country data*. Journal of Monetary economics, 1994. 34(2): p. 143-173.
- 8. Stevens P. and. Weale M. *Education and economic growth*, in *International handbook on the economics of education*, G. Johnes and J. Johnes, Editors. 2004, Edward Elgar Publishing Ltd: UK. p. 205-311.
- 9. Hanushek E.A. and L. Woessmann. *Education and economic growth*. International Encyclopedia of Education, 2010(2): p. 245-252.
- 10. Mankiw N.G., Romer D., and Weil D.N. *A contribution to the empirics of economic growth*. The quarterly journal of economics, 1992. 107(2): p. 407-437.
- 11. Romer P.M. *Endogenous technological change*. Journal of political economy, 1990. 98(5, Part 2): p. S71-S102.
- 12. Nelson R.R. and Phelps E.S. *Investment in humans, technological diffusion, and economic growth.* The American economic review, 1966. 56(1/2): p. 69-75.
- 13. Aghion P. and Howitt P.W. The economics of growth 2008: MIT press.
- 14. Churchill S.A., Yew S.L. and Ugur M. *Effects of government education and health expenditures on economic growth: a meta-analysis*, in *Greenwich Papers in Political Economy* 2015, University of Greenwich, Greenwich Political Economy Research Centre.
- 15. Barro R.J. *Economic growth in a cross section of countries*. The quarterly journal of economics, 1991. 106(2): p. 407-443.
- 16. Barro R. Health and Economic Growth. Annals of Economics and Finance, 2013. 14(2): p. 329-366.
- 17. Bloom D.E. D. Canning and Sevilla J. *The effect of health on economic growth: a production function approach.* World development, 2004. 32(1): p. 1 13.
- 18. Weil D.N. *Chapter 3 Health and Economic Growth*, in *Handbook of economic growth*, P. Aghion and S.N. Durlauf, Editors. 2014, Elsevier. p. 623-682.
- 19. Acemoglu D. and Johnson S. *Disease and development: the effect of life expectancy on economic growth.* Journal of political economy, 2007. 115(6): p. 925-985.
- 20.Eggoh J., Houeninvo H. and Sossou G.-A. *Education, health and economic growth in African countries*. Journal of Economic Development, 2015. 40(1): p. 93-111.

- 21. Maitra B. and Mukhopadhyay C.K. *Public spending on education, health care and economic growth in selected countries of Asia and the Pacific.* Asia-Pacific Development Journal, 2012. 19(2): p. 19 48.
- 22. Mokhtari F. Croissance endogéne dans une économie en développement et en transition Essai de modélisation Cas de l'Algérie, 2009, Universite Abou Bekr Belkaid Tlemcen: Tlemcen.
- 23. Ahmed S. and Bengana I. The reality of a long-term relationship between spending on education and economic An Econometric Study for the period (1964-2013). roa iktissadia review, 2016. 6(10): p. 49-69.
- 24. Messaili M. and Tlilane N.K. *An assessment of the contribution of health to economic growth in Algeria*. MPRA Paper, 2018(88013): p. 1-19.
- 25. Boussalem F., Boussalem Z., and Taiba A. *The relationship between public spending on health and economic growth in Algeria: Testing for co-integration and causality.* International journal of business and management, 2014. 2(3): p. 25-39.
- 26.Bokhari A.A. *Human capital investment and economic growth in Saudi Arabia: Error correction model.* International Journal of Economics and Financial Issues, 2017. 7(4): p. 104-112.
- 27. Pesaran M.H. and Shin Y. *An autoregressive distributed-lag modelling approach to cointegration analysis*, in *Econometrics and economic theory in the 20<sup>th</sup> century: The Ragnar Frisch Centennial Symposium*, S. Strøm, Editor 1999, Cambridge University Press Cambridge. p. 371-413.
- 28. Pesaran M.H., Shin Y., and Smith R.J. *Bounds testing approaches to the analysis of level relationships*. Journal of applied econometrics, 2001. 16(3): p. 289-326.

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#### THE ORIGINS OF HOMOSEXUALITY

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**Abstract.** Homosexuality is defined as a state of sexual attraction to an individual of the same sex. This behaviour does not only concern humans, but also all animal species on earth. But it is interesting to ask whether homosexuality can be limited to this definition? If so, then what about the married man with several children who has never had a homosexual relationship, but secretly spends his time on gay websites? What about this woman who is equally attracted to women and men? These are all questions that call for greater insight. The issue of homosexuality is more complicated than it seems. It is inappropriate to look at sexuality without addressing the fantasies and other urges that surround it.

**Keywords:** Homosexuality, heterosexuality, lesbianism, social roots, studies of sexuality, homophobia, non-heterosexual sexuality, Catholic Church position, pederasty, sodomy, sexual practices, transvestites, transsexuals, gay pride parades, HIV-AIDS, monogamy, queers.

**Rezumat.** Homosexualitatea este definită ca o stare de atracție sexuală față de o persoană de același sex. Acest comportament nu se referă doar la oameni, ci și la toate speciile de animale de pe pământ. Dar este interesant să ne întrebăm dacă homosexualitatea poate fi limitată la această definiție? Dacă da, atunci cum rămâne cu bărbatul căsătorit cu mai mulți copii care nu a avut niciodată o relație homosexuală, dar își petrece timpul în secret pe site-uri gay? Dar această femeie care este atrasă în egală măsură de femei și de bărbați? Toate acestea sunt întrebări care necesită o perspectivă mai bună. Problema homosexualității este mai complicată decât pare. Este nepotrivit să privim sexualitatea fără a aborda fanteziile și alte îndemnuri care o înconjoară.

**Cuvinte cheie:** Homosexualitate, heterosexualitate, lesbianism, rădăcini sociale, studii de sexualitate, homofobie, sexualitate non-heterosexuală, poziție în Biserica Catolică, pederastia, sodomie, practici sexuale, travestiți, transsexuali, parade ale mândriei gay, HIV-SIDA, monogamie, ciudati.

#### Introduction

Even today, homosexuality remains associated with something disturbing, stereotypical, sickly, sinful, or a wrong choice [1]. Because homosexuality is disorderly, because it contains a subversive potential, because its lifestyle is worrying, because it is

fought against, because it is regularised, we try to find out where it comes from [2, 3]. But this question implies that it is a copy of the original heterosexuality, that homosexuality or lesbianism are problematic [4]. Thus, the nature-culture debate has not spared the study of homosexuality, but the ideological divides have become blurred. Essentialists have sought to determine who homosexual people are, what their origin is, unique or plural, while constructivists have sought to determine the social roots of hetero/homosexualities or the workings of homophobia.

Homosexuality appeared in the 19th century in the classification of perversions, established by psychiatrists. To respond to illness and exclusion, it was necessary to demonstrate that homosexuality was a fact of nature, a condition that had always existed; it was necessary to place it in the categories of the universal. The Germans, Hirschfeld and Bloch, conducted a series of studies on sexuality and founded an institute. The essentialist strategy of the pioneers, and of those who were to follow them, however, entails its risks of confinement and its paradoxes; the constructivist approach does not escape this either. If it is true that homosexuality is an innate problem (hormonal, physiological or genetic), it becomes treatable. A huge amount of ingenuity has been invested in intervening with homosexuals, chemically or surgically, in order to cure them. In the face of the craze, even Freudian bisexuality has been a reason for patients to develop a unique desire for heterosexuality. However, the psychological approach suggests a major shift in the conception of sexual identity [5 - 8]. The focus shifts from the notion of species to that of sexual orientation. But, without questioning the heterosexism of the psychodynamic model, or homophobia, the idea of sexual orientation can lead to a redirection towards an adequate object of desire, the resolved Oedipus complex, or to a halt in personal development, in the case of the failure of such a goal. Although marginal, reversionary therapies remain. They carry the overtones of the psychiatrisation of homosexuality. Burke argues that similar therapies are used with children and adolescents whose gender does not match their biological sex. Their dissonance is seen as a risk of moving towards an abnormal, i.e. nonheterosexual sexuality [9]. Moreover, the essentialist approach allows one to validate one's hypotheses without having to move to the terrain of legal, medical or human science experts. It has become part of popular discourse. So, if you ask someone why they are gay, they may say that it is because they are "the same", that it is in them, that they were probably born that way. They may also ask you if you ask the same question to heterosexual people... Nevertheless, just because homosexuality has gone from being a social evil to a social fact does not mean that it is accepted. It is, at best, tolerated. Ethical reflection is always close when it comes to the place of homosexual men and women in society. Is it necessary to recall that the Catholic Church adopts an essentialist position that limits such widespread rights as those to marriage or reproduction [10]. Boswell's scholarly research has shown, however, that the Church began to crack down on homosexuality in the late Middle Ages [11]. Prior to this, the Church tolerated rites and customs that dated back to Greco-Roman times.

#### Hetero/Homosexualities or the Workings of Homophobia

To speak of 'homosexuality' during antiquity would be anachronistic [13]. Indeed, was it not then a question of pederasty, sodomy, a celebration of beauty and freedom? But several researchers trace the presence of a homosexual culture back to this period. De Cecco and Elia point out that men who practised sodomy with adolescents did not change the social hierarchy [14]. The adolescent adopted female passivity. As an adult, he became dominant.

He could then engage in homosexual practices and get married. He fulfilled his social role, although the interpretation of the latter was of the sexual margin. On the other hand, the Greeks, like the Romans, condemned a man who adopted a passive posture made adult or a woman who actively expressed her desire [15]. The definition of homosexuality in terms of sexual practices, species or identity thus mobilises different interventions depending on the perceived threat and the objectives of social control pursued by the authorities [16]. Constructivists therefore focus their attention, admittedly on the lifestyle of 'homosexuals' at various times, but more on the discourse.

How it is that love between men preoccupies different public authorities over time? From what perspective and in what ways do ecclesiastical, legal or medical authorities operate? What can we think of the fiscal control that is nowadays established over same-sex couples? What is the discourse on the recognition of gay couples? Constructivists conceptualise homosexual identity as a cultural variable that depends on the identity categories in force in a given space-time. In other words, I know that I am gay or lesbian to the extent that I have access to the discourse that represents me, names me as such [17]. Relationships to norms and community space are key aspects of this approach. As Weeks argues, sexuality emerges in as many local histories as there are narratives [18]. Yet, if identity categories are constructs, models can be deconstructed, questioned and relativised from the outside as well as the inside. Several feminists have stressed that the model of homosexuality, as it was medically constituted in the 19th century, does not apply to lesbianism, as lesbians constitute a minority divided between the homosexual and women's movements [19].

Moreover, lesbians have not provoked the same ire or attention as their male counterparts. It is only recently that it has been conceived that women's sexuality could exist outside of men [20]. However, in the early days, Rueling and Stocker called for independent research on lesbians at the German Institute for Sexuality. These activists called for women's sexual freedom outside the legal controls of men. But they also argued that the women's movement should address the issue of homosexuality, since reflections on the autonomy of the female body included lesbian relationships [21, 22]. The lesbian feminists of the 1970s would take up such a discourse by arguing that there could be no women's liberation without lesbian liberation, and vice versa [23 - 25]. While the fight against sexism became the priority of liberal, conservative and radical feminists, it was not until the latter came out of the wardrobe that heterosexism was questioned. But the critique of heterosexism will also continue within the gay movement.

#### Homosexuality as Emergence

"Coming out" is the leitmotif of the gay movement. As a "confession of the name, coming out is a pivotal step in the realisation of the homosexual identity [26]. It is an ethical choice for authenticity, militant in moving the boundaries between the private and the public. It is about bringing "what is not said" out into the open. To do this, one must be prepared to face a diversity of reactions. Since ignorance is widespread, as is concealment, saying one's homosexuality and living it in everyday life inevitably leads to educating those around one about this condition. Like a stigmatised characteristic, like certain disabilities or illnesses, the affirmation of homosexual orientation takes on the appearance of sharing a secret [27]. The gay movement believes that the more people disclose their homosexuality, the more effective

the demystification will be. The more socially respected people come out, the more effective demystification will be.

However, families rarely consider that they will have to deal with homosexuality. The lesbian or gay man has no role in the family. They have to deal with this role, while they are accused of threatening the family institution. The child who discloses his or her homosexuality often has to face a renunciation, similar to a mourning. Also, exclamations such as "You'll never have a child! I'm not going to be a grandmother" are very common. However, the homosexual person could have children if the law allowed it, if the experts' evaluations, during legal battles or adoption applications, approved his parental competence. But his or her sexuality breaks with the "device of sexuality", the procreative sexuality as developed in the naturalist paradigm. Doubts and fears are raised [23 - 25]. The parents therefore experience shock, negation which can be expressed through hostility, rejection and distance. They feel guilt and shame. If the parent remains at this stage, the relationship with the child will deteriorate. It is therefore recommended that the young person disclose his or her homosexuality only if he or she is prepared and ready to assume this disclosure. Many families who want to move forward, however, enter a restructuring phase. They greatly appreciate information on homosexuality and lesbianism, which allows them to acquire knowledge and to evaluate their prejudices and those of their entourage. Neisen reports that families with support are able to engage in a process of learning and adaptation that can lead to the integration of homosexual identity [28]. This support, often professional in origin, has an interest in presenting itself as knowledgeable about gay issues so that family members can easily turn to it. Support groups are also very popular, because they allow people to share their experiences and to play down the drama. The weight of silence is realised and new friendships can be made. These are valuable in getting through the ordeal and can replace the traditional support network. Furthermore, different stages in the development of gay identity have been identified. They do not necessarily follow one another, are often cyclical, repetitive and a source of back and forth. First, there is the stage of questioning one's sexual orientation. This is a period of confusion, cognitive reorganisation and demystification. Many comparisons are drawn between oneself and heterosexuals, often called straights [29]. One experiences fear, quilt, sometimes shame depending on one's previous education and socialisation. But the discovery of desire can also become a challenging journey. Between heterosexual public life and homosexual private life, one seeks a middle ground, one seeks to express oneself. This is the stage of affirmation. It is often very difficult for a person to identify as gay or lesbian because of prejudices and their socio-sexual path. This person may have been married, is raising children, refuses to be confined by identity categories, and does not identify with the values and representations of the "gay world". However, a certain tolerance is built up as relationships are forged, as acceptance into the homosexual community develops. Lovers' relationships are forged [30]. Experimentation, outings and involvement in the community follow. Pride sets in, as does the conviction to claim one's rights. We assert ourselves, we assert a way of loving: heterosexual men and women no longer have a monopoly on love. The boundaries between straights on the one hand and gays and lesbians on the other are being transformed and renegotiated.

However, several authors qualify the imperative nature of the "coming out", putting a brake on politicised identity. Coming out is not so much a performance, a rite of passage, as a series of rituals, a repetitive process that takes place on cognitive, emotional and behavioural levels [31]. These dimensions also correspond to the types of isolation that the

homosexual person may experience. The aim is to develop an approach that combats stigmatisation and seeks to understand the effects of heterosexism on the experience. Resistance to revealing one's homosexuality comes from the fact that one may not accept oneself well, from an internalized homophobia, but also from the fear of being directly discriminated against. Moreover, this discrimination falls on those close to one's family and on one's children. Moreover, the family and, to a lesser extent, friends and colleagues follow a similar process of disclosure. Coming out of the wardrobe is therefore a risk calculation and depends on circumstances and places; it is full of ambivalence and paradoxes [32].

Thus, not affirming one's lesbianism is a means of adaptation for some as much as of affirmation [33, 34]. By placing too much emphasis on the affirmation of homosexuality as an indicator of good mental health among gays, therapists risk psychologising heterosexism and singling out homophobia [35]. Furthermore, practitioners should consider ways of depathologising the taboo surrounding homosexuality and take note of the contradictory demands their clients must meet. Also, as early as the 1970s, therapists from all schools of psychology had recognised the importance of helping homosexuals and lesbians to develop a positive image of their sexual orientation [36]. Validate emerges as the golden word. Also, valuing words, welcoming coping and resistance strategies of people whose realities are obscured. By emphasising the quality of the links that homosexual people form, the worker reveals their power of action, their creativity. The determination of health professionals and psychologists has led to the removal of homosexuality from the list of morbidities [37, 38].

#### The Social Movements

Punctuated by numerous debates, the saga to de-psychiatrize homosexuality began in 1973 with a vote held at the American Psychiatric Association [39]. It continued until the removal of homosexuality from the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R), the book of diagnostic criteria in psychiatry, when its revised edition was published in 1987. In 1992, the World Health Organisation removed homosexuality from the list of diseases. But this victory would not have happened without the work of grassroots communities and their allies, men and women. The visibility of homosexuals, which confuses gender relations, has varied over time. Until the late 1960s, homophile organisations sought to confer a certain respectability on homosexuals. Through print and radio, they fought against criminal and pathological accusations about homosexuality by developing strategies of assimilation. Their successors reproached them for a certain moralism that was appropriate for the post-war period. Homophiles established networks of relationships, the precursors of lobbies, with politicians, church people and professionals. The artistic and literary world, more open to the liberalisation of morals, remained close to homosexuals and lesbians. However, most of the social life of homosexuals was clandestine, in Québec as elsewhere. Bars were seen as meeting places for experimenting with relationships that transgressed traditional male and female codes. There was also a certain democratization of sexual relations, as the following interview evokes when talking about a Montréal bar at the end of the 1950s: "At the Tropical Room [...] you had the opportunity to meet all strata. I saw a television star there, writers. [...] It was the democracy of sex; you got to see everybody. I had random encounters there that I wouldn't have had otherwise. I danced with a future minister at the Tropical! [...] Monroe [a female impersonator] used to do his shows there, on Sunday or Saturday nights, maybe every night. [...] And the guys were daring; there was a corner [...] in the back where we used to handle each other a bit. It was the place where most things

were done outside the rules. Furthermore, Maheu mentions three factors that have marked the American gay community and its demands [40]. These factors also had an impact on Québec communities. The first factor concerns the effervescent period of contestation of the established order in all its forms, in the 1960s and 1970s. The second factor is repression, where the Stonewall bar raid became a turning point. It was transvestites and transsexuals who sounded the alarm against the police. The demands for a positive identity would henceforth mark the movement, as illustrated by the gay pride parades. In Canada, in 1969, the Omnibus Bill partially decriminalised homosexual practices. In Québec, sexual liberation also benefited from an important catalyst with the national affirmation. In 1977, sexual orientation was included as a ground for non-discrimination in the Québec Charter of Human Rights and Freedoms. However, linguistic divisions within the gay and lesbian communities have become more pronounced [41, 42].

The third factor is the advent of HIV-AIDS, which has mobilised public opinion, medical science, health institutions and care practices [43]. Many lesbians who were already working in social and health care are joining gays in the fight against homophobia. The racial and ethnic diversities become more prominent and complete the heterogeneous picture of the homosexual community. The outings of black feminists, Latin American feminists, and gay men without money are shaking up the models put forward by activists, namely white women and men, middle-class citizens whose community ties are not multiple [44]. These critiques will relativise discrimination based on sexual identity, racism and economic exclusion, which are seen as fundamental problems. But the resistance against the anti-gay backlash, stimulated by fear of epidemic, homophobia and the search for blame, remains a priority for activists, and especially as prevention of HIV transmission and responsible virus and the adoption of responsible behaviour depend on it [45].

In the 1980s, the gay and lesbian communities restructured at the national level. Medicine continued to scrutinise homosexuality, especially male homosexuality, through epidemiological research and the discourse on safe sex. But sexual liberation no longer appears to be only an end. A new quest for meaning accompanied this awareness among homosexuals [46, 47]. They are bereaved, in debt, doubly and triply stigmatised, the importance of the network, of families of origin or recreated families, and the validation of emotional and financial commitments becomes even more important. The recognition of same-sex couples is now on the agenda.

On the other hand, the reproduction of the conjugal model, which values monogamy, economic interdependence and mutual support, suggests a hierarchy of conforming gays and lesbians on the one hand, and other members of the community on the other. Furthermore, without reform, this recognition of couples will re-confirm class relations inherent in the current tax system and social programs. In general, gay couples will continue to be better off financially than lesbian couples, and it is not yet clear what the power relations will be between spouses.

In Québec, a bill was unveiled in May 1999 to rectify some twenty statutory laws in order to grant the same rights and duties to women laws so as de facto to grant the same rights and duties to common-law couples, regardless of their sexual orientation. However, this bill continues to discriminate against homosexual men and women who would like to become parents or who are already parents. Even though heterosexual couples no longer form for the sole purpose of procreation, this dissociation between conjugality and parenthood is not institutionalised [48 - 50].

The current bill does, however, establish such a dissociation for couples. But a recent Supreme Court of Canada ruling struck down a section of Ontario's family law legislation that distinguishes between same-sex and opposite-sex couples. This ruling will therefore significantly influence the family legislation of the various Canadian provinces. This calls into question the progressive nature of the Québec project and calls into question a step-by-step activist strategy, even in an area as sensitive as family representations.

In addition, alongside this emergence from the homosexual ghetto by the public clandestinity and the need for anonymity are certainly factors that have contributed to a rationalisation of sexuality, at least among gay men. The cruising environments – bars, saunas, parks, cinemas and restaurants – have developed according to the specialisation and diversification of sexual practices. The ideal of marital sentimentality may be difficult to achieve in the presence of a sexual market, free of emotional "affective 'constraints' [51, 52]. Moreover, St-Père and Julien argue that gay men will maintain a higher marital satisfaction if their relationship is open. Gay men usually have an intense sexual life between the ages of 20 and 40 [53].

The drop in activity is said to be part of the myth of youth. Lesbians experience promiscuity in a different way. As with heterosexual women, sexuality and affectivity are usually less separated among lesbians. These lesbians favour monogamy even though they may change partners frequently in their social network. However, for both women and men, there is a relative indifference between active and passive roles and the maintenance of friendships after romantic separations.

#### **Intervening with Queers: Some Paradoxes**

It is always risky to make generalizations, especially about populations that remain difficult to reach. Empirical research has been sidelined since the early 1990s, when gay and lesbian studies were institutionalised. Empirical research, often conducted in sociology, aimed to document the oppressed experience of gay and lesbian people. However, this notion of oppression has shifted, particularly under the influence of the work of Michel Foucault [23 - 25]. Also, an important cultural, philosophical and literary current, called gueer, born mainly from semiotic and deconstructionist approaches, has aroused the interest of many researchers. A debate is currently raging between moderns and post-moderns, that is, between gays, lesbians and gueers. Queers argue that, in order to actualise themselves, they must manifest themselves outside the producer-reproducer, sexuality-creation relationship, outside the binary polarity of patriarchal identities; this is where gueers may already be, in an epistemology of desire. Queers therefore reject an essentialist conception of gender and science as an obligatory passage to knowledge. The gueer current deconstructs and criticises the liberal politics of modern social movements which, in exchange for rights and protection of minorities, promote rigid identity categories in the public space. "Homosexuality becomes normalized and enters the field of technocratic domination" [54, 55]. Queers therefore argue against the current tolerance of homosexuality, pointing out that homosexuality is tolerated as long as it conforms to a certain model [56]. The ambiguity of the relationship between men and women, gays and lesbians, blacks and whites, rich and poor has been reinforced by the dominant activist discourse. Moreover, transgender, transsexual or bisexual people have been left out of the picture, whereas sexual liberation was about breaking out of the categories of gender and sexual orientation for all. The queer current claims to join the rampant marginality with its overflow of labels, and to transgress the traditional relationship

of representation [57]. Yet, and this criticism is directed at postmodernists in general, how can power relations be articulated without clearly defined political interlocutors? But the question is: for whom, when and how are stable collective identities necessary for social action and change? Do some social movements fear deconstruction? For queers, homosexuality becomes a challenge to itself, not just to heterosexual society [58]. The speakers are thus called upon to question their objectives. Are they their own or those of their clients? To what extent does the pressure to come out not amount to reproducing dichotomies between heterosexuality and homosexuality, in order to conform to what and to whom? Do these dichotomies serve to create therapeutic distance? How can counsellors help the people who consult them to name themselves without fixing them in an identity category? The conception of homosexuality, as well as the ethical approach of the counsellors, makes it possible to accept the love choices of the other, to grasp his or her movement [59, 60]. As we have seen, this conception of homosexuality and lesbianism is based on scientific and militant discourse, and evolves according to the times. It is multiple and decisive for the intervention. In Québec, where courses on homosexuality are just beginning to be given in educational institutions, it remains to be seen how intervention with a homosexual population will develop [60]. Paradoxically, working with queers may require the construction of an ethic that is no longer based on the identity categories of gender or sexual orientation.

#### References

- 1. Séguin M. (1997). «L'homosexualité dans le magistère romain récent», dans G. Lapointe et R. Bisaillon (dir.), Nouveau regard sur l'homosexualité. Questions d'éthique, Montréal, Fides.
- 2. Ménard G. (1987). «La communauté gaie: accomplissement ou arraisonnement du désir homosexuel ?», dans A. Corten et M.-B. Tahon (dir.), La radicalité du quotidien: communauté et informatique, Montréal, VLB Éditeur.
- 3. Ménard G. (1994). «Identité homosexuelle et communauté gaie», Revue sexologique Sexological Review, vol. 2, n° 1.
- 4. Butler J. (1990). Gender Trouble: Feminism and the Subversion of Identity, New York, Routledge.
- 5. Adams B. (1987). The Rise of a Gay and Lesbian Movement, Boston, Twayne Publishers. ALTMAN, D. (1976). Homosexuel(le): oppression et libération, Paris, Fayard.
- 6. Ariès P. (1982). «Réflexions sur l'histoire de l'homosexualité», dans P. Ariès et A. Bégin, (dir.), Sexualités occidentales, Paris, Seuil.
- 7. Baker J. et Fishbein H. (1998). «The development of prejudice towards gays and lesbians by adolescents», Journal of Homosexuality, vol. 36, n° 1.
- 8. Bonneau M. (1998). «Le quotidien pluriel de la culture lesbienne: néo-tribalisme et espaces régionaux», Sociétés, n° 62.
- 9. Cabaj R. et Purcell D. (dir.) (1998). On the Road to Same-Sex Marriage, San Francisco, Jossey-Bass Publishers. CAIN, R. (1991). «Stigma management and gay identity development», Social Work, vol. 36, n° 1.
- 10. Chamberland L. (1993). «Remembering lesbian bars: Montreal, 19551975», dans R. Mendès-Leite et P.-O. de Busscher (dir.), Gay Studies from the French Cultures. Voices from France, Belgium, Brazil, Canada and the Netherlands, New York, Harrington Park Press.
- 11. Boswell J. (1994). Same-Sex Unions in Premodern Europe, New York, Villard Books.
- 12. Bouchard P et St-Amant J.-C. (1996). Garçons et filles. Stéréotypes et réussite scolaire, Montréal, Éditions du Remue-ménage.
- 13. Olivier L. et Noël R. (1994). «Michel Foucault: problématique pour une histoire de l'homosexualité», Revue sexologique Sexological Review vol. 2, n° 1.
- 14. De Cecco J. et Elia J. (1993). «A critique and synthesis of biological essentialism and social constructionist views of sexuality and gender-, Journal of Homosexuality, vol. 23, nos 3-4.
- 15. Chamberland L. (dir.) (1997a). Sociologie et sociétés. Homosexualités: enjeux scientifiques et militants, vol. 29, n° 1 (printemps), Montréal, Presses de l'Université de Montréal.

- 16. Dorvil H. et Mayer R. (2001). Etudes de cas et interventions sociales, volume II, Presses de l'Université de Ouébec.
- 17. Eldridge N. et L. Gilbert (1990). «Correlates of relationship satisfaction in lesbian couples,)», Psychology of Women Quarterly, n° 14.
- 18. Weeks J. (1995). Invented Moralities: Sexual Values in an Age of Uncertainty, New York, Columbia Press.
- 19. Welzer-Lang D., Dutey P. et Dorais M. (1994). La peur de l'autre en soi. Du sexisme à l'homophobie, Montréal, VLB Éditeur.
- 20. Mécary C. et DE LA PRADELLE G. (1998). Les droits des homosexuelles, Paris, Presses universitaires de France, coil. «Que sais-je ?», n° 3367.
- 21. PROBYN, E. (1995). «Queer belongings: The politics of departure», dans E. Grosz et E. Probyn (dir.), Sexy Bodies. The Strange Carnalities of Feminism, Londres, Routledge.
- 22. Rafkin L. (dir.) (1990). Different Mothers. Sons and Daughters of Lesbians Talk about their Lives, Pittsburg, San Francisco, Cleiss Press.
- 23. Foucault M. (1976). Histoire de la sexualité. La volonté de savoir, tome 1, Paris, Gallimard.
- 24. Foucault M. (1984a). Histoire de la sexualité. L'usage des plaisirs, tome 2, Paris, Gallimard.
- 25. Foucault M. (1984b). Histoire de la sexualité. Le souci de soi, tome 3, Paris, Gallimard.
- 26. Hocquenghem G. (1979). Race d Ep! Un siècle d'images de l'homosexualité, Paris, Éditions Libres-Hallier.
- 27. Healy T. (1999). «A struggle for language: Patterns of self-disclosure in lesbian couples», dans J. Laird (dir.), Lesbians and Lesbian Families. Reflections on Theory and Practice, New York, Columbia University Press.
- 28. Guillaumin C. (1992). Sexe, race et pratique du pouvoir L'idée de nature, Paris, Éditions Côté-femmes.
- 29. Julien D. et Chartrand É. (1997). «La psychologie familiale des gais et des lesbiennes: perspective de la tradition scientifique nordaméricaine», Sociologie et sociétés. Homosexualités: enjeux scientifiques et militants, vol. 29, n° 1 (printemps). NOUVEAUX VISAGES DE L'HOMOSEXUALITÉ.
- 30. Kinsman G. (1987). The Regulation of Desire: Homo and Hetero Sexualities, Montréal, Black Rose Books.
- 31. La Roche P. (1999). Les jeunes gais, lesbiennes et bisexuels-les et leur famille. Communication présentée dans le cadre du 5e symposium québécois de recherche sur la famille, Conseil de développement de la recherche sur la famille du Québec, Trois-Rivières, 5 novembre.
- 32. Clermont M. et Sioui-Durand G. (1997). L'adaptation des services sociaux et de santé aux réalités homosexuelles. Orientations ministérielles, Québec.
- 33. Adams B. (1985). «Structural foundations of the gay world», Comparative Studies in Society and History, vol. 27, n° 4 (octobre).
- 34. Escoffier J. (1992). «Generations and paradigms: Mainstreams in lesbians and gay studies», Journal of Homosexuality, vol. 24, nos 1-2.
- 35. Leznoff M. (1954). The Homosexual in Urban Society. Mémoire de maîtrise en sociologie, Montréal, Université McGill, dans L. Chamberland (1996). Mémoires lesbiennes, Montréal, Éditions du Remue-ménage.
- 36. Gonsiorek J. (1982). «An introduction to mental health issues and homosexuality», American Behavioral Scientist, vol. 25, n° 4.
- 37. Coenen M. (1998). «Helping families with homosexual children: A model for counseling», Journal of Homosexuality, vol. 36, n° 2. 150.
- 38. PROBLÈMES SOCIAUX TOME II ÉTUDES DE CAS ET INTERVENTIONS SOCIALES COMMISSION DES DROITS DE LA PERSONNE DU QUÉBEC (1994). De l'illégalité à l'égalité. Rapport de la Consultation publique sur la violence et la discrimination envers les gais et lesbiennes, sous la dir. du Comité de consultation F. Niemi, D. Carpentier, M. Morin et G. PatryBuisson, Montréal, Robert Sylvestre.
- 39. Thuillier P. (1982). «L'homosexualité devant la psychiatrie», La recherche, vol. 20, n° 213.
- 40. Maheu L., avec la collab. d'H. Lustiger-Thaler (1995). «Les mouvements sociaux : plaidoyer pour une sociologie de l'ambivalence», dans F. Dubet et M. Wieviorka (clin), Penser le sujet: autour d'Alain Touraine, Paris, Fayard.
- 41. Pollack M. (1982). «L'homosexualité masculine», dans R Ariès et A. Bégin (dir.), Sexualités occidentales, Paris, Seuil, p. 37-53.
- 42. Peers L. et Demczuk I. (1998). «Lorsque le respect ne suffit pas: intervenir auprès des lesbiennes», dans I. Demczuk (dir.), Des droits à reconnaître. Les lesbiennes face à la discrimination, Montréal, Editions du Remue-ménage, p. 77-127.
- 43. Perreault M. (1995). «MTS et SIDA: construction sociale d'une épidémie mondiale», dans E Dumont, S. Langlois et Y Martin (dir.), Traité des problèmes sociaux, Sainte-Foy, Institut québécois de recherche sur la culture, p. 197-221.

- 44. Plummer K. (1998). «Pasts, present and futures of the sociology of same sex relations», dans P.M. Nardi et B. Schneider (dir.), Social Perspectives in Lesbian and Gay Studies: A Reader, Londres, Routledge.
- 45. Ristock J. (1990). «Working dynamics in the social services: The relevance of sexual orientation to social service work». dans S. Stone Dale (dir.). Lesbians in Canada. Toronto. Between the Lines.
- 46. Bourgon M. et RENAUD G. (1991). «Sida: l'animation d'un groupe de proches et la recherche de signification».
- 47. Burke P. (1996). Intervention, n° 86. Gender Shock, New York, Anchor Books.
- 48. Demczuk I. et F. Remiggi (dir.) (1998). Sortir de l'ombre. Histoires des communautés lesbienne et gaie de Montréal, Montréal, VLB Éditeur.
- 49. Dorais M. (1993). «L'homosexualité, revue et non corrigée», Le médecin du Québec: La médecine gaie, vol. 28, n° 9.
- 50. Orais M. (1999). Éloge de la diversité sexuelle, Montréal, VLB Éditeur.
- 51. Renaud G. (1982). «Mouvement homosexuel et modernisation technocratique: l'exemple des services sociaux spécialisés pour les homosexuels», Revue internationale d'action communautaire.
- 52. Ricard N. (1998). Une exploration du phénomène des maternités lesbiennes. Mémoire de maîtrise en intervention sociale, Montréal, Université du Québec à Montréal.
- 53. St-Père F. et Julien D. (1999). Les variables reliées à la satisfaction conjugale chez les couples gais, lesbiens et hétérosexuels. Communication dans le cadre du 5e symposium québécois de recherche sur la famille, 5 novembre, Conseil de développement de la recherche sur la famille du Québec, Trois-Rivières.
- 54. Ristock J. (1990). «Working dynamics in the social services: The relevance of sexual orientation to social service work», dans S. Stone Dale (dir.), Lesbians in Canada, Toronto, Between the Lines.
- 55. Roderick T., S., Mclammon T. Long et Albred L. (1998). «Behavioral aspects of homonegativity», Journal of Homosexuality, vol. 36, n° 1. RUBIN, G. (1984). «Thinking sex: Notes for a radical theory of the politics of sexuality», dans C. Vance (dir.), Pleasure and Danger: Exploring Female Sexuality, Boston, Routledge et Kegan Paul.
- 56. Ryan B. et Frappier J.-Y. (1993). «Les difficultés des adolescents gais et lesbiennes», Le médecin du Québec: La médecine gaie, vol. 28, n° 9. SCOTT, J. (1988).
- 57. «Genre: une catégorie utile d'analyse historique», Les cahiers du Grif. Le genre de l'histoire, 37 / 38, Paris, Éditions Tierce, printemps. NOUVEAUX VISAGES DE L'HOMOSEXUALITÉ.
- 58. Rich A. (1981). «La contrainte à l'hétérosexualité et l'existence lesbienne», Nouvelles questions féministes, n° 1 (mars).
- 59. Moore D., J. Otis et Dedobbeleer N. (1994). «Analyse des besoins de formation d'intervenants ayant à oeuvrer en prévention du SIDA auprès des jeunes homosexuels ou bisexuels», Revue sexologique Sociological Review, vol. 2, n° 1.
- 60. Wittig M. (1980). «La pensée straight», Questions féministes, n° 7, février.

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# INFLUENCE OF SOCIAL MEDIA ON CONSUMER PURCHASING DECISIONS IN DURBAN

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**Abstract.** This study examined the influence of social media on Durban customers' purchasing decisions and the extent to which social media influences consumers' decision-making while buying products. The primary purpose of this study was to determine whether consumers are eager to interact with products on social media platforms to obtain more information about product features, benefits, performance, prices, promotions, and reputation. An exploratory study employing a quantitative research approach was carried out, with questionnaires distributed to 400 Durban consumers over the age of 18 who were regular social media users. Descriptive and inferential statistics were employed in this study. The data were analyzed using the Statistical Package for Social Sciences (SPSS). The study discovered that social media is a very powerful communication tool that can be used to influence consumers' purchasing decisions, and consumers stated that the more they knew about a product through social media, the more they desired to buy it, and vice versa. Businesses should incorporate promotional events, contests, and competitions on their social network product pages to enhance awareness, social media platform traffic, and customer engagement.

**Keywords:** Consumer Behaviour, Buyer Decision-Making, Social Influence Theory, Social Media.

Rezumat. Acest studiu a examinat influența rețelelor sociale asupra deciziilor de cumpărare ale clienților din Durban și măsura în care rețelele sociale influențează luarea deciziilor consumatorilor în timp ce cumpără produse. Scopul principal al acestui studiu a fost de a determina dacă consumatorii sunt dornici să interacționeze cu produsele pe platformele de social media pentru a obține mai multe informații despre caracteristicile produsului, beneficii, performanță, prețuri, promoții și reputație. A fost realizat un studiu exploratoriu care folosește o abordare de cercetare cantitativă, cu chestionare distribuite la 400 de consumatori Durban cu vârsta de peste 18 ani care erau utilizatori obișnuiți ai rețelelor sociale. În acest studiu au fost folosite statistici descriptive și inferențiale. Datele au fost analizate folosind Pachetul Statistic pentru Științe Sociale (SPSS). Studiul a descoperit că social media este un instrument de comunicare foarte puternic care poate fi folosit pentru a influența deciziile de cumpărare ale consumatorilor, iar consumatorii au afirmat că, cu cât știu mai multe despre un produs prin intermediul rețelelor sociale, cu atât își doresc mai mult să-l cumpere și invers. Companiile ar trebui să includă evenimente promoționale, concursuri și competiții pe paginile

lor de produse din rețelele sociale pentru a spori gradul de conștientizare, traficul platformei de social media și implicarea clienților.

**Cuvinte cheie:** Comportamentul consumatorului, Luarea deciziilor cumpărătorului, Teoria influenței sociale, Social Media.

#### Introduction

Given the circumstances, it is unclear whether businesses in the Durban area are utilizing social media as a substantial component of their promotional campaigns. It is also unknown what Durban consumers' attitudes regarding online product research are during the consumer purchasing decision process; more specifically, the effect of social media marketing when utilized as a research tool. Therefore, the purpose of this study is to investigate the impact of social media on Durban customers' purchasing decisions and the extent to which social media influences consumers' decision-making while purchasing goods. It should be underlined that social media has had an irreversible impact on the purchasing cycle of consumers. Rather than simply completing a purchase, today's buyers have added two critical vital skills to the purchasing process that occur before and after the transaction. Consumers now undertake internet research on the products they intend to purchase by reading blog posts, reviews, forums, tweets, and other consumers' opinions. These frames of view surely impact individual judgments. Observing what other consumers remark on social media and participating in their arguments is now part of the consumer decision-making process. Website ratings, comments, reviews, and other features are used by social media to disseminate consumer opinions about products to a large extent, if not totally [1, 2].

#### Social Media

Since the dawn of computer networking, the internet has served as a social gathering place, earning it the title "social media." Collaboration, sharing, and communications are facilitated through blogs, social networks such as Facebook, and microblogging systems such as Twitter. Web 2.0 broadcasting technologies that translate and transmit media monologues into social-media websites are used in social media. Though wired communication is not a new notion, it is a vastly networked technology that allows massive, online communication available to everyone with an internet connection anywhere in the world. Furthermore, it improves the interactive nature of online conversations [3, 4].

According to [5], social media is intended for advertising, but it may also be used to communicate with customers. Social media, on the other hand, allows consumers and potential customers to engage directly with product managers and marketers. Meanwhile, the worldwide internet consumer market is thriving; most consumers use social media as a tool to search for and purchase products, and product managers and marketers make use of this opportunity to sell their products. According to [6], social networking sites are unquestionably popular. Facebook and YouTube are two of the top three websites in the globe, with Twitter and LinkedIn ranking eighth and thirteenth, respectively. Furthermore, according to [7], Instagram and Facebook are thriving. A quarter of all South Africans now use Facebook, while Instagram had the biggest growth of all South African social networks in 2015, followed by Twitter, which boosted its user base marginally, and YouTube, a video-sharing network. Each year is expected to provide new highlights as the number of social media users continues to grow and existing users' usage escalates.

In light of this, [8] assert that social media allows organizations to communicate with hundreds or even thousands of customers all over the world and that firms are no longer the sole source of product communication. Customers becoming devotees of products on social media networks and using social media as a growing source of product information leads to the belief that social media, in addition to traditional marketing communication channels, has a substantial impact on a product's success. [9], on the other hand, says that traditional marketing tactics have proven ineffective in an era disrupted by geopolitical, social, cultural, technological, and economic spheres. Consumer needs, attitudes, and demands have also changed dramatically, necessitating current promotional strategies. Thus, information gained from social media networks has a greater influence on encouraging consumer purchases than information obtained from conventional sources [10].

While the subject of social media has received a lot of attention, and businesses are beginning to incorporate it into their marketing strategies, academia has paid insufficient attention to the strategic and commercial aspects of this phenomenon, particularly its relevance and significance as a strategic marketing instrument. Social media is made up of several technologies, but they all share the same basic goal of increasing contact. Forums, blogs, microblogging, social bookmarking, podcasts, videos, image sharing sites, social networking sites, virtual communities such as online gaming, and community-moderated content such as wiki are examples of social media platforms [11, 12].

It makes sense to use social media in an internet marketing setup because it is another online medium by which consumer acquisition efforts may be carried out. Online marketers will be able to understand the behaviour of social media users as a result of this, and online metrics to assess social media activity must be developed [13]. Not just in our daily lives, but also in our societal relationships, has social media revolutionized. Social media use has steadily gained traction as a marketing tool for forming and managing consumer relationships, and it has also been found to influence consumer purchasing behaviour [14]. This means that marketing strategies must be carefully crafted and implemented to facilitate transactions under dynamic and changing environmental conditions to create customer connections and influence consumer behaviour [15, 16] conclude that the rapid shift and development of social media and its web makeover has and will continue to revolutionize marketing, shopping, socializing, publishing, gaming, and music.

#### **Social Influence Theory**

The term "social influence" refers to the process through which people's behavior changes as a result of the encouragement of others. The ability to exert social influence is dependent on the relationship between people, timing, network distances, network, individual features, and so on. Social networks play an active role in information dissemination and broad marketing, especially when combined with other methods such as endorsement systems and commerce. Impact intensification in social networks is defined as the search for a subset of nodules known as a seed set that can generate the greatest number of consumers sharing the offered information [17, 18].

According to [19], the efficiency of mass leaders can be attributed to the so-called 'liking' norm. The more people like someone, the more they will try to build meaningful relationships with them. As a result, a mass leader is effective because the use of prevalent social networks increases the likelihood of information reaching a specific crowd, as well as the increasing chances that individuals in the network react to information. After all, it comes from someone with whom they identify. Therefore, consumers can easily note and trigger each other's sentiments because of the popularity of social networks [20].

#### **Consumer Behaviour and Buyer Decision-Making**

Consumer behavior is defined by [21] as the actions that consumers take when searching for, purchasing, using, assessing, and disposing of things and services that they believe will meet their requirements. Consumer behaviour is concerned with how individuals, families, or households decide how to spend their available resources (time and money) on consumption-related things. This covers what they buy, why they buy it, when they buy it, where they buy it, how frequently they buy it, how frequently they use it, how they evaluate it after they acquire it, the impact of such evaluations on future purchases, and how they dispose of it. Consumer behavior is influenced by a variety of factors, including psychological and psychographic factors.

Nonetheless, it must be emphasized that buyer behaviour is closely related to their motivation to act [22]. Furthermore, purchasing behaviour does not always represent the acts of a single consumer but can involve a large number of individuals. Buyer behaviourists might take on more than one role. Others may play the position of influencer and have an impact on the outcome of a decision, and others, or all, may be users [23].

All products that people recognize are eventually influenced by the activities involved in perception. Perception begins to be active as soon as humans begin to search for features to focus on, whether it be a product or an environment in which they are constantly immersed. Consumers are guided by the perception to focus on information that has piqued their attention [24]. Consumer decisions, according to studies, are the product of a composite organization of mindful efforts [25], and they are also the result of consumers' unconscious

psychological practices [26].

According to [27], the only way to define buyer decision-making is on a scale ranging from extremely low to very high. Repetitive selection is done on the spur of the moment, with only a minimal conscious effort. As a result, it includes neither planning for information search. Intermediary problem solving typically entails a partial search for information and planning. Shoppers are rarely motivated to thoroughly evaluate each alternative; as a result, they adopt mild decision quidelines or experiments to aid their decision-making. Most customers in this area do not have well-established methods for evaluating products and may be unfamiliar with the product's category. For uncommonly purchased, one-of-a-kind products or services, users typically engage in extensive problem-solving. Since each decision here is high-risk, customers frequently expend a lot of work and time gathering information and



**Figure 1.** Consumer decision making process theory (model). Source: [28].

weighing options before making a purchase [28] recommends that they follow the instructions described below.

#### Research Methodology

The study was exploratory and descriptive since it did not attempt to give evidence that could be used to make a decision; nonetheless, it is a type of research that is undertaken with the intention that future research will be required to provide more conclusive evidence [29].

The study employed a cross-sectional quantitative research approach to investigate the influence of social media on the purchasing decisions of Durban consumers. Customers aged 18 and up who are active on social media sites and live in Durban were the study's target population. Respondents were recruited using non-probability sampling methods such as convenience and purposive sampling. Even though, the planned sample size was 450, the response rate was 400. A survey was done with a standardized questionnaire consisting of 45 questions to collect primary data from consumers, and participation in the study was entirely voluntary. A pre-test with 10 questionnaires given to users was conducted to verify the validity of the measurement instrument. The questionnaires were distributed via email and social media networks. The Statistical Package for the Social Sciences was used to analyze the data collected for this study, which included both descriptive and inferential statistics (SPSS version 20).

#### **Results**

|           |         |                    | Gender |        | <b>-</b> |
|-----------|---------|--------------------|--------|--------|----------|
|           |         |                    | Male   | Female | — Total  |
|           |         | Count              | 38     | 39     | 77       |
| 1         | 18 - 19 | % within Age group | 49.4%  | 50.6%  | 100.0%   |
|           | 18 - 19 | % within Gender    | 17.5%  | 21.3%  | 19.3%    |
|           |         | % of Total         | 9.5%   | 9.8%   | 19.3%    |
|           |         | Count              | 150    | 111    | 261      |
|           | 20 20   | % within Age group | 57.5%  | 42.5%  | 100.0%   |
|           | 20 – 29 | % within Gender    | 69.1%  | 60.7%  | 65.3%    |
|           |         | % of Total         | 37.5%  | 27.8%  | 65.3%    |
|           | 30 - 39 | Count              | 22     | 22     | 44       |
| Age group |         | % within Age group | 50.0%  | 50.0%  | 100.0%   |
| (years)   |         | % within Gender    | 10.1%  | 12.0%  | 11.0%    |
|           |         | % of Total         | 5.5%   | 5.5%   | 11.0%    |
|           | 40 - 49 | Count              | 4      | 6      | 10       |
|           |         | % within Age group | 40.0%  | 60.0%  | 100.0%   |
|           |         | % within Gender    | 1.8%   | 3.3%   | 2.5%     |
|           |         | % of Total         | 1.0%   | 1.5%   | 2.5%     |
|           |         | Count              | 3      | 5      | 8        |
|           | F0 F0   | % within Age group | 37.5%  | 62.5%  | 100.0%   |
|           | 50 – 59 | % within Gender    | 1.4%   | 2.7%   | 2.0%     |
|           |         | % of Total         | 0.8%   | 1.3%   | 2.0%     |
|           |         | Count              | 217    | 183    | 400      |
|           |         | % within Age group | 54.3%  | 45.8%  | 100.0%   |
| Total     |         | % within Gender    | 100.0% | 100.0% | 100.0%   |
|           |         | % of Total         | 54.3%  | 45.8%  | 100.0%   |

Table 1

The male-to-female ratio is nearly 1:1. (54.3 % and 45.8 % respectively). Respondents aged 50 to 59 made up the smallest category, accounting for 2.0 % of the entire sample. This was followed by the 40-49 age group, which accounted for 2.5 % of the total sample.

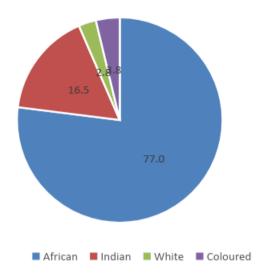
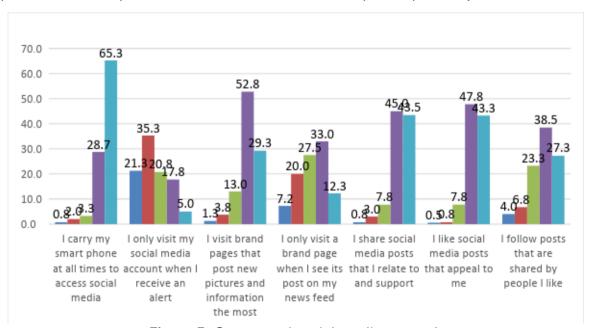


Figure 2. Race of respondents.

The great majority of respondents (77.0 %) were African, with White respondents constituting the smallest grouping (2.8 %). In that order, Indian and coloured respondents made up 16.5 % and 3.8 % of the total sample, respectively.



**Figure 3.** Consumers' social media network usage.

"I only access my social media account when I receive an alert," had the highest level of disagreement (56.6 %). However, more respondents stated that they continue to browse their social media platforms without receiving any notifications. The statement "I carry my phone with me at all times to use social media" received the greatest level of agreement. The product websites with the most recent pictures and information are visited by 82.1 % of respondents. Only 88.5 % of the consumers polled in this study agreed to share social media postings that they relate to and support, while 91.1 % liked social media posts that appealed to them and only 65.8 % agreed to follow social media posts made by people they like.

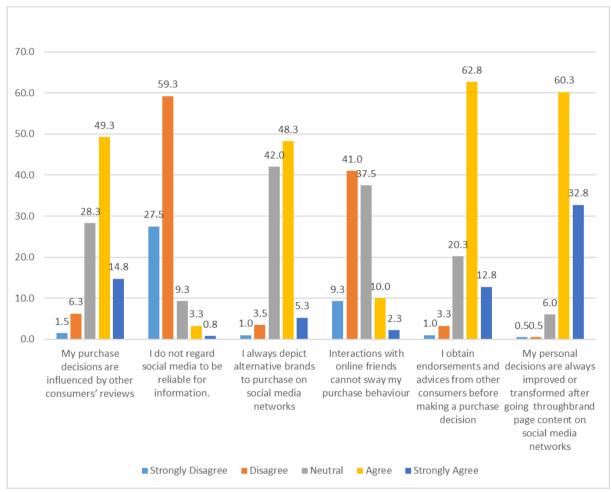
Table 2

|  | Effectiveness of social media |          |         |       |                   |         |
|--|-------------------------------|----------|---------|-------|-------------------|---------|
|  | Strongly<br>Disagree          | Disagree | Neutral | Agree | Strongly<br>Agree | p-value |
| Social media is the best communication channel for interacting with products   | 0.8                           | 1.3      | 2.0     | 50.3  | 45.5              | 0.00    |
| I do not rely on information acquired on social media than the one acquired from commercial adverts                          | 22.5                          | 57.3     | 17.0    | 2.8   | 0.5               | 0.00    |
| I never go on a product's social media page to obtain information on its specifications, performance, prices, and promotions | 26.8                          | 53.8     | 15.5    | 3.0   | 1.0               | 0.00    |
| I monitor what other people post on products   | 0.5                           | 1.8      | 4.0     | 48.8  | 45.0              | 0.00    |
| I am loyal to products that communicate effectively and provide prompt responses to my inquiries                             | 0.5                           | 1.8      | 4.0     | 48.8  | 45.0              | 0.00    |
| I do not like interacting with other consumers on social media platforms   | 17.5                          | 41.0     | 28.0    | 9.8   | 3.8               | 0.00    |

The results demonstrate a variety of scoring patterns, with high scores for both agreement and disagreement with the statements about the usefulness of social media. All other scores are lower than the degree of indecision. There is also a large disparity in the level of agreement and disagreement. The statement "social media is the preferred

communication channel for interacting with products" has the highest level of agreement at 95.8 %. This was followed by "I check what other people post on products" and "I am loyal to products that communicate effectively and provide timely solutions to my concerns," with 93.8% agreement on both assertions.

In recent times, consumers want to interact with products on social media platforms in the same way that they interact with their peers. As a result, because social media has become an important communication medium between customers and companies, products must learn how consumers build value. The internet and social media have dramatically altered product-to-consumer relationships, which have become bidirectional, and in some cases, entirely consumer-to-consumer [30, 31].



**Figure 4.** Social media and consumer decision making.

Figure 4 depicts several scores with differing degrees of indecision (neutral). Three of the variables had values of more than 25%. The statement "I do not believe social media to be reliable for information," which states that consumers trust information provided on social media to some extent, received the most criticism (86.5 %). "My personal decisions are always improved or transformed after going through a product content on social media networks," and "I obtain endorsements and advice from other consumers before making a purchase decision," received the highest agreement scores of 93.1 % and 75.6 %, respectively. This shows that social media has a substantial impact on the product selection decisions of customers.

#### **Conclusions and Recommendations**

The empirical findings of this study suggest that consumers currently live in social media environments, hence products should make social media networks their home. Social media is tremendously influential in consumer decision-making, and it may make or break a product. As a result, marketers and product managers should incorporate social media into their marketing, promotional, and advertising campaigns. Marketers should be strategic in their product offerings and make them active and consistent across all social media platforms, with a clear understanding of the target audience's specific product expectations and values, to gain a long-term relationship and to improve sustain their competitive advantage by ensuring that through these platforms they retain their market share.

It can also be concluded that consumers search for products on a product's social media platforms or through their websites. Customers who have used a product or service typically post their comments, reviews, and opinions on social media. As a result, social media is the most trustworthy source of information for both customers and products, as social media networks can be used not only to market products but also to learn about the product's target market. Furthermore, social media has a significant impact on consumer product selection being that it creates a certain perception and provides ways in which products can be utilized. The level of influence that social media has on consumers can either break or make a product in the marketplace because it has a significant impact on consumers' decision-making process.

#### References

- 1. Agresta S., Bough BB. Perspectives on social media marketing. Nelson Education, 2010.
- 2. Evans D. Social media marketing: An hour a day. John Wiley & Sons, 2010.
- 3. Barefoot D., Szabo J. Friends with benefits: A social media marketing handbook. No Starch Press, 2009.
- 4. Brennan B., Schafer L. *Branded!: How retailers engage consumers with social media and mobility.* John Wiley & Sons, 2010.
- 5. Sema P. *Does social media affect consumer decision-making*. Johnsons and Wales University, Feinstein Graduate school. 2013, 25, pp. 243-70.
- 6. Boulianne S. *Social media use and participation: A meta-analysis of current research.* Information, communication & society. 2015, 18 (5), pp. 524-38.
- 7. Worldwideworx and Fuseware. *South Africa Social media landscape* [online]. 2016. [17.07.2021]. Available at: www.worldwideworx.com
- 8. Bruhn M., Schoenmueller V., Schäfer DB. *Are social media replacing traditional media in terms of brand equity creation?*. Management research review. 2012, 35 (9), pp. 770-790.
- 9. Mukherjee K. *Social media marketing and customers' passion for brands*. Marketing intelligence & planning. 2019, 38 (4), pp. 509-522.
- 10. Okazaki S. *Social influence model and electronic word of mouth: PC versus mobile internet.* International Journal of Advertising. 2009, 28 (3), pp. 439-72.
- 11. Boswell W. *Social media: what is it? Available* [online]. 2016. [21.2.2021]. Available at: https://www.lifewire.com/social-media-what-is-it-3481713
- 12. Constantinides E, Romero CL, Boria MA. *Social media: a new frontier for retailers?* European retail research. 2008, 22, pp. 1-28.
- 13. Salt S. Social location marketing: outshining your competitors on Foursquare, Gowalla, Yelp & other location sharing sites. Pearson Education, 2011.
- 14. Ruane L., Wallace E. *Generation Y females online: insights from brand narratives*. Qualitative Market Research: An International Journal. 2013, 16 (3), pp. 315-335.
- 15. Hoffman KD. Marketing principles and best practices. Thomson South-Western, 2005.
- 16. Brennan B., Schafer L. *Branded!: How retailers engage consumers with social media and mobility.* John Wiley & Sons, 2010.

- 17. Lu WX., Zhou C., Wu J. *Big social network influence maximization via recursively estimating influence spread.* Knowledge-Based Systems. 2016, 113, pp. 143-54.
- 18. Peng L., Cui G., Zhuang M., Li C. *Consumer perceptions of online review deceptions: an empirical study in China*. Journal of Consumer Marketing. 2016, 33 (4), pp. 269-280.
- 19. Abrahamse W., Steg L. *Social influence approaches to encourage resource conservation: A meta-analysis*, Global environmental change, 2013, 23 (6), pp.1773-85.
- 20. Li X., Cheng X., Su S., Li S., Yang J. *A hybrid collaborative filtering model for social influence prediction in event-based social networks*. Neurocomputing. 2017, 230, pp. 197-209.
- 21. Schiffmen LG, Kanuk LK. Consumer Behaviour. Pearson Education Inc, 2009.
- 22. Andersone I, Gaile-Sarkane E. Consumer expectancy theory for business. *InThe 6th International Scientific Conference "Business and Management 2010*, Vilnius, 13–14 May 2010, pp. 321-327.
- 23. Hoyer WD., MacInnis DJ., Peters R. Consumer Behaviour. Andover: Cengage Learning, 2013.
- 24. Jansson-Boyd CV. *Quantitative research: Its place in consumer psychology. In Quantitative Research Methods in Consumer Psychology.* Routledge, 2018.
- 25. Foxall Gr., Oliveira-Castro Jm., James Vk., Schrezenmaier Tc. Consumer behaviour analysis and the behavioural perspective model. Management Online Review (MORE) [online]. 2011. [14.10.22]. Available at: http://dro.dur.ac.uk/7962/1/7962.pdf
- 26. Bargh JA. Losing consciousness: Automatic influences on consumer judgment, behavior, and motivation. Journal of consumer research, 2002, 29 (2), pp. 280-5.
- 27. Kardes FR, Cline TW, Cronley ML. Consumer Behavior: Science and practice. Cengage Learning, 2011.
- 28. Riley J. Buyer *behavior-The decision-making process* [online]. 2012. [22.03.2021]. Available at: https://www.tutor2u.net/business/reference/marketing-buyer-behaviour-the-decision-making-process
- 29. Babin Bj., Zikmund Wg. Exploring marketing research. Cengage Learning, 2015.
- 30. Campbell C., Ferraro C., Sands S. *Segmenting consumer reactions to social network marketing*. European Journal of Marketing. 2014, 48 (3/4), pp. 432-452.
- 31. Dootson P., Beatson A., Drennan J. *Financial institutions using social media–do consumers perceive value?*. International Journal of Bank Marketing. 2016, 34 (1), pp. 9-36.

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# CRIME AND SPORT PARTICIPATION: AN ECONOMETRIC MODEL WITH SIMULTANEOUS EQUATIONS APPROACH

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**Abstract.** Sport in all societies' leads to a return on social capital. Many politicians use sports-based programs to reduce crime in society because sport plays an important role in the social development of societies. On the other hand, crime causes insecurity in the neighborhood, and when people realize their fear of crime, they reduce their social activities, such as sports participation. Therefore, this study determines the interaction effect between crime and sport participation and we test an econometric model with simultaneous equations approach using the two-stage least squares method (2SLS). We used panel data of all provinces of Iran from 2004 - 2017. The results showed that a significant and negative interaction effect exists between crime and sport participation. Also, the number of coaches, sport facilities, and, sport budget have a significant and positive effect on sport participation. Per capita GDP has a significant and negative effect on crime and per capita GDP"×"sport participation has a significant and positive effect on crime. Finally, drugs have a significant and positive effect on crime.

**Keywords:** *crime*, *simultaneous equations*, *sport participation*.

**Rezumat.** Sportul în toate societățile duce la o rentabilitate a capitalului social. Mulți politicieni folosesc programe bazate pe sport pentru a reduce criminalitatea în societate, deoarece sportul joacă un rol important în dezvoltarea socială a societăților. Pe de altă parte, criminalitatea provoacă insecuritate în cartier și, atunci când oamenii își dau seama de teama lor de criminalitate, își reduc activitățile sociale, cum ar fi participarea la sport. Prin urmare, acest studiu determină efectul de interacțiune dintre criminalitate și participarea la sport și testăm un model econometric cu abordare a ecuațiilor simultane folosind metoda celor mai mici pătrate în două etape (2SLS). Am folosit datele panoului din toate provinciile Iranului din 2004 - 2017. Rezultatele au arătat că există un efect de interacțiune semnificativ și negativ între criminalitate și participarea la sport. De asemenea, numărul de antrenori,

facilitățile sportive și bugetul pentru sport au un efect semnificativ și pozitiv asupra participării la sport. PIB-ul pe cap de locuitor are un efect semnificativ și negativ asupra criminalității, iar PIB-ul pe cap de locuitor"×"participarea la sport are un efect semnificativ și pozitiv asupra criminalității. În cele din urmă, drogurile au un efect semnificativ și pozitiv asupra criminalității.

**Cuvinte cheie:** criminalitate, ecuații simultane, participare la sport.

### Introduction

The relationship between crime and sport participation is an important issue. Juvenile delinquency is a serious problem in society and causes financial and social expenditures such as establishment of police and justice system, financial and emotional damages to victims, and the effect of criminal behaviour on criminals and their families. Youth crime prevention programs include a vast variety of programs and activities [1]. Sport-based interventions are considered as low-cost and peaceful programs that have positive effects on the development of youths [2]. Generally, evidences address positive effects of physical activities on crime prevention [3]. On the other hand, in some countries such as the United States, fear of being a crime victim is a barrier against sport participation and physical activity [4]. Studies have shown that in addition to direct effects of crime and violence on factors such as access to parks and outdoor recreation, crime has a negative effect on physical activity. Objective presence of crime and mental understanding of insecurity lead to a relationship between crime and low physical activity [5].

Crime is just one of many serious problems within Iran. There is widespread concern in Iran regarding rising crime rates [6] and the effect of criminal policy and crime prevention programs [7]. According to Dousti, Goodarzi [8] government intervention in sport, as well as recreation and leisure, in Iran is increasingly prominent and sophisticated. Sport is increasingly and inextricably linked to a variety of cultural, economic, environmental and political spheres. Iranians participate in a variety of traditional and modern sports, but not all sports are highly organized or well governed. Therefore, Iran is an ideal contact to examine the link between crime and sport participation

It is within this context that this study examines the interaction effect between crime and sport participation in Iran. The study addresses two fundamental questions: (1) Does crime impact sport participation; and, (2) Does sport participation impact crime? This study used simultaneous equations econometric model using the two-stage least squares method (2SLS) to investigate crime and sport participation simultaneously. The study also included a number of control variables. For sport participation, these control variables were the number of coaches, the number of facilities and government funding of sport. For crime, the control variables were per capita GDP and drugs.

### Theoretical Background and Relevant Literature

The beneficial effect of sports and sports participation on society is predictable and obvious. Some specific benefits are usually expected, including: (1) General health through physical activity. (2) Strengthen human capital through the development of knowledge, motivation, skills and readiness for personal endeavor. (3) Active citizenship, social inclusion and integration. In summary, Sports seems to increase individual and social well-being. Sport as a pure economic commodity forms the field of professional sports economics that has been expanding in recent years. In addition, the sports system was interpreted as a sub-foreign

policy. In fact, success in sports has helped most countries, such as the Soviet Union, East Germany, Cuba, and other socialist countries, gain international recognition and prestige [9]. In general, sport has a potential to improve the lives of individuals and communities and it create positive social impacts in society. Academic interest and research has grown into the social impact of sport along with the growing recognition and use of sport as a political tool for achieving broad social outcomes. Recent and historical evidence suggests that sport provides social benefits in terms of improving health, reducing crime, improving education, and increasing mental well-being [10]. Huang and Humphreys found a positive relationship between happiness and sports participation. Both men and women enjoy sports participation and men benefit more. Also, Davies, Taylor [10] In a study on the Social return on investment through sports participation in the UK concluded that for every £1 invested in sports, £1.91 of social benefits are generated. Hoye, Nicholson [11] Described how sport and its social benefits have increased dramatically around the world and it is evident in the sports policies of various countries, including Australia, New Zealand, and Canada. The Australian Government's policy argues for the importance of sports participation for physical and mental health, and states that sport contributes to confidence and self-esteem and reduces crime rates. Canada's sports policy recognizes the positive effects of sport on individuals and communities.

This policy argues that sport is potentially a powerful factor in social change [10]. These examples show that the importance of sports and sports participation goes beyond its role in physical strength and emphasizes the role of sports in the social development of countries.

Before presenting the main purpose of this research and expressing the background literature, it is important to define the two key terms related to the presented research. These are sports participation and crime. Sport is a broad term that is widely defined. Many sport policymakers in Europe, including the UK Sports Councils of England, Northern Ireland, Wales and Scotland, use the Council of Europe's definition of sport: sport refers to all forms of physical activity that take place through occasional or organized participation, with the aim of expressing or improving physical fitness and mental well-being, building social relationships, or gaining results at competitions at all levels [10]. The definition presented in this paper provides an econometric definition of sports participation and it is defined using the report of the Statistics Center of Iran in this study: Number of organized athletes who have a sports insurance card and regularly (depending on the season of sports) to go to the sports clubs to do sports and their presence in the sport clubs is registered in special offices and usually have a membership card. Information about participation in various sports such as football, basketball, volleyball, wrestling, field running, etc. can be found in the information of the Statistics Center of Iran, and this research uses the sum of the participants of sports. This number is calculated separately for each province of Iran from 2004 to 2017 because this research uses panel data.

Also, numerous definitions of crime and fear of crime have been proposed in various studies. Ferraro and LaGrange [12] Conceptual framework provides an effective starting point for defining fear of crime. They divided fear of crime into "public" and "personal" fears. Public fear focuses on the general perception of the danger of perceiving crime in an area. According to Ferraro and LaGrange, many surveys purport to measure personal fear but instead measure general fear. For example, commonly used questions such as "how safe would you feel walking alone at night in your neighbourhood?" are measures of perceived risk of crime [12] Personal fear of crime is more specific and measures a person's sense of security more clearly.

While there are some variations, it basically describes personal fear as a threat to becoming a victim of crime [13]. Also, Covington and Taylor [14] define fear of crime as an emotional response to the possibility of physical harm in a criminal activity. But, this study provides an econometric definition of crime according to the information of the Statistics Center of Iran and the report of the Iranian police: includes the number of crimes registered in the police force, which causes insecurity in the neighborhood and fear of crime. These crimes include Intentional homicide, unintentional homicide, Accidental deaths, Beaten and injured, Threats, coercion and reluctance, pretending to be stabbed and poisoned, This number is calculated separately for each province of Iran from 2004 to 2017 because this research uses panel data and all variables must be set as data panels.

Exposure to crime is a problem because it increases stress and psychological problems [5]. Worldwide, it is estimated that at least 300 million young children less than five years are exposed to violent crime in society [15]. In the Netherlands, almost 34% of offenders in 2014 were less than 25 years old. Assink, van der Put [16] Concluded when young people commit crimes, they are more likely to create persistent pattern of offending. In addition, juvenile delinquency is often associated with other adverse outcomes, including dropout, unemployment, and health and mental health problems. Therefore, the prevention of juvenile delinquency has become an important topic in youth studies. Recently, policymakers for young people have become interested in using sports to prevent crime [1]. Also, among the solutions offered to combat youth delinquency, sports participation was advocated as a factor for social and personal change. While there is disagreement about the value that sport-based activities provide in relation to social concerns. It is widely accepted that sports participation can be used as part of strategies in social environments to bring about positive change in youth and reduce offensive or antisocial behavior [17]. Sport creates a unique environment for the psychosocial growth of youths, because of its ability to engage and or otherwise motivate youth [18]. Sport has fundamental roles in important sociopolitical contexts such as education, community revival, and community safety (crime prevention) [19]. Therefore, policymakers have paid particular attention to low-cost, sport-based crime prevention programs [2]. Therefore, today, governments and local institutions in around the world offer youth sports activities to prevent juvenile delinquency. Various studies have emphasized the importance of reducing crime through sports participation. Brosnan shows that participation in sport was associated with lower rates of crime (particularly violent crime). S. Davis and Menard [20] showed that sports participation has a direct effect on reducing illegal behaviors and reduces illegal behaviors. Also, Caruso [9] in a study showed that (1) there is a strong negative relationship between sports participation and property crime. (2) There is a strong negative association between sports participation and juvenile delinquency. (3) There is a positive relationship between sports participation and violent crime, but this relationship is very weak. Interestingly, there is a complementary effect between crime and education and sports participation. In addition, Spruit, Hoffenaar [1] emphasize the impact of exercise-based intervention to prevent juvenile delinquency.

According to Social Bonds Theory (SBT) (Hiroshi, 1969), sport-based interventions reduce crime because sport creates bonds with society, and people with stronger bonds are less likely to commit crimes. The four major components of SBT are attachment, commitment, belief, and participation – all of which are evident in sport (1). Also, According to Nichols, sport has the potential to reduce youth crime in three main ways: (1) as a distraction or as a surveillance mechanism, (2) as cognitive behavioral therapy; and (3) as 'hook' or a relationship

strategy [17]. Sports participation alone is not enough to reduce crime and combat youth delinquent behaviors, but it can be effective if used as a preventative activity along with other supportive factors [17]. Therefore, Youth sport participation should be encouraged as a method to reduce illegal behaviors and crime [21]. According to these explanations, sports participation can have a positive effect on crime prevention.

On the other hand, Crime and fear of crime have been identified as potential mediators between neighborhood characteristics and mental health and well-being outcomes, as promising places for interventions to improve well-being, and as important dimensions of wellbeing in their own right [4]. Residents who find their neighborhood unsafe may limit their outdoor physical activity, regardless of whether the crime is a serious threat or not. However, neighborhood safety has been frequently reviewed in the public health literature as a potential limitation to physical activity. Also, people who are afraid of crime limit their social and physical activities to avoid places or situations that they think are unsafe. Residents may view crime as a problem, but if the crime does not make them feel insecure or afraid, it is unlikely to limit activity. Physical activity also needs to be considered because perceived safety may only limit outdoor activities in the neighborhood [22]. Numerous studies have been conducted to reduce the physical activity caused by crime and the fear of it. Most of them have mentioned the fear of crime as a factor in reducing physical activity. In a study by Weir, Etelson [23], it was reported that a high level of anxiety of parents about neighborhood safety leads to low level of sport participation of children in poor societies. Some studies have shown that high crime rates reduce physical activity among many adolescents. For example, Gordon-Larsen, McMurray [24] found a link between high crime rates and declining sports participation among middle and high school students. Molnar, Gortmaker [25] argued that crime may restrict physical activity among young people due to a lack of safety while exercising or playing. Stodolska, Shinew [26] Showed that crime prevents young people from visiting parks, and this fear limits sports participation and outdoor recreation. Perceived security in the environment is a modifiable facilitator for children's and adults' sports participation. Crime and fear of crime have always been identified as a potential negative effect on sports participation and physical activity [27]. To reduce fear of crime, people have two types of behaviors. First, they avoid certain places to minimize their exposure to dangerous conditions. Second, they visit places where security measures are promoted. In summary, in communities with low crime level, sport participation is more likely [28]. Existing studies have shown that the recreational behavior of ethnic and racial minorities is significantly limited by their economic and social environments, which are often associated with poverty and poor social status. In particular, participation in outdoor physical activity may be adversely affected. Many factors limit physical activity and outdoor recreation among young people. These include their socio-cultural environment and the characteristics of their neighborhood [26]. According to environmental stress theory, "Chronic exposure to environmental stressors can lead to feelings of tiredness, reduced sense of control over daily routines. Constant exposure to violence and crime may be one of these stressors and reduce people's motivation to engage in behaviors such as sport participation [26]. Experience" and understanding crime can be very subjective. A person whose parked car is broken overnight probably has a different perception of the prevalence of the crime compared to a neighbor who may never have suffered even a minor act of vandalism [13]. According to these explanations, crime causes insecurity in the neighborhood. This creates fear, and this fear reduces people's social activities such as sports participation.

### **Materials and Methods**

In this study, we use an econometric model with simultaneous equations approach to investigate the interaction effect between crime and sports participation with the emphasis on economic-sports variables. Therefore, the research panel model is estimated by the two-stage least squares method (2SLS) using Eviews software version 10. In the sections that follow, we first describe the variables and data then, we describe and specify the pattern of simultaneous equations, and finally we describe the analysis and complementary tests.

# **Data and Variable Description**

In this study, we use panel data to generate 392 observations from all 28 Iranian provinces for the 14 year period 2004 - 2017. The panel data within this study is characterized by a combination of time-series and cross-sectional dimensions, thus eliminating many of the disadvantages of cross-sectional or time series data. Panel data captures a greater amount of social and economic information, controls for potential heteroscedasticity, and significantly avoid biased estimates caused by ignoring variables. Also, the panel data increases the explanatory power of the samples and increases the reliability of the results [29]. The data was collected from several sources: Iranian Statistics Center (ISC), Iranian Ministry of Economy and Finance (IMEF), Iranian Police Force (IPC), Iranian Ministry of Youth and Sport (IMYS), Iranian National Olympic Committee (INOC).

In this study, the crime variable is estimated using the number of crimes in each province includes poison, stabbing, compulsion, and reluctance, threaten, beaten, accidental death, premeditated and unintentional murder. The Sport Participation (SP) variable is estimated using the number of athletes in different sports that regularly participate in the relevant sport and have a sports insurance card.

Crime and sports participation are the main variables of the research. Considering that simultaneous equations are used in this research, the effects of these two main variables should be examined using control variables. Control variables are essential in estimating simultaneous equations. According to the background of previous research as well as the theoretical foundations, control variables were selected for this research. Therefore, effect of Coaches (CO), Sports Budget (SB) and Sports Facilities (SF) as control variables on sport participation is estimated and effect of GDP Per Capita (GPC), GDP Per Capita× Sports participation (GPCSP) and Drugs (DR) as control variables on Crime is estimated.

Coaches (CO) variable is estimated using number of coaches in different sports who have a coaching certificate in the relevant sport for each province from 2004 to 2017. The coach is a key socializing agent in sport [30]. According to sport psychologists, coaches are one of the most important social incentives to continue sport participation [31].

The Sports Budget (SB) variable is estimated with the government current expenditures for the sports and youth sector in Iran that were calculated in Rials for each province from 2004 to 2017. The effectiveness of government spending at national and regional levels was examined in previous research. Nationally, there is evidence of a significant and positive effect sport-related government expenditure on sport participation [32]. Also, regionally, Humphreys and Ruseski [33] documented that government spending on parks and recreation increases participation in group sports. Recent research investigated the relationship between sport-related government spending and sport participation [34]. Analysis of individual-level and state-level data produced an insignificant effect of government investment in general sports promotion on sport participation. Dallmeyer, Wicker

[34] concluded that a "thorough differentiation between funding size, period, and consistency is necessary whenever evaluating the impact sport-related government spending may effective on sport and exercise behavior of the adult population.

Sports Facilities (SF) variable is an estimate of the number of sports facilities including land, field, hall, pool, track, gymnasium for all provinces of Iran separately from 2004 to 2017. Sports policies emphasize the importance of sports infrastructure aimed at increasing community participation and club membership [35]. For example, In England and China, sport facilities are integral to policies seeking to increase sport participation in clubs [36, 37]. Lower levels of participation coincide with their being less sport facilities in an area [38]. Similarly, [39] argued the same based on the distance to indoor sport facilities and the desirability of the neighborhood. Eime, Harvey [40], Cautioned that the impact of facility availability on participation was varied between sports.

Per Capita GDP is used as another variable. Moreover, it is multiplied with sport participation and it makes GDP Per Capita× Sports participation (GPCSP). There is no consensus in the literature regarding the link between GDP per capita and crime. Some studies have concluded that GDP per capita have a negative effect on crime [41, 42]. Some researchers did not find a significant effect in this regard [43, 44]. Finally, other researchers believe that GDP per capita have a positive effect on crime [45, 46]. When average GDP per capita is high in a certain area, criminals obtain higher advantages. Therefore, criminal cases increase in prosperous areas [47]. This is because when there is personal wealth, there is greater incentive for criminal activity [48]. On the other hand, GDP per capita is considered to obtained welfare and this promotes life standards due to better social control and self-regulation and reduces crime [44]. Some studies concluded that GDP per capita is related positively to sport participation and leisure time physical activity [49, 50]. The percentage of people who never participate in sport is significantly related to wealth status of that country. As a result, with increased GDP per capita those who do not participate in sport will participate [51].

Finally, the Drugs (DR) variable is estimated with the number of drugs and psychotropic substances (i.e., heroin, crack, crystal, opium, morphine, cannabis, grass, glass, cocaine, ampoules, and psychedelics pills) that confiscated by police. This variable is estimated also for all provinces of Iran from 2004 - 2017 in kg. There is evidence of a positive correlation between drug abuse or addiction among family members and a person's tendency to engage in criminal behavior[52, 53]. Drug offenses have always been considered as a serious threat to health and security. In addition, drug criminals do other crimes to obtain money [54]. For example, people who use drugs commit crimes by 2.8 to 3.8 times more than those who do not use drugs [55]. The variables used are described in Table 1 below:

Table 1
Variable, Measurement, and Source

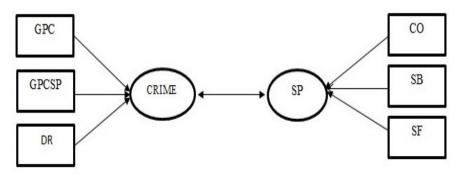
| Variable                    | Measurement   | Cross-section | Time-series | Source          |  |
|-----------------------------|---|---------------|-------------|-----------------|--|
| Crime                       | The number of Crimes in each province               | All provinces | 2004-2017   | IPC             |  |
| Sports<br>Participation SP) | The number of athletes with a sports insurance card | All provinces | 2004-2017   | IMYS, INOC, ISC |  |

|                                   |   |               | (         | Continuation Table 1 |
|-----------------------------------|---|---------------|-----------|----------------------|
| Coaches (CO)                      | Number of coaches with a sports insurance card and coaching certificate         | All provinces | 2004-2017 | IMYS, INOC           |
| Sports<br>Budget (SB)             | government current expenditures for the sports and youth sector                 | All provinces | 2004-2017 | IMYS, ISC            |
| Sport<br>Facilities (SF)          | number of sports facilities including land, field, hall, pool, track, gymnasium | All provinces | 2004-2017 | IMYS, ISC            |
| GDP Per<br>Capita (GPC)           | Gross domestic product per capita   | All provinces | 2004-2017 | ISC, IMEF            |
| GDP Per<br>Capita × SP<br>(GPCSP) | SP×GDP Per Capita   | All provinces | 2004-2017 | -                    |
| Drugs (DR)                        | number of drugs and psychotropic substances discovered by police (kg)           | All provinces | 2004-2017 | IPC                  |

# **Model Specification (Simultaneous Equations Approach)**

This study used a simultaneous equations approach to investigate the simultaneous interaction effects of crime and sports participation. This is because our model violates a key assumption related to the exogeneity of the explanatory variable. In our model, an endogenous variable is a function of another endogenous variable. So instead of one equation, there are several equations. Within the simultaneous equations approach, variables are categorized as either endogenous or exogenous. Exogenous variables are not influenced by variables within the model. In contrast, an endogenous variable is influenced by at least one other variable. In this respect, the endogenous variable is dependent on exogenous variables and some endogenous variables, in turn, impact other endogenous variables. So whilst there is a one-way relationship between some endogenous variables and some exogenous variables, there is a two-way relationship between endogenous variables that makes it problematic to classify them as either an independent or dependent variable [56].

According to Wooldridge [57, 58] simultaneous equation approach with panel data requires an accurate model. In this study, sport participation and crime are the two endogenous variables that are central to our model. These variables interact with each other as well as with the relevant exogenous variables. The conceptual model is portrayed in Figure 1 below:



**Figure 1.** Conceptual model of crime and sport participation.

This model can also be understood as two equations. In Equation 1, Sports Participation is a function of Crime, Coaches (CO), Sports Budget (SB), and Sport Facilities (SF). In Equation 2, Crime is a function of Sport participation (SP), Per Capita GDP (GPC), GDP Per Capita× Sport participation (GPCSP) and Drug (DR):

Equation 1: 
$$SP_{it} = \beta_0 + \beta_1 CRIME_{it} + \beta_2 CO_{it} + \beta_3 SB_{it} + \beta_4 SF_{it} + \epsilon_{it0}$$
  
Equation 2:  $CRIME_{it} = \delta_0 + \delta_1 SP_{it} + \delta_2 GPC_{it} + \delta_3 GPCSP_{it} + \delta_4 DR_{it} + + \epsilon_{it1}$ 

### **Analysis and Complementary Tests**

This section describes the estimation method of crime and sport participation equations. These equations are estimated with the simultaneous equations approach and 2SLS method. Many studies have used the simultaneous equation approach, but none have investigated the links between crime and sport participation. When using the simultaneous equations approach, the ordinary least squares (OLS) method is not suitable. OLS estimators are biased and contradict structural coefficients due to the so-called concurrency bias of equations. The methods of 2SLS and three-stage least squares (3SLS) can overcome these issues. The main difference between 2SLS and 3SLS is that 2SLS is a single-equation method and 3SLS is a system procedure [59]. Given that our hypotheses are estimated using single equations, we used 2SLS but we present the OLS results for comparison purposes. Before simultaneous equations model estimation, complementary tests included unit root test to check data reliability, F-Lamer test to distinguish between pooled or panel model, and Hussman test to determine the utility of a fixed or random-effects model are necessary.

First of all, according to the importance of reliable data, reliability is examined. Levin, Lin [60] showed that in panel data, the use of a single root test to combined data is more valid relative to use it separately for every cross-section. Therefore, we used Levin, Lin, and Chu's method to investigate the reliability of research variables. In estimating panel data, pooled or panel data are investigated. In other words, it should be specified that in the regression relationship, interactions of the cross-section are different, or all interactions are similar. All sections have similar y-intercepts (pooling data) or a different y-intercept should be considered for each section (panel data). For this purpose, the F-Lamer test is used [61]. Now, F-test statistic is estimated according to the following relation and F-value should be computed in Eviews:

$$F_{(nt-n-k)} = \frac{(SSR_R - SSR_{UR})}{\frac{SSR_{UR}}{(nt-n-k)}}$$
(1)

In this formula, n is the number of sections and provinces, t is time period, and k is the number of explanatory variables. If the estimated F-value is larger than the F-value, H0 is rejected and the effects of the group are accepted and different y-intercepts considered in the estimation. As a result, it is possible to use a panel method for estimation. Finally, to distinguish between the uses of a fixed-effects or random-effects model, the Hausman test was also used [57].

### Results

The descriptive statistics of research variables are presented (Table 2).

Table 2

| Variables                 | Mean     | Median   | Standard deviation | Мах.     | Min.     |
|---------------------------|----------|----------|--------------------|----------|----------|
| Crime                     | 5898.13  | 2798     | 10798.02           | 119265   | 14       |
| Sports Participation (SP) | 88513.71 | 57664    | 87341.97           | 566235   | 10453    |
| Coaches (CO)              | 6483.26  | 4669.5   | 7455.48            | 63887    | 303      |
| Sports Budget (SB)        | 43435.34 | 24289    | 73794.86           | 960251   | 140      |
| Sport Facilities (SF)     | 432.67   | 254      | 653.88             | 4477     | 40       |
| GDP Per Capita (GPC)      | 88667.76 | 67198    | 81713.05           | 481100   | 6832     |
| GPC×SP (GPCSP)            | 1.01E+10 | 3.96E+09 | 2.26E+10           | 2.20E+11 | 1.05E+08 |
| Drug (DR)                 | 18576.68 | 3618     | 32106.42           | 185652   | 148      |

To investigate reliability of variables for combined data, Levin, Lin and Chu's test was used. The results showed that probability of all variables is less than .05, therefore  $H_0$  is rejected. The results of the reliability test are presented in Table 3.

Table 3
Results of Levin, Lin and Chu's Test to Investigate Variable Reliability

| Statistic | Prob.**  |
|-----------|--|
| -5.30     | 0.0000   |
| -9.33     | 0.0000   |
| -4.06     | 0.0000   |
| -13.70    | 0.0000   |
| -5.65     | 0.0000   |
| -14.05    | 0.0000   |
| -21.10    | 0.0000   |
| -6.74     | 0.0000   |
|           | -5.30<br>-9.33<br>-4.06<br>-13.70<br>-5.65<br>-14.05<br>-21.10 |

Table 4

# Summary of F-Lamer and Hausman test results

|           | ,          |            |        |        |                              |  |
|-----------|------------|------------|--------|--------|------------------------------|--|
| Test      | Equations  | Statistics | Df     | Prob.  | Result                       |  |
| F-Lamer - | Equation 1 | 22.23      | 27.347 | 0.0000 | Estimation by panel          |  |
|           | Equation 2 | 8.75       | 27.347 | 0.0000 | Estimation by panel          |  |
| Hausman – | Equation 1 | 26.74      | 4      | 0.0000 | Estimates with fixed effects |  |
|           | Equation 2 | 28.45      | 4      | 0.0000 | Estimates with fixed effects |  |

To determine whether we have panel data or pooled data, the F-Lamer test showed that the significance level in both research equations is less than 0.05 Therefore, in this study, panel model is used. In the next step, Hausman test is used to determine fixed or random effects model. In both equations, the significance levels were less than 0.05, Therefore, we elected to use a fixed effects model.

OLS estimators are biased and contradictory from structural coefficients due to the so-called concurrency bias of equations that it is inconsistent or insignificant or estimation difficulty in coefficient estimation. For the purposes of comparison and transparency, the OLS results are presented in Table 5.

Table 5

Model Estimation Using OLS Method

| Dependent variable | Independent<br>variables  | Coefficient | Std. Error | t-Statistic | Prob.  |
|--------------------|---------------------------|-------------|------------|-------------|--------|
| Sports             | CRIME                     | -0.15       | 0.31       | -0.49       | 0.61   |
| participation      | Coaches (CO)              | 3.84        | 0.47       | 8.16        | 0.0000 |
|                    | Sports Budget (SB)        | 0.15        | 0.03       | 4.29        | 0.0000 |
|                    | Sport Facilities (SF)     | 81.78       | 4.89       | 16.69       | 0.0000 |
| Crime              | Sports participation (SP) | 0.007       | 0.01       | 0.62        | 0.53   |
|                    | GDP Per Capita (GPC)      | -0.006      | 0.006      | -1.02       | 0.30   |
|                    | GPC×SP (GPCSP)            | 3.10E-07    | 2.98E-08   | 10.39       | 0.0000 |
|                    | Drug (DR)                 | 0.03        | 0.01       | 2.03        | 0.04   |

The results of the 2SLS estimation are presented in Table 6 below.

Table 6

# **Model Estimation Using 2SLS Method**

| Dependent<br>variable | Independent variables     | Coefficient | Std. Error | t-Statistic | Prob.  |
|-----------------------|---------------------------|-------------|------------|-------------|--------|
| Sports                | CRIME                     | -2.16       | 0.74       | -2.91       | 0.003  |
| participation         | Coaches (CO)              | 4.60        | 0.59       | 7.70        | 0.0000 |
| (SP)                  | Sports Budget (SB)        | 0.11        | 0.04       | 2.84        | 0.004  |
|                       | Sport Facilities (SF)     | 105.29      | 7.99       | 13.17       | 0.0000 |
| Crime                 | Sports participation (SP) | -0.11       | 0.02       | -4.95       | 0.0000 |
|                       | GDP Per Capita (GPC)      | -0.01       | 0.008      | -2.33       | 0.02   |
|                       | GPC×SP (GPCSP)            | 5.13E-07    | 4.54E-08   | 11.30       | 0.0000 |
|                       | Drug (DR)                 | 0.05        | 0.02       | 2.05        | 0.04   |

The results of 2SLS estimation indicate the significant and negative effect of crime on sport participation ( $\beta$ = -2.16, Prob: 0.003) and a significant and negative effect of sport participation on crime ( $\beta$ = -0.11, Prob: 0.0000). Therefore, there is a significant and negative interactional effect between sport participation and crime. The negative effect of crime on sport participation (-2.16) is larger than the negative effect of sport participation on crime (-0.11). This means that with increased crime, sport participation decreases and with increased sport participation, crime decreases. More specifically, for every 1 unit increase in crime, sports participation decreases by -2.16. And for every 1 unit increase in sports participation, crime decreases by -0.11.

In the sport participation equation, Coaches (CO), Sports Budget (SB) and Sport Facilities (SF) all have a significant and positive effect on sport participation ( $\beta$ = 4.60, Prob: 0.0000,  $\beta$ = 0.11, Prob: 0.004,  $\beta$ = 105.29, Prob: 0.0000). This means that with increase in these variables, sport participation increases.

In the crime equation, there is a significant and negative effect of Per Capita GDP on crime ( $\beta$ =-0.01, Prob: 0.02). However, the coefficient for Per Capita GDP×SP (GPCSP) and Drugs are significant and positive crime ( $\beta$ = 5.13E-07, Prob: 0.0000,  $\beta$ = 0.05, Prob: 0.04).

### Discussion

The objective of this study was to investigate the interaction effect of crime and sport participation with an emphasis on sport-economics variables. For this purpose, the simultaneous equations econometric approach with the 2SLS method was used to estimate research equations. The findings show interesting and new results.

Hypohesis 1 was supported. There was a significant, negative interaction effect between sport participation and crime. The negative effect of crime on sport participation (-2.16) is larger than the negative effect of sport participation on crime (-0.11). The finding that increased sport participation decreases crime is consistent with previous studies that determined a negative association between sport participation and property crime and juvenile crime [9] juvenile delinquency [1] and some illegal behaviors [20]. As for the effect of sport on reduced crime and illegal behavior, disagreements exist. Some writers and policymakers suggest that youth sports participation should be considered as illegal behaviors reduction [21]. But other researchers conclude that sport participation increases violent and illegal behaviors [62]. Sport participation reduces many youth anomalies like reduced drug abuse and delinquency [62]. And for this purpose, sport-based crime prevention programs are administered widely by governments and local entities around the world [1]. On the other hand, sport participation provides conditions for illegal behaviors and involvement as a social activity [62].

With increased crime, sport participation decreases. This result is consistent with studies by Rees-Punia, D.Hathaway [63] and Miles and Panton [64] They introduced perception of crime and security as barriers to achieve sufficient levels of physical activities. This belief exists that crime may influence sport participation and this effect is different in various fields [63]. Crime may not influence physical activity behavior, unless threat or fear is perceived [65]. Initial prevention can reduce crime. Innovative approaches like built environment to reduce crime [66] increased Social capital [67] and crime prevention organizations [68] to overcome political challenges to prevent crime are available [69].

The second research finding showed coaches have a significant and positive effect on sport participation. This is consistent with the researches of Barnett, Smoll [70] and Sarrazin, Vallerand [71] They concluded that a positive and skillful coach can increase sport participation.

The third hypothesis was also supported. Government sport budget has a significant and positive effect on sport participation. Swierzy, Wicker [72] Concluded how human, financial, and structural resources of sport clubs influence volunteer participation in sports clubs. Also, Widdop, King [73] concluded that budget limitations at local levels lead to reduced costs for optional services such as sports development and community recreation. Therefore, authorities and policymakers should be considered budgets for sport every year and prevent its reduction.

In the context of Hypothesis 4, the results show that sport facilities have a significant and positive effect on sport participation. This means that development of sport facilities leads to increased sport participation. This finding is consistent with Wicker, Hallmann [74] Who showed that sport facilities like swimming pools and sport grounds are very important

for sport participation? In Germany, evidence shows that people who have sport spaces in their neighborhood are more likely to engage in sport participation [74].

The fifth hypothesis showed that GDP per capita has a negative effect on crime. However, these effects are weak. This means that with increased GDP per capita, crime decreases. This finding is consistent with the study of Khan, Ahmed [75] who found that short-term increases in GDP per capita were associated with decreased crime levels. However, the crime rate in a long-term period increases. Indeed, on the one hand, with increased GDP per capita and economic growth, income increases. Higher-income means that more profits are obtained by criminals. Accordingly, affluent areas, due to the opportunities that offer, attract more criminals. On the other hand, Low GDP per capita leads to poverty and causes crime. Poverty has a positive effect on crime [75].

In the context of Hypothesis 6, we found that sport participation×GDP per capita has a significant and positive effect on crime. However, this effect is weak. Ruseski and Maresova [49] used GDP to investigate the effect of economic conditions on sport participation. Should sport participation capacities are used for economic development and this is followed by crime reduction. Finally, the study showed that the quantity of drugs confiscated by police is associated with an increase in criminal activities. This finding is consistent with studies of Fazel, Wolf [52] and Luthar, Anton [53]. They concluded that there is a positive correlation between drug abuse and a person's tendency to engage in criminal behavior. Compared to other major crimes, the illegal use of drugs increases criminal activities such as violence, fraud, and theft [54].

### **Conclusions**

The objective of this study was to investigate the interaction effect of crime and sport participation as simultaneous equations approach. The findings of this study showed that increased crime leads to decreased sport participation and increased sport participation leads to decreased crime.

As pointed out, views on increased participation to reduce crime are contradictory. Some researchers believe that sport participation, due to its educational, social, and cultural features, reduces crime. Others believe that sport participation is a social activity leading to crime. It should be noted that this does not mean that sport participation is eliminated to reduce crime, but that the solution is both increased participation in the community and reduced crime and employ security and safety measures in sport settings as well use suitable education and social measures to reduce crime rate and increase sport opportunities.

In this context, one solution can be sport-based programs to reduce crime in the society. Therefore, according to the research findings, experienced coaches should be employed in sports clubs. These sport clubs need a suitable budget to increase participation. Moreover, expenditures related to clubs should be lowered for public and athletes and private sectors and budget allocation and take suitable measures to build sports facilities, so that sports clubs and participants can use them easily.

But before these measures and implementing sport-based programs, crime reduction programs should be administered to create a space where these programs are effective. To design crime prevention solutions, measures used by other countries can be modeled such as environmental design, social empowerment, increasing volunteer organizations to prevent crime, and modern approaches and policies. Also, the findings of this study should be used to reduce crime. For this purpose, by designing drug identification system and prevention of

drug use and trafficking, short-term and long-term related-drug crimes can be reduced. Also, increasing GDP per capita in the country should be taken.

In sum, crime and sport participation have an interactional effect and many factors influence them. Therefore, these cases should be taken into consideration carefully to prevent crime and create a suitable context for sport participation.

#### References

- 1. Spruit A., Hoffenaar P., Put Cvd., Vugt Ev., Stams Gj. The effect of a sport-based intervention to prevent juvenile delinguency in at-risk adolescents. Children and Youth Services Review. 2018; 94:689-98.
- 2. Coalter F. Sport-for-change: Some thoughts from a sceptic. Social Inclusion. 2015; 3:19-23.
- 3. Macniven R., Canuto K., Wilson R., Bauman A., Evans J. The impact of physical activity and sport on social outcomes among Aboriginal and Torres Strait Islander people: A systematic scoping review. Journal of Science and Medicine in Sport. 2019; 22(11):1232-42.
- 4. Lorenc T., Clayton S., Neary D., Whitehead M., Petticrew M., Thomson H. et al. Crime, Fear of Crime, Environment, and Mental Health and Wellbeing: Mapping Review of Theories and Causal Pathways. Health & place. 2012; 18:757-65.
- 5. Marquet O., Hipp A., Alberico C., Huang J-H., Fry D., Mazak E. et al. Short-term associations between objective crime, park-use, and park-based physical activity in low-income neighborhoods. Preventive Medicine. 2019; 126.
- 6.Mir Mohamad Tabar A., Bahmani M. Unemployment and crime in developing countries: a meta-analysis in Iran. Crime, Law and Social Change. 2019; 72:327-38.
- 7.Mahmodi Z., Heydari Ma. A case study of criminal policy in prevention of crime. Advances in Environmental Biology. 2014; 8(1):168-74.
- 8.Dousti M., Goodarzi M., Asadi H., Khabiri M. Sport policy in Iran. International Journal of Sport Policy and Politics. 2013; 5:151-8.
- 9. Caruso R. Crime and sport participation: Evidence from Italian regions over the period 1997 2003. The Journal of Socio-Economics. 2011; 40:455-63.
- 10.Davies Le., Taylor P., Ramchandani G., Christy E. Social return on investment (SROI) in sport: a model for measuring the value of participation in England. International Journal of Sport Policy and Politics. 2019;11(4): 585-605.
- 11. Hoye R., Nicholson M., Houlihan B. Sport and policy: issues and analysis. Oxford: Butterworth-Heinemann. 2010.
- 12. Ferraro K., LaGrange R. The Measurement of Fear of Crime\*. 2017. p. 277-308.
- 13. Piscitelli A., Perrella Aml. Fear of crime and participation in associational life. The Social Science Journal. 2017; 54(2):179-90.
- 14. Covington J., Taylor Rb. Fear of Crime in Urban Residential Neighborhoods: Implications of Between- and Within-Neighborhood Sources for Current Models. The Sociological Quarterly. 1991; 32(2):231-49.
- 15. Cuartas J., McCoy Dc., Molano A. The acute effect of community violent crime on maternal engagement in cognitive and socioemotional stimulation. Early Childhood Research Quarterly. 2018; 45:143-54.
- 16. Assink M., van der Put Ce., Hoeve M., de Vries Sl., Stams Gj., Oort Fj. Risk factors for persistent delinquent behavior among juveniles: A meta-analytic review. Clinical psychology review. 2015; 42:47-61.
- 17. Parker A., Morgan H., Farooq S., Moreland B., Pitchford A. Sporting intervention and social change: football, marginalised youth and citizenship development. Sport, Education and Society. 2019; 24(3):298-310.
- 18.Bedard C., Hanna S., Cairney J. A Longitudinal Study of Sport Participation and Perceived Social Competence in Youth. Journal of Adolescent Health. 2020; 66(3):352-9.
- 19. Downward P., Lera-Lopez F., Rasciute S. The Zero-Inflated ordered probit approach to modelling sports participation. Economic Modelling. 2011; 28(6):2469-77.
- 20.S.Davis B., Menard S. Long term impact of youth sports participation on illegal behavior. The Social Science Journal. 2013; 50(1):34-44.
- 21. Mahoney Jl., Cairns Rb. Do extracurricular activities protect against early school dropout? Developmental Psychology. 1997; 33:241-53.
- 22. Foster S., Giles-Corti B., Knuiman M. Does Fear of Crime Discourage Walkers? A Social-Ecological Exploration of Fear As a Deterrent to Walking. Environment and Behavior. 2014; 46:698-717.

- 23. Weir L., Etelson D., Brand D. Parents' perceptions of neighborhood safety and children's physical activity. Preventive medicine. 2006; 43:212-7.
- 24.Gordon-Larsen P., McMurray R., Popkin B. Determinants of Adolescent Physical Activity and Inactivity Patterns. Pediatrics. 2000: 105:E83.
- 25.Molnar Be., Gortmaker Sl., Bull Fc., Buka Sl. Unsafe to play? Neighborhood disorder and lack of safety predict reduced physical activity among urban children and adolescents. American Journal of Health Promotion. 2004(18):378-86.
- 26.Stodolska M., Shinew K., Acevedo J., Roman C. "I Was Born in the Hood": Fear of Crime, Outdoor Recreation and Physical Activity Among Mexican-American Urban Adolescents. Leisure Sciences. 2013; 35.
- 27 Janke K., Propper C., Shields Ma. Assaults, murders and walkers: The impact of violent crime on physical activity. Journal of Health Economics. 2016; 47:34-49.
- 28. Foster S., Giles-Corti B. The built environment, neighborhood crime and constrained physical activity: An exploration of inconsistent findings. Preventive medicine. 2008; 47:241-51.
- 29. Hao Y., Hu X., Chen H. On the relationship between water use and economic growth in China: New evidence from simultaneous equation model analysis. Journal of Cleaner Production. 2019; 235:953-65.
- 30. Sarrazin P., Boiché J., Pelletier L. A self-determination theory approach to dropout in athletes. 2007. p. 229-41.
- 31.Ullrich-French S., Smith Al. Social and motivational predictors of continued youth sport participation. Psychology of Sport and Exercise. 2009; 10:87-95.
- 32. Downward P., Lera-López F., Rasciute S. The correlates of sports participation in Europe. European Journal of Sport Science. 2014; 14(6):592-602.
- 33. Humphreys Br., Ruseski Je. Participatio in physical activity and government spending on park and recreation Contemporary Economic Policy. 2007; 25(4):538-52.
- 34.Dallmeyer S., Wicker P., Breuer C. The relationship between sport-related government spending and sport and exercise participation: the role of funding size, period, and consistency. International Journal of Health Promotion and Education. 2018; 56:237-47.
- 35. Wicker P., Breuer C. Exploring the organizational capacity and organizational problems of disability sport clubs in Germany using matched pairs analysis. Sport Management Review. 2013; 17(1):23-34.
- 36.Downward P., Rasciute S. The relative demands for sports and leisure in England. European Sport Management Quarterly. 2010;10(2):189-214.
- 37.Xiong H. The Evolution of Urban Society and Social Changes in Sports Participation At the Grassroots in China. International Review for The Sociology of Sport 2007; 42.
- 38.Wicker P, Breuer C, Pawlowski T. Promoting sport for all age-specific target groups: The impact of sport infrastructure. European Sport Management Quarterly. 2009; 9(2):103-18.
- 39. Deelen I., Ettema D., Dijst M. Too busy or too far away? The importance of subjective constraints and spatial factors for sports frequency. Managing Sport and Leisure. 2016; 21(4):239-64.
- 40.Eime Rm., Harvey T., Charity M., Casey M., Uffelen Jv., Payne W. The contribution of sport participation to overall health enhancing physical activity levels in Australia: A population-based study. BMC public health. 2015; 15(1):806.
- 41.Bjerregaard B., Cochran J. A Cross-National Test of Institutional Anomie Theory: Do the Strength of Other Social Institutions Mediate or Moderate the Effects of the Economy on the Rate of Crime?1. Western Criminology Review. 2014; 9:31-48.
- 42.Chon D. The Impact of Population Heterogeneity and Income Inequality on Homicide Rates: A Cross-National Assessment. International journal of offender therapy and comparative criminology. 2011;56:730-48.
- 43.Burhan Nas., Kurniawan Y., Sidek Ah., Mohamad Mr. Crimes and the bell curve: The role of people with high, average, and low intelligence. Intelligence. 2014; 47:12-22.
- 44. Fowles R., Merva M. Wage inequality and criminal activity: Anextreme bounds analysis for the United States, 1975–1990. Criminology. 1996; 34(2):163-82.
- 45. Hassan M., Akbar M., Wajid A., Arshed N. Poverty, Urbanization and Crime: Are They Related in Pakistan. International Journal of Economics and Empirical Research. 2016; 4:483-92.
- 46.Fajnzylber P., Lederman D., Loayza N. What causes violent crime? European Economic Review. 2002; 46(7):1323-57.
- 47. Buonanno P., Fergusson L., Vargas Jf. The Crime Kuznets Curve. Journal of Quantitative Criminology 2017; 33:753-82.
- 48. Fajnzylber P., Lederman D., NormanLoayza. Determinants of crime rates in Latin America and the world: an empirical assessment. World Bank Publications 1998.

- 49. Ruseski Je., Maresova K. Economic freedom, sport policy, and individual participation in physical activity: An international comparison. Contemporary Economic Policy. 2014;32:42-55.
- 50. Tuyckom C. Macro-environmental factors associated with leisure-time physical activity: A cross-national analysis of EU countries. Scandinavian journal of public health. 2011;39:419-26.
- 51. Van Bottenburg M., Rijnen B., Sterkenburg JCv. Sports participation in the European Union: Trends and differences: Nieuwegein: Arko Sports Media, Utrecht University Repository; 2005.
- 52. Fazel S., Wolf A., Palm C., Lichtenstein P. Violent crime, suicide, and premature mortality in patients with schizophrenia and related disorders: A 38-year total population study in Sweden. Lancet Psychiatry. 2014; 1(1):44-54.
- 53.Luthar Ss., Anton Sf., Merikangas Kr., Rounsaville Bj. Vulnerability to substance abuse and psychopathology among siblings of opioid abusers. Nervous and Mental Disease. 1992; 180:153-61.
- 54.Tsai F-C., Hsu M-C., Chen C-T., Kao D-Y. Exploring drug-related crimes with social network analysis. Procedia Computer Science. 2019; 159:1907-17.
- 55.Bennett T., Holloway K., Farrington D. The statistical association between drug misuse and crime: A meta-analysis. Aggression and Violent Behavior. 2008; 13:107-18.
- 56. Gujarati Dn. Basic Econometrics. 4nd ed. New York , The McGraw. 2004.
- 57. Wooldridge Jm. Econometric Analysis of Cross Section and Panel Data: MIT Press, Cambridge; 2002.
- 58. Wooldridge Jm. Econometric Analysis of Cross Section and Panel Data (1 Ed. Vol. 1). Michigan State University; 2001.
- 59. Kao T-W., Lin W. The relationship between perceived e-service quality and brand equity: A simultaneous equations system approach. Computers in Human Behavior. 2016; 57:208-18.
- 60. Levin A., Lin Cf., Chu J. Unit Root Tests in Panel Data: Asymptotic and Finite Sample Properties. Journal of Econometrics. 2002; 108(1):1-24.
- 61. Baltaji B. Econometrics. Springer Texts in Business and Economics, Springer-Verlag Berlin Heidelberg. 2011.
- 62. Burton Jm., Marshall La. Protective factors for youth considered at risk of criminal behaviour: Does participation in extracurricular activities help? Criminal Behavior and Mental Health. 2005; 15:46-64.
- 63. Rees-Punia E., D.Hathaway E., L.Gay J. Crime, perceived safety, and physical activity: A meta-analysis. Preventive Medicine. 2018; 111:307-13.
- 64. Miles R., Panton L. The influence of the perceived quality of community environments on low-income women's efforts to walk more. Journal of community health. 2006; 31:379-92.
- 65. McGinn A., Evenson K., Herring A., Huston S., Rodriguez D. The Association of Perceived and Objectively Measured Crime With Physical Activity: A Cross-Sectional Analysis. Journal of physical activity & health. 2008; 5:117-31.
- 66. Piroozfar P., Farr E., Aboagye-Nimo E., Osei-Berchie J. Crime prevention in urban spaces through environmental design: A critical UK perspective. Cities. 2019;95.
- 67. Matsukawa A., Tatsuki S. Crime prevention through community empowerment: An empirical study of social capital in Kyoto, Japan. International Journal of Law, Crime and Justice. 2018; 54:89-101.
- 68. Hino K. Plus Bouhan: A new community-based approach to crime prevention in Japan. International Journal of Law, Crime and Justice. 2018; 54:79-88
- 69. Welsh B., Farrington D. Science, politics, and crime prevention: Toward a new crime policy. Journal of Criminal Justice. 2012; 40(2):128-33.
- 70. Barnett Np., Smoll Fl., Smith Re. Effects of enhancing coach—athlete relationships in youth sport attrition. The Sport Psychologist. 1992; 6:111-27.
- 71. Sarrazin P., Vallerand R., Emma Gd., Pelletier L., Cury F. Motivation and Dropout in Female Handballers: A 21-month Prospective Study. European Journal of Social Psychology. 2002; 32:395-418.
- 72. Swierzy P., Wicker P., Breuer C. The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis. Sport Management Review. 2018; 21(3):307-20.
- 73. Widdop P., King N., Parnell D., Cutts D., Millward P. Austerity, policy and sport participation in England. International Journal of Sport Policy and Politics. 2017; 10:1-18.
- 74. Wicker P., Hallmann K., Breuer C. Analyzing the impact of sport infrastructure on sport participation using geo-coded data: Evidence from multi-level models. Sport Management Review. 2013; 16(1):54-67.
- 75. Khan N., Ahmed J., Nawaz M., Zamand K. The Socio-Economic Determinants of Crime in Pakistan: New Evidence on an Old Debate. Arab Economic and Business Journal. 2015; 10(2):73-81.

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# INSTANT REBATE COUPON AND ITS INFLUENCE IN ONLINE CONSUMER PURCHASE INTENT AMONG UNIVERSITY STUDENTS IN NIGERIA

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**Abstract.** This study seeks to examine instant rebate coupon influence in online purchase intent with special reference to university students in Nigeria. Instant rebate coupon as a concept in online sales promotion signifies an important improvement in the use of electronic coupon to prevail in the online market place competition, most especially among electronic retailers. This study therefore focuses on four elements of measuring instant rebate coupon being an online sales promotion tool namely: discount depth, attractiveness, perceived risk and hedonic perception on online purchase intention. The use of descriptive research design was employed through a cross - sectional online survey as data collection methods. Two hundred and seventy six (276) respondents were considered for this study. The four research questions asked were answered via the corresponding hypotheses. Data collected for this study were analyzed through the use of descriptive and inferential statistics. Findings revealed that a significant relationship exist between online purchase intention and the elements of instant rebate coupon, in addition the study shows that online shoppers are willing to embrace instant rebate coupon while shopping in online environment. Also, based on this study. It is recommended that electronic retailers should increase the use of instant rebate coupon in their online stores and further studies can be conducted in extending the population of study to different population categories such as housewives, working class, among many others.

**Keywords:** discount depth; attractiveness; perceived risk; hedonic perception, electronic retailer, online shopping.

**Rezumat.** Acest studiu urmărește influența instantanee a cuponului de reducere în intenția de cumpărare online, cu referire specială la studenții universitari din Nigeria. Cuponul de reducere instantanee ca concept în promovarea vânzărilor online semnifică o îmbunătățire importantă în utilizarea cuponului electronic pentru a predomina în competiția de pe piața online, mai ales în rândul comercianților cu amănuntul electronic. Prin urmare, acest studiu se concentrează pe patru elemente de măsurare a cuponului de reducere instant fiind un instrument de promovare a vânzărilor online și anume: profunzimea reducerii, atractivitatea,

riscul perceput si perceptia hedonică asupra intentiei de cumpărare online. Utilizarea designului de cercetare descriptivă a fost utilizată printr-un sondaj online transversal ca metode de colectare a datelor. Pentru acest studiu au fost luati în considerare două sute saptezeci si sase (276) de respondenti. La cele patru întrebări de cercetare adresate s-a răspuns prin ipotezele corespunzătoare. Datele colectate pentru acest studiu au fost analizate prin utilizarea statisticilor descriptive și inferențiale. Rezultatele au arătat că există o relație semnificativă între intentia de cumpărare online si elementele cuponului de reducere instantanee, în plus, studiul arată că cumpărătorii online sunt dispuși să accepte cuponul de reducere instantanee în timp ce cumpără în mediul online. De asemenea, pe baza acestui studiu, se recomandă ca comercianții cu amănuntul electronic să crească utilizarea cuponului de rabat instant în magazinele lor online și pot fi efectuate studii suplimentare în extinderea studiului la diferite categorii de populație, cum ar fi gospodinele, clasa muncitoare, printre multe altii.

Cuvinte cheie: adâncimea reducerii; atractivitatea; risc perceput; perceptie hedonică, retailer electronic, cumpărături online.

### Introduction

Due to the advent of internet, online buying has seen unprecedented growth [1, 2]. Sequel to this tremendous growth, several businesses embraced the opportunities embedded in emergent electronic market globalization by converting their traditional stores to webbased business [3]. Having discovered the advantages web-based business has over traditional stores such as breaking of geographical limitations, efficiency in serving existing customers, attracting new customers, generation of higher sales and increase in profitability level thereby leading to fierce and high intensity of competition among the electronic retailers [4]. However, for the existing and potential electronic retailers to survive this competition, it is imperative to know how sales promotion tool such as instant rebate coupon can be used in targeting consumers and influence their purchase intent in the online environment.

The work [5] described instant rebate coupon as a new type of coupon that is different from paper coupon which can only be offered to online shoppers, for instance by inducing shoppers to make quick and immediate buying decision in online environment. According to [6], the usage of online coupons enables firms to attract new and more customers, majority of these customers changed to long - term customers as well as the firm's goods advocates. In addition, previous studies found that using online coupon leads to increase in the firm's revenue generation and profit making, as coupon customers purchase more in total than customers paying the full price [7]. From customer perspective, due to internet, customers enjoy easy access to several coupons as regards various services and goods, and this lead to tremendous change in customers' couponing behaviour by converting them from passive coupon viewers to active online coupon seekers and communicators to others [8].

Previous studies conducted by [9] and [10] revealed that instant rebate coupon is an improved version of electronic coupon with additional features such as wide coverage within shortest possible time, unlike electronic coupon which involves searching through special websites for coupon code for accessing and redeeming them. Instant rebate coupon supports wide distribution and instant redemption at the point of purchase, it also facilitates quick and immediate purchase decision since it is offer within short period of time [5]. In addition, online coupon not only increase shopping carts of customers by 14% but also increase brand

sales by 35% [11]. These notwithstanding, this study seeks to examine influence of instant rebate coupon in online purchase intention among university students in Lagos, Nigeria. Since [12] declared that the growth rate of Nigerian internet usage between 2000 and 2016 has increased by over 90%, and [13] also affirmed that Nigeria (89%) is regarded as the leader in e-commerce among African countries, followed by South African (70%) and Kenya (60%) respectively. Thus, Nigeria is considered deem fit for this study which is limited to universities students in Lagos State, Nigeria.

### **Problem Statement**

Coupon as a promotional tool have been used and researched for several years [14], but today, internet advances as a result of innovative and enhanced ways have dramatically transformed the medium of coupons distribution and usage by the customers and the firms [15]. Also, despite online coupon popularity for both online firms and consumers in the developed countries, the influence of instant rebate coupon on online purchase intent has received less attention in the developing countries, such as Nigeria. Therefore this current study seeks to fill these gaps by examining how instant rebate coupon can influence online customer purchase intention among university students in Nigeria.

# Objectives of the Study

This study's broad objective is to examine the influence of instant rebate coupon on online customer purchase intent among university students in Nigeria. And specific objectives are to:

- i. determine the influence of instant rebate coupon discount depth on online customer purchase intention.
- ii. examine the influence of instant rebate coupon perceived risk on online customer purchase intention.
- iii. ascertain the influence of instant rebate coupon attractiveness on online customer purchase intention.
- iv. identify the influence of instant rebate coupon hedonic perception on online customer purchase intention.

# **Research Questions**

The following research questions are raised to achieve the aforementioned objectives:

- i. What is the influence of instant rebate coupon discount depth on online customer purchase intention among university students in Nigeria?
- ii. What is the influence of instant rebate coupon attractiveness on online customer purchase intention among university students in Nigeria?
- iii. What is the influence of instant rebate coupon perceived risk on online customer purchase intention among university students in Nigeria?
- iv. What is the influence of instant rebate coupon hedonic perception on online customer purchase intention among university students in Nigeria?

### **Research Hypotheses**

This study tested the following null hypotheses.

H<sub>o</sub>1: There is no significant relationship between instant rebate coupon discount depth and online customer purchase intention among university students in Nigeria.

- H<sub>o</sub>2: There is no significant relationship between instant rebate coupon attractiveness and online customer purchase intention among university students in Nigeria.
- H<sub>o</sub>3: There is no significant relationship between instant rebate coupon perceived risk and online customer purchase intention among university students in Nigeria.
- Ho4: There is no significant relationship between instant rebate coupon hedonic perception and online customer purchase intention among university students in Nigeria.

# Justification of the Study

This study is an important step in marketing discipline as regards the influence of instant rebate coupon on online consumer purchase intention in Nigeria. It proposes to achieve a better understanding of the instant rebate coupon and its influence on online consumer purchase intention among university students in Nigeria. This is essential because online shoppers are exposed to many alternatives while shopping online as they are undergoing different decisions; and for electronic retailers to be able to get them attracted as well as keep their existing customers, marketing strategy like instant rebate coupon must be employed. Findings from this study will add to the existing knowledge in marketing in the area of online sales promotion. Also, it will assist electronic retailers to have adequate understanding on how instant rebate coupon can be applied in the online context. In addition, it will assist students and other marketing practitioners that want to carry out study in the area of online instant rebate coupon by providing an avenue for further research through suggestions and/or criticisms by students, researcher, marketing practitioners and other stakeholders in academic as well as contribute to the literature on instant rebate coupon in online shopping context.

# **Scope of Study**

This study is restricted to university students from a large Nigerian University in Yaba Local Government, University of Lagos, Lagos state. This university was selected because it is situated in a commercial area, whereby companies with online retailing activities have their headquarters. Also this study focused on students since they are familiar with online shopping and they are popularly known as subject in online behaviour research [16].

# **Limitation of Study**

This study is limited with regards to the population of the study which targeted only university students. In addition, the context of this study was restricted to a particular university situated in a specific geographical location in Yaba local government, Lagos state, Nigeria. Therefore, all findings cannot be generalized to other population as well as universities in other areas.

### **Literature Review**

# **Theoretical Framework**

According to [10] online coupon represents a sales promotion tool that has related goals as price promotion. Therefore, in this study the mental accounting theory was explained along with principle of congruency as underpinning theories. These however are explained below:

# **Mental Accounting Theory**

Mental Accounting Theory is propounded by [17]. This theory claims that a transaction utility is consider negative when retail price is more than expected price, as this will decrease

the probability of purchasing the brand, while transaction utility is considered positive when retail price is less than expected price, as this will increase the probability of purchasing the brand [17]. Also, this theory states that people exhibit different mental reactions towards high and low promotion of priced brands, and view a price promotion as a gain increase or a loss reduction based on whether the brand is considered as a low or high priced brand [18]. And if higher quality brands is attached with price reductions it attract more consumers than when lower quality brands is attached to price reductions [19]. Hence, it is possible that instant rebate coupon deep discount attached to higher quality brands will lead to attractiveness of more consumers than instant rebate coupon with deep discount and attached to low brand quality brand. In addition, [18] claims that brands of high price enjoy occasional large price cut while brands of low price enjoy regular small price cuts. Therefore, it is likely that instant rebate coupon with large discount depth attached to high-priced brands will benefit more when used occasionally, whereas instant rebate coupon with small discount depth attached to low-priced will benefit more when used regularly [18]. Based on this note, it is proposed that instant rebate coupon discount depth should influence the online consumer purchase intent.

# **Principle of Congruence**

The principle of congruence according to [20] states that if the promotion and promoted products offer compatible or congruent benefits when compared with each other, it would have more effect on the demands of the promoted product, than when the promotion of a product offers benefit that is not compatible or incongruent with the promoted product. Therefore, it is expected that hedonic products will be more affected by monetary promotion (instant rebate coupon) and conversely utilitarian products are more congruent with non-monetary ones, as hedonic shoppers are more price sensitive [21]. Since the instant rebate coupon as a monetary promotion is congruent with the promoted product used in this study which is laptop, therefore it is likely that the instant rebate coupon as a promotion tool will have effect on the demands of the laptop in online environment among the university students.

# **Conceptual Framework**

According to [22], conceptual framework can be define as the way of organizing ideas to achieve the purpose of a research project. Therefore, this section comprises of organized ideas that are grounded on wide arrays of literature in order to determine the influence of instant rebate coupon on online customer purchase intention.

# **Instant Rebate Coupon**

[5] described instant rebate coupon as a new type of coupon that is different from paper coupon which can only be offered to online shoppers, for instance to entice shoppers that are indecisive when making buying decision in online environment. [10] affirmed that internet usage has increased coupons effectiveness among consumers. According to [23], instant rebate coupon is similar to surprise coupon and it is defined as unexpected coupon encountered while on the store and meant to be used on that shopping trip. Instant rebate coupon is issued to a shopper who is indecisive as regard a purchase [10]. The electronic retailers used this coupon to induce the shopper to buy on-spot [5], for instance, a product can be discounted for a short period of time if the buyer stays longer on the website page or returns to it frequently; and the instant rebate coupon is shown indiscriminately to all

shoppers rather than the shoppers who have shown indecisiveness only. [24] emphasized that sales promotion tool, like coupons play a prominent and important role in purchase intention of consumer and in their process of making decision in purchasing a specific product. Also coupons are one of the most important sales promotion tools used to intensify sales of products [25].

# **Discount Depth**

Discount depth has been shown to be an important construct in determining the coupon proneness and consumer purchase behavior. According to [26] discount depth decreases reference prices and price expectation [27] which add directly to the appeal of the offer, and this effect is even higher for new customers because their higher risk level is likely to reduce drastically when receiving a deeper discount for product trial [28]. This in turn will make them to be more willing in obtaining the online coupons and involve in trying the product [28]. Hence instant rebate coupon could possibly attract new customers in online shopping environment. As [29] found that users of coupon are more price sensitive; and previous studies as regards the impact of coupon promotion characteristics on rate of coupon redemptions have shown that coupons with higher face value can result to higher rate of redemption [30 - 32]. Although, the above study was conducted in offline context, but that notwithstanding, the study conducted by [33] in online context also corroborates this findings. Therefore, there is need to determine the impact of instant rebate coupon discount depth on online consumer purchase intention.

### **Attractiveness**

Attractiveness has been regarded as a guiding factor in determining the success or failure of a particular promotion [34, 35] argued that consumer usage behaviour of a person will not only depend on his or her desire to use coupon but on the coupon's attractiveness encountered. Hence it is imperative to determine the impact of instant rebate coupon attractiveness on online consumer purchase intention.

### **Perceived Risk**

Perceived risk according to [36] is defined as negative perceptions of changeable and unpredictable outcome from purchase of products. Also, perceived risk concept is considered as the perception of consumer on contrary and changeable results of purchasing a product [37, 38] claimed that perceived risk negatively influences online coupon redemption Perceived risk is also an important construct in explaining consumer behavior [39]. Also, [40] revealed that the view of risk feeling affects consumer tendency in making buying decision. Likewise, [41] highlighted that it is an effective alternative for consumers to lessen their insight of risk through monetary incentives.

# **Hedonic Perception**

Hedonic perception is referred as the perceived value derived from the multi-sensory emotive and fantastic parts of shopping experience [42]. Previous study have shown that hedonic perception influence consumer purchase intent [43]. Although, [44, 45] have revealed that customers use social shopping in online environment because they wanted both hedonic (fun, exploration of new ideas) and utilitarian (facilitation of decision making, search efficiency) benefits; and these benefits are also similar to purchase of coupons [20]. Since price is the top attraction for online shoppers [46] consumers who pay attention to utilitarian

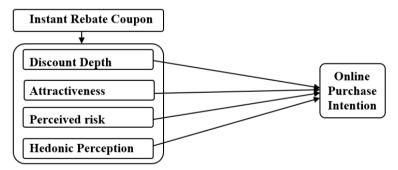
factors such as time savings and convenience tend to pay less attention to low prices in electronic shopping [47], thus sensitivity to price information are more exhibited by hedonic shoppers [21, 48] found that there are other gains related to sales promotion apart from financial gains. These include: excitement [42]; personal gratification [49]; and making impulse purchases [50]. Therefore, it is likely that shoppers who are price sensitive, emotional driven and personal gratification seekers will favour instant rebate coupon in their online purchase intention.

### Online Purchase Intention

[51] defined online purchase intention as the readiness of customer to purchase via the internet. It can also be refer to as willingness of consumers to buy a product through the internet [52]. In addition, online purchase intention is consumer's inclination to engage in the usage of internet services in making real purchase of products or engaging in price comparison of the product [53]. Online purchase intention became a popular activity due to emergence of e-commerce [54], and it emanated from purchase intention [55]. [52] established that in the online shopping context, online customer purchase intention define the potency of a consumer's intention to perform a specified buying behavior through the internet. In addition, purchase intention has been used extensively in literature as a construct of subsequent purchasing [56]; therefore this study seeks to know how instant rebate coupon can be used to predict the intention of online consumers like university students in Nigeria.

### Conceptual Model

The model below shows a graphical representation of a real situation which seeks to propose the relationship that exists between instant rebate coupon and online consumer purchase intent.



Source: Conceptualized by Researcher, 2021.

The model above shows that a relationship exists between the instant rebate coupon components such as discount depth, attractiveness, perceived risk, hedonic perception and their influences on online purchase intention among university students in Nigeria. Discount depth, attractiveness, perceived risk, hedonic perception were considered as independent variables while the online purchase intention as dependent variable.

# **Empirical Review**

[33] conducted a study on electronic coupon among online shoppers that have redeemed coupon from a large supermarket in Taiwan within 2003 and 2006. 24,104 customers were drawn as sample from a sampling frame consists of 160,000 customers of this large supermarket in Taiwan through the use of random sampling technique. Individual customers were not involved in person, rather their recorded card members were used for the

study. Descriptive analysis was adopted, also Generalized Method of Moment (GMM) was used as inferential statistical testing tool for the study's hypotheses. The result of the study shows that deep discount depth of coupon is found to be an important factor in online context, and influence online purchase intention. [57] examined effects of framing price of coupon promotion messages and consumers' perception. A sample size of 119 of undergraduate students in a Midwestern university was selected using convenience sampling technique. Data was collected through the use of questionnaire. The data was analyzed using descriptive statistics to analyze the respondents' characteristic, and ANOVA was adopted as an inferential statistical tool in analyzing the hypotheses. The study concluded that coupon promotions were positively more valued and more effective in influencing consumer's purchase intention.

[58] conducted a study to examine how discount sales promotion influence consumer purchase intention moderated by attractiveness. 662 university students was sampled using the convenience sampling technique. Online questionnaire was adopted as data collection instrument. Data analysis was conducted on respondents' characteristic using descriptive statistics, while t –test and structural modelling equation were adopted to test the study's hypotheses. The findings of the study shows that attractiveness has a direct positive effect on purchase intention. [59] conducted a study on the effect of price discount using coupon and bonus packs on online impulse purchase. The study respondents comprised of 280 undergraduate university students, and were selected using convenience sampling technique. Data was collected via online questionnaire and a three – way ANOVA was employed as inferential statistical testing tool for the study's hypotheses. The findings show that price discount – coupon impact online impulse purchase for hedonic products.

[60] examined the impact of perceived risk of consumer on consumer's online purchase intention. The study adopted questionnaire as data collection instrument. 350 internet users were selected as sample size through convenience sampling technique, out of which 316 survey responses (90%) were found usable for the study. Descriptive statistics was employed to analyze the respondents' characteristics while correlation and regression analysis were employed in testing the hypotheses. The findings revealed that five factors of perceived risk such as financial risk, security risk, product risk, time risk and psychological risk have significant influence on online purchase intention of consumer. [61] conducted a study on the effects of hedonic price and perceived risk on the purchase intention of group buying website. 164 online group buying buyers were selected as sample using purposive sampling. Data was collected via online questionnaire. Descriptive statistics was used to analyze the respondents' characteristics, while structural equation modelling was adopted to test the study's hypotheses. The findings show that purchase intention is affected by perceived risk and improved by hedonic values.

# Methodology

# Research Design

This study adopted cross – sectional survey research design using quantitative research approach. A structured online questionnaire was employed as an instrument for data collection in obtaining relevant information based on the study's constructs.

# **Population of Study**

The study population consists of students from University of Lagos in Yaba Local Government area, Lagos State. This study focused on students since they are conversant with online shopping and they are known as popular subjects in online behavior researches [16].

Therefore, 55,000 students were targeted as total population, as this figure represent the total population of students enrolled in the University of Lagos [62].

# Sample Size and Selection

[63] formular was adopted to determine the sample size for the study. This formular was used to generate a sample size of 276. The formular for calculating the sample size is elucidated below:

$$n = \frac{N}{1 + N \cdot (e)^2}$$
$$n = \frac{55.000}{1 + 55.000(0.06)^2} = 276$$

Where: n represents sample size, N represents total Population e represents sampling error, which is 0.06

# Sampling Technique

The study employed non – probability sample technique which allows researcher to select units from a population that of interest to a specific study. Hence, convenience sampling technique was adopted due to the respondents' accessibility to the researcher.

# **Study Instrument**

The study used multiple-choice questionnaire in online context to collect data from the respondents. Constructs of the survey instrument were operationalized from the scales of purchase intent [64], discount depth [26], hedonic or utilitarian perception [65] and perceived risk [66]. In addition, adjustments were made to the content and sequence of the scale items according to the analysis of this study that were pre-tested during pilot study. This study's items were scored using a five – point Likert scale ranging from strongly agree = 5, agree = 4, undecided =3, disagree = 2, and strongly disagree = 1, while for hedonic perception, the seven- point semantic differentials scale were used to measure the portion of a respondent's attitude based on perceptions of the product's or brand's functional performance.

# Administration of the study Instrument

In order to ensure that online questionnaire targets the intended university of Lagos students, a survey link was generated and sent to them through various medium such as social media platform (Whatsapp, Facebook, Telegram), class representatives and personal follow up was also carried out to ensure that the rate of unwanted respondents is reduced to the barest minimum. Respondents were asked to fill online questionnaire. They were asked to envisage that they were browsing in an online retailer's website that deals with electronics, being students, there had needs to buy laptops that would aid their academic works but while pondering and loitering on the website, an advertisement pop up revealing instant rebate coupon of 37% discount off the price. After reading the scenario, the respondents were asked to rate their opinions using item – scales that were based on this study's constructs.

### The Selection of Promotional Product

The product chosen for the research under discussion was the purchase of a laptop, since a product that carries high perceived risk would seek to impede a purchase [67], thus this product was chosen based on the students' behavior observation. Also the participants

are more conversant with the product, and it has been used by past researchers in determining the consumer purchase intention in offline environment [58, 66].

### Pilot Study

The research instrument for the survey was subjected to a pilot study for the purpose of validating and reliability. The content validation was carried out by graduate students, doctoral students and university lecturers in marketing department. Input from the suggestions and corrections were considered to improve the final questionnaire. Also reliability test was performed through SPSS to determine the Cronbach's alpha test for the constructs considered in this study.

**Reliability Tests of the Constructs** 

Table 1

|       |                    | ,  |       |                |
|-------|--------------------|----|-------|----------------|
| S/No. | Variables          | N  | Items | Cronbach Alpha |
| 1.    | Discount depth     | 27 | 4     | .715           |
| 2.    | Attractiveness     | 27 | 5     | .862           |
| 3.    | Perceived risk     | 27 | 5     | .830           |
| 4.    | Hedonic Perception | 27 | 8     | .911           |
| 5.    | Purchase Intent    | 27 | 5     | .863           |

Source: Pilot Study, 2021.

Since all the Crobanch's value in this study are more than 0.60 this confirm the study to have higher and desirable internal reliability index. The constructs in the Table 1 depicts five (5) constructs of the study, and twenty seven (27) questions were raised across the five constructs; since [68] reports that in the development of multiple items measure, all items representing the construct of interest should be sampled. Hence, the above analysis shows the Cronbach's alpha value for the constructs as follows: discount depth at .715, attractiveness at .862, perceived risk at .830, hedonic perception at .911 and purchase intent at .863. These suggest that the instrument for this study is reliable, and the research's internal consistency is acceptable.

# **Procedures for Data Analysis**

Based on the aforementioned research questions and formulated hypotheses, the primary data collected during online survey were analyzed [69]. This study adopted descriptive statistics and inferential statistics to analyze data collected. Descriptive statistics was used to analyse respondents' demographic data, while regression analysis as inferential statistical tool was adopted to test the hypotheses. During data cleaning, 289 responses were discovered out of which 24 responses have incomplete data set and were excluded. The remaining 265 responses with complete data set were found usable for this study.

### **Results and Discussion**

This section discusses the analysis of descriptive statistics for respondents' biodata and regression analysis to test hypotheses formulated for this study.

# Descriptive Statistical Analysis of Respondent's Data

The total number of valid questionnaires of two hundred and sixty five (265) were considered, descriptive statistical analysis was used to analyze the biodata of the sample surveyed. This procedure was necessitated in order to have proper understanding of the respondent's

characteristics. Table 2 below shows the analysis of the respondents' characteristics for this study using percentage frequency distribution.

**Data of Respondent's Characteristics** 

Table 2

| Variables      | Categories        | Frequency | Percent (%) |
|----------------|-------------------|-----------|-------------|
|                | Male              | 169       | 63.8        |
| Gender         | Female            | 96        | 36.2        |
|                | Total             | 265       | 100.0       |
|                | 20 years or Less  | 169       | 63.8        |
|                | 21 to 30 years    | 79        | 29.8        |
| Age            | 31 to 40 years    | 9         | 3.4         |
|                | 41 to 50 years    | 8         | 3.0         |
|                | Total             | 265       | 100.0       |
|                | Married           | 18        | 6.8         |
| Marital Status | Single            | 247       | 93.2        |
|                | Total             | 265       | 100.0       |
|                | Less than N20,000 | 164       | 61.9        |
|                | N20,000 - N49,999 | 66        | 24.9        |
| Income         | N50,000 - N79,999 | 20        | 7.5         |
|                | N80,000 and more  | 15        | 5.7         |
|                | Total             | 265       | 100.0       |

Source: Field Survey, 2021.

Table 2 above represents information of the respondents, gender distribution shows that males (63.8%) responded more than female (36.2%). As regards age, responses were found to be higher among people within the age below 20 years (63.8%) followed by 21 to 30 years (29.8%). For marital status, majority of the respondents were single (93.2%). As regards income distribution, 61.9% of the respondents earned N20,000 or less monthly, 24.9% earned within the range of N20,000 and N49,999, (7.5%) earned above N50,000 but less than N80,000 monthly, while (5.7%) earned N80,000 and above monthly. Therefore, they are adequate to provide reliable information as regards this study.

# Test and Discussion of Hypothesis (Inferential Statistical Analysis)

The discussion of data gathered from the valid online questionnaire designed for this study were presented in tabular forms for easy analyses and interpretation. In addition, the analyses were based on instant rebate coupon and online consumer purchase intent using regression analysis.

Regression Equation

 $Y = a + \beta x$ 

 $Y = a + \beta x n (x_1, x_2, x_3, x_4),$ 

### where:

Y represents dependent variable which is purchase intent,

a represents regression coefficient,

β represents beta coefficient (it explains the independent variable actual effect)

Xn represents the changing variable as  $(x_1, x_2, x_3, x_4)$ .

### Where

 $x_1$  = Discount depth (DD);  $x_2$  = Attractiveness (ATT),  $x_3$  = Perceived risk (RK),  $x_4$  = Hedonic Perception (HP)

While the final equation for the study is

PI= Constant +  $\beta$ (DD, ATT, RK, HP)

# **Testing of Hypothesis One:**

Ho1: There is no significant relationship between instant rebate coupon discount depth and online purchase intent.

To determine if the influence of instant rebate coupon discount depth on online customer purchase intention is significant, regression analysis was employed as inferential statistical testing tool, where p-value is at .05 and the decision rule is stated thus: if p-value is less than .05, the null hypothesis is rejected, and if p-value is greater than .05, the null hypothesis is not rejected.

Table 3

|       | ĮV.   | ioael Summary |                      |                                  |
|-------|-------|---------------|----------------------|----------------------------------|
| Model | R     | R Square      | Adjusted R<br>Square | Std. Error of<br>the<br>Estimate |
| 1     | .943ª | .889          | .889                 | 1.38236                          |

a. Predictors: (Constant), Discount Depth

|   |            |                   | Anov | <b>′a</b> °    |          |       |
|---|------------|-------------------|------|----------------|----------|-------|
|   | Model      | Sum of<br>Squares | df   | Mean<br>Square | F        | Sig.  |
|   | Regression | 4044.054          | 1    | 4044.054       | 2116.282 | .000b |
| 1 | Residual   | 502.573           | 263  | 1.911          |          |       |
|   | Total      | 4546.626          | 264  |                |          |       |

- a. Dependent Variable: Purchase Intention
- b. Predictors: (Constant), Discount Depth

### Coefficienta

|   | Model      | Unstandardized<br>Coefficients<br>B | Std.<br>Error | Standardized<br>Coefficients<br>Beta | Т      | Sig. |
|---|------------|-------------------------------------|---------------|--------------------------------------|--------|------|
| 1 | (Constant) | 3.157                               | .340          |                                      | 9.281  | .000 |
| 1 | PI         | 1.010                               | .022          | .943                                 | 46.003 | .000 |

a. Dependent Variable: Purchase Intention

# Interpretation of Results

 $Y = a + \beta(x_1)$   $PI=a + \beta (DD)$ 

The regression tables above show that there is a high level of fitness at R value of .943,  $R^2$  = .889 and F = 2116.282. The  $R^2$  of .889 implies that about 88.9% of the variation in purchase intention can be explained by discount depth whereas 11.1% cannot be explained by the regression model. However, the R value of .943 in this table indicates relationship that is strong and positive between the two variables (discount depth and purchase intention) which also helps in confirming the correlation results. Since F-sig. (p-value) of .000 is less than .05.

Thus, there exists a significant strong positive relationship between instant rebate coupon discount depth and purchase intention. Therefore, the null hypothesis is hereby rejected.

# **Testing of Hypothesis Two**

Ho2: There is no significant relationship between instant rebate coupon attractiveness and online purchase intention.

To examine if the influence of instant rebate coupon attractiveness on online customer purchase intention is significant, regression analysis was adopted as statistical testing tool, where p-value is at .05, with decision rule stated thus: if p-value < .05, the null hypothesis is rejected, and if p-value > .05, the null hypothesis is not rejected.

Table 4

|    |                   | Mod                   | del Summary |                      |                                  |
|----|-------------------|-----------------------|-------------|----------------------|----------------------------------|
|    | Model             | R                     | R Square    | Adjusted R<br>Square | Std. Error of<br>the<br>Estimate |
|    | 1                 | .943ª                 | .853        | .852                 | 1.59621                          |
| a. | Predictors: (Cons | tant), Attractiveness |             |                      |                                  |

|   | Anova      |                   |     |                |          |       |
|---|------------|-------------------|-----|----------------|----------|-------|
|   | Model      | Sum of<br>Squares | df  | Mean<br>Square | F        | Sig.  |
|   | Regression | 3876.535          | 1   | 3876.535       | 1521.477 | .000b |
| 1 | Residual   | 670.091           | 263 | 2.548          |          |       |
|   | Total      | 4546 626          | 264 |                |          |       |

- a. Dependent Variable: Purchase Intention
- b. Predictors: (Constant), Attractiveness

|              | Coefficient <sup>a</sup>            |                             |      |        |      |  |  |
|--------------|-------------------------------------|-----------------------------|------|--------|------|--|--|
| Model        | Unstandardized<br>Coefficients<br>B | Coefficients Std. Coefficie |      | t      | Sig. |  |  |
| 1 (Constant) | 1.060                               | .453                        |      | 2.340  | .020 |  |  |
| ATT          | .892                                | .023                        | .923 | 39.006 | .000 |  |  |

a. Dependent Variable: Purchase Intention

### Interpretation of Results

 $Y = a + \beta(x_2)$   $PI=a + \beta$  (ATT)

The tables above reveal that high level of fitness at R value of .923,  $R^2 = .852$  and F = 1521.477. The  $R^2$  of .852 signifies that about 85.2% of the variation in purchase intention can be explained by attractiveness, whereas 14.8% cannot be explained by the model. However, the R value of .923 in the table shows a strong and positive relationship between the two variables (attractiveness and purchase intention), which also helps in confirming the results of the correlation. Since F-sig. (p-value) of .000 is less than .05. Hence, there exist a significant strong positive relationship between instant rebate coupon attractiveness and purchase intention. Therefore, the null hypothesis is hereby rejected.

# 4.2.3. Testing of Hypothesis Three

Ho3: There is no significant relationship between instant rebate coupon perceived risk and online purchase intention.

To ascertain if the influence of instant rebate coupon perceived risk on online customer purchase intention is significant, regression analysis as inferential statistical testing tool was adopted, with p-value of .05 having the decision rule stated thus: if p-value is less than .05, the null hypothesis is rejected, and if p-value is greater than .05, the null hypothesis is not rejected.

Table 5

|   | Model Summary |      |          |                      |                                  |  |  |  |
|---|---------------|------|----------|----------------------|----------------------------------|--|--|--|
|   | Model         | R    | R Square | Adjusted R<br>Square | Std. Error<br>of the<br>Estimate |  |  |  |
| 1 |               | 968ª | 978      | 978                  | 1.03661                          |  |  |  |

a. Predictors: (Constant), Risk

|   |            |                   | Allova |                |          |       |
|---|------------|-------------------|--------|----------------|----------|-------|
|   | Model      | Sum of<br>Squares | df     | Mean<br>Square | F        | Sig.  |
|   | Regression | 4264.016          | 1      | 4264.016       | 3968.132 | .000b |
| 1 | Residual   | 282.611           | 263    | 1.075          |          |       |
|   | Total      | 4546.626          | 264    |                |          |       |

- a. Dependent Variable: Purchase Intention
- b. Predictors: (Constant), Risk

# Coefficienta

| Mode | el         | Unstandardized<br>Coefficients<br>B | Std.<br>Error | Standardized<br>Coefficients<br>Beta | t      | Sig. |
|------|------------|-------------------------------------|---------------|--------------------------------------|--------|------|
| 1    | (Constant) | 3.959                               | .237          |                                      | 16.737 | .000 |
|      | RK         | .810                                | .013          | .968                                 | 62.993 | .000 |

a. Dependent Variable: Purchase Intention

# Interpretation of Results

 $Y = a + \beta(x_3)$   $PI=a + \beta(RK)$ 

The regression tables above reveal that there is a high level fitness at R value of .968,  $R^2$  = .938 and F = 3968.132. The  $R^2$  of .938 means perceived risk can explained about 93.8% of the variation in purchase intention, while 6.2% remains unexplained by the model. However, the R value of .968 in the table shows a strong and positive relationship between the two variables (perceived risk and purchase intention), which also help in confirming the correlation results. Since the F-sig. (p-value) of .000 is less than .05. Hence there exist a significant strong positive relationship between instant rebate coupon perceived risk and purchase intention. Therefore, the null hypothesis is hereby rejected.

# **Testing of Hypothesis Four**

Ho4: There is no significant relationship between instant rebate coupon hedonic perception and online purchase intention.

To identify if the influence of instant rebate coupon hedonic perception on online customer purchase intention is significant, regression analysis as statistical testing tool was employed,

with p-value set at .05, having decision rule stated thus: if p-value < .05, the null hypothesis is rejected, and if p-value > .05, the null hypothesis is not rejected.

Table 6

| Model | R     | R Square | Adjusted R<br>Square | Std. Error<br>of the<br>Estimate |
|-------|-------|----------|----------------------|----------------------------------|
| 1     | .918ª | .842     | .842                 | 1.65130                          |

a. Predictors: (Constant), Hedonic perception

### **Anova**<sup>a</sup>

|   | Model      | Sum of<br>Squares | df  | Mean<br>Square | F        | Sig.  |
|---|------------|-------------------|-----|----------------|----------|-------|
|   | Regression | 3829.478          | 1   | 3829.478       | 1404.386 | .000b |
| 1 | Residual   | 717.148           | 263 | 2.727          |          |       |
|   | Total      | 4546.626          | 264 |                |          |       |

- a. Dependent Variable: Purchase Intention
- b. Predictors: (Constant), Hedonic Perception

| Coefficient <sup>a</sup> |                                     |               |                                      |                     |      |  |
|--------------------------|-------------------------------------|---------------|--------------------------------------|---------------------|------|--|
| Model                    | Unstandardized<br>Coefficients<br>B | Std.<br>Error | Standardized<br>Coefficients<br>Beta | t                   | Sig. |  |
| 1 constant)              | 1.237                               | .467          |                                      | 2.651               | .009 |  |
| HP                       | .425                                | .011          | .918                                 | 37. <del>4</del> 75 | .000 |  |

a. Dependent Variable: Purchase Intention

# Interpretation of Results

 $Y = a + \beta(x_4)$   $PI = a + \beta (HP)$ 

The tables above show that there is a high level of fitness at R value of .918,  $R^2$  =.842, and F =1404.386. The  $R^2$  of .842 implies that hedonic perception can explain about 84.2% of the variation in purchase intention, while 15.8% remains unexplained by the model. However, the R value of .918 in the table indicates a relationship that is strong and positive between the two variables (hedonic perception and purchase intention), which also helps in confirming the correlation results. Since the F-sig. (p-value) of .000 is less than .05. Hence there exist a significant strong positive relationship between instant rebate coupon hedonic perception and purchase intention. Therefore, the null hypothesis is hereby rejected.

### **Conclusions**

This study discovered that there exists a significant strong positive relationship between instant rebate coupon discount depth and online purchase intent among university students - university of Lagos, Nigeria. This result is in line with the findings of [33]. And the results also confirm the Mental Accounting Theory [17], as the retail price is less than expected price, the possibility of purchasing the laptop increases among the respondents. Also, this current study revealed that there exists a significant strong positive relationship between instant rebate coupon attractiveness and online purchase intention among university students – university of Lagos, Nigeria. This is corroborated by the findings of [58], and also confirms [19] findings in their extension study on mental accounting theory. This

study discovery of the existence of a significant strong positive relationship between instant rebate coupon perceived risk and online purchase intention is similar to the findings of [60].

Furthermore, the discovery of the existence of a significant strong positive relationship between instant rebate coupon hedonic perception and online purchase intention is in line with the findings of [61], and also confirm principle of congruence postulated [20]. Thus, it can be concluded that online shoppers (university students in Yaba local government, Lagos, Nigeria) are willing to embrace instant rebate coupon while shopping in online environment. However, this is contingent upon the perceived risk, attractiveness, discount depth and hedonic perception of the instant rebate coupon.

### Recommendation and Further studies

It is recommended that electronic retailers should increase the use of instant rebate coupon on their online stores, and also to assess critically and emphasize more on instant rebate coupon's perceived risk, discount depth and attractiveness in this order of arrangement, but not excluding hedonic perception which can also be used to attract potential customers and keep existing customers. Further studies can be conducted in extending the population of study, since this study considered only university students, other studies can consider different population categories such as housewives, working class etc. In addition, further studies can be conducted in the area of context by extending this study to other settings such as other states in Nigeria or other countries in Sub – Sahara Africa.

#### References

- 1. Dabrynin H., & Zhang J. (2019). The investigation of the online customer experience and perceived risk on purchase intention in China. *Journal of Marketing Development and Competitiveness*, 13(2), 16-30.
- 2. Paynter J. & Lim J. (2001). Drivers and impediments to e-commerce in Malaysia. *Malaysian Journal of Library and Information Science*, 6(2), 1-9.
- 3. Bourlakis M., Papagiannidis S. &Fox, H. (2008). E-consumer behaviour: past, present and future trajectories of an evolving retail revolution. *International Journal of E-Business Research*, *4*(3), 64-76.
- 4. Dawson S., & Kim M. (2009). External and internal trigger cues of impulse buying online. *Direct Marketing: An International Journal*. *3*(1), 20-34.
- 5. Kumar M., Rangachari A., Jhingran A., & Mohan R. (1998, August). Sales promotions on the Internet. In *3rd USENIX Workshop on Electronic Commerce* (pp. 167-176).
- 6. Dholakia U. M. (2011). How businesses fare with daily deals: A multi-site analysis of groupon, livingsocial, opentable, travelzoo, and buywithme promotions. *Living social, Opentable, Travelzoo, and BuyWithMe Promotions (June 13, 2011)*.
- 7. Dholakia U. M., & Tsabar G. (2011). A startup's experience with running a Groupon promotion. *Available at SSRN* 1828003.
- 8. Kang H., Hahn M., Fortin D. R., Hyun Y. J., & Eom Y. (2006). Effects of perceived behavioral control on the consumer usage intention of e-coupons. *Psychology & Marketing*, *23*(10), 841-864.
- 9. Oliver R. L., & Shor, M. (2003). Digital redemption of coupons: Satisfying and dissatisfying effects of promotion codes. *Journal of Product & Brand Management*. 12(2), 121-134.
- 10. Sigala M. (2015). A framework for designing and implementing effective online coupons in tourism and hospitality. *Journal of Vacation Marketing*, *19*(2), 165-180.
- 11. Thompson C. J. (1997). Interpreting consumers: A hermeneutical framework for deriving marketing insights from the texts of consumers' consumption stories. *Journal of marketing Research*, *34*(4), 438-455.
- 12. Ibam E. O., Boyinbode O. K., & Afolabi M. O. (2017). E-commerce in Africa: The case of Nigeria. *EAI Endorsed Trans Serious Games*, *4*(15), 1-6.
- 13. Aderibigbe N. (2015, February 20). Ventures Africa / Nigeria is Africa's leading ecommerce market. Retrieved from <a href="http://www.ventures-africa.com/2015/02/nigeria-is-africas-leading-ecommerce-market/">http://www.ventures-africa.com/2015/02/nigeria-is-africas-leading-ecommerce-market/</a>
- 14. Blattberg R. C., & Neslin S. A. (1990). Sales promotion: Concepts, methods, and strategies. Prentice Hall.
- 15. Pitta D. (2011). Internet currency from *Journal of Consumer Marketing*, 27(2): 23 41.
- 16. Zhang X., Prybutok V.R. and Strutton D. (2007). 'Modeling influences on impulse purchasing behaviors during online marketing transactions', *Journal of Marketing Theory and Practice*, *15*(1), 79-89.

- 17. Thaler R. (1985). Mental accounting and consumer choice. Marketing science, 4(3), 199-214.
- 18. Sivakumar K. (1996). Tradeoff between frequency and depth of price promotions: Implications for high-and low-priced brands. *Journal of Marketing Theory and Practice*, 4(1), 1-8.
- 19. Allenby G. M., & Rossi P. E. (1991). Quality perceptions and asymmetric switching between brands. *Marketing science*, 10(3), 185-204.
- 20. Chandon P., Wansink B. & Laurent G (2000) A benefit congruency framework for sales promotion effectiveness. *Journal of Marketing*, *64*(4): 65–81.
- 21. Arnold M. J., & Reynolds K. E. (2003). Hedonic shopping motivations. *Journal of Retailing*, *79*(2), 77–95. doi:10.1016/s0022-4359(03)00007-1
- 22. Shields P., & Rangarajan N. (2013). A Playbook for Research Methods: Integrating Conceptual Frameworks and Project Management. Stillwater, OK: New Forums Press. ISBN 1-58107-247-3.
- 23. Heilman C. M., Nakamoto K., & Rao A. G. (2002). Pleasant surprises: Consumer response to unexpected in-store coupons. *Journal of Marketing Research*, *39*(2), 242-252.
- 24. Neha S., & Manoj, V. (2013). Impact of sales promotion tools on consumer's purchase decision towards white good (refrigerator) at Durg and Bhilai Region of CG, India. *Research Journal of Management Sciences ISSN*, 2319, 1171.
- 25. Andrews M., Goehring J., Hui, S., Pancras J., & Thornswood L. (2016). Mobile promotions; A framework and research priorities. *Journal of Interactive Marketing*, *34*, 15 24.
- 26. Kalwani M. U & Yim C. K (1992) Consumer price and promotion expectations: an experimental study. *Journal of Marketing Research*, *29*(1): 90–100.
- 27. Greenleaf E. A (1995). The impact of reference price effects on the profitability of price promotions. *Marketing Science*, 14(1): 82–104.
- 28. Lewis M. (2006) Customer acquisition promotions and customer asset value. *Journal of Marketing Research*, 43: 195–203.
- 29. Narasimhan C. (1984). A price discrimination theory of coupons. Marketing Science, 3(2), 128-147.
- 30. Bawa K. & Shoemaker R.W. (1987). The coupon-prone consumer: Some findings based on purchase behaviour across product classes. *Journal of Marketing*, *51*(4): 99-110.
- 31. Neslin S. A (1990). A market response model for coupon promotions. Marketing Science, 9(2): 125–145.
- 32. Raghubir P. & Corfman K. (1999). When do price promotions affect pretrial brand evaluations" *Journal of Marketing Research*, *36*(2), 211-222.
- 33. Chiou-Wei S. Z., & Inman J. J. (2008). Do shoppers like electronic coupons?: A panel data analysis. *Journal of Retailing*, 84(3), 297-307.
- 34. Liao S. (2006). The effects of nonmonetary sales promotions on consumer preferences: The contingent role of product category. *Journal of American Academy of Business, Cambridge*, 8(2), 196-212.
- 35. Bawa K., Srinivasan S. S., & Srivastava R. K. (1997). Coupon attractiveness and coupon proneness: A framework for modeling coupon redemption. *Journal of Marketing Research*, *34*(4), 517-525.
- 36. Laroche M., Yang Z., McDougall G.H.G. & Bergeron J. (2005). Internet versus bricks-and-mortar retailers: An investigation into intangibility and its consequences. *Journal of Retailing*, 81(4), 251-267.
- 37. Ko HJ., Jung J.M., Kim J.Y., & Shim S.W. (2004). Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising*, 4(2), 20-29.
- 38. Ha Y., & Im H. (2014). Determinants of mobile coupon service adoption: Assessment of gender difference. *International Journal of Retail & Distribution Management*. *42*(5), 441-459.
- 39. Solomon M. R. (2011). Consumer Behavior: Buying, Having, and Being, Global Edition. Pearson, 14(2), 116-124.
- 40. Choi J., & Lee K-H. (2003). Risk perception and e-shopping: A cross-cultural study. *Journal of Fashion Marketing and Management*, 7(1), 49-64. Doi:10.1108/13612020310464368
- 41. Simon S. M., & Victor T. F. (1994). Customers' risk perceptions of electronic payment systems. *International Journal of Bank Marketing*, *12*(8), 26-38. doi:10.1108/02652329410069029
- 42. Hirschman E.C., & Holbrook M.B. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *Journal of Marketing*, 46(3), 92-107. doi:10.2307/1251707
- 43. Kelemen Z., Nagy P., & Kemény I. (2016). How to transfer a coupon-based event into a hedonic shopping experience? Retail branding implications based on the glamour shopping days. *Society and Economy*, *38*(2), 219-238.
- 44. Grange C. & Benbasat, I (2010). Online social shopping: the functions and symbols of design artifacts. In: Proceedings of the 43rd Hawaii International Conference on System Sciences 2010, IEEE Computer Society, 978-0-7695-3869-3/10, Honolulu, USA, 05 Jan 08 Jan 2010.

- 45. Kozinetz R.V. (1999) E-Tribalized marketing? The strategic implications of virtual communities of consumption. *European Management Journal*, *17*(3): 252–264.
- 46. Park E. J., Kim E. Y., Funches V. M., & Foxx W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research*, *65*(11), 1583-1589.
- 47. Swaminathan V., Lepkowska-White E., & Rao B. P. (2003). The Internet and consumer buying behavior: A research framework and analysis. *Current topics in e-commerce*, 64-84.
- 48. Inman J. J. & McAlister L (1994) Do coupon expiration dates affect consumer behavior? *Journal of Marketing Research*, *31*(3): 423–428.
- 49. Babin B. J., Darden W. R., & Griffin M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of consumer research*, 20(4), 644-656.
- 50. Ramanathan S., & Menon, G. (2006). Time-varying effects of chronic hedonic goals on impulsive behavior. *Journal of Marketing Research*, *43*(4), 628-641. doi:10.1509/jmkr.43.4.628
- 51. Meskaran F., Ismail Z. & Shanmugam B. (2013). Online purchase intention: effects of trust and security perception, *Australian Journal of Basic and Applied Sciences*, 7(6), 307-315.
- 52. Salisbury W.D., Pearson R.A., Pearson A.W. & Miller D.W. (2001). Perceived security and worldwide web purchase intention. *Industrial Management & Data Systems*, 101(4), 165-177.
- 53. Iqbal S., Rehman K. & Hunjra A.I. (2012). Consumer intention to shop online: B2C e-commerce in developing countries. *Middle East Journal of Scientific Research*, 12(4), 424-432.
- 54. Jamali, S.K., Samadi, B. & Marthandan, G. (2014). Prioritizing electronic commerce technologies in Iranian family SMEs. *Interdisciplinary Journal of Contemporary Research in Business*, 6(2), 148-180.
- 55. Close A.G. & Kukar-Kinney M. (2010). Beyond buying: motivations behind consumers' online shopping cart use. *Journal of Business Research*, *63*(9/10), 986-992.
- 56. Babin L. A., Babin B. J., & Boles J. S. (1999). The effects of consumer perceptions of the salesperson, product and dealer on purchase intentions. *Journal of Retailing and Consumer Services*, 6(2), 91-97.
- 57. Chen S. F. S., Monroe K. B., & Lou Y. C. (1998). The effects of framing price promotion messages on consumers' perceptions and purchase intentions. *Journal of retailing*, *74*(3), 353-372.
- 58. Santini F. D. O., Sampaio, C. H., Perin, M. G., & Vieira, V. A. (2015). An analysis of the influence of discount sales promotion in consumer buying intent and the moderating effects of attractiveness. *Revista de Administração (São Paulo)*, 50, 416-431.
- 59. Xu Y., & Huang J. S. (2014). Effects of price discounts and bonus packs on online impulse buying. *Social Behaviour and Personality: An International Journal*, 42(8), 1293 1302.
- 60. Ariffin S. K., Mohan T., & Goh Y. N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*. 12(3), 309-327
- 61. Chen Y. C., Shang R. A., Shu C. Y., & Lin C. K. (2015). The effects of risk and hedonic value on the intention to purchase on group buying website: The role of trust, price and conformity intention. *Universal Journal of Management*, *3*(6), 246-256.
- 62. University of Lagos, Nigeria (2021). https://unilag.edu.ng
- 63. Yamene T. (1967). Statistics: an introductory text.
- 64. Bruner G.C. II, & Hensel PJ. (1998). Marketing scales handbook: A compilation of multi-items measures (v.2). Chicago: American Marketing Association.
- 65. Voss K. E., Spangenberg E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of Marketing Research*, 40(3), 310-320. doi:10.1509/jmkr.40.3.310.19238
- 66. Stone R.N., & Grønhaug K. (1993). Perceived risk: Further considerations for the marketing discipline. *European Journal of Marketing*, *27*(3), 39-50. doi:10.1108/03090569310026637
- 67. Teimoury E., Fesharaki M., & Bazyar A. (2010). The relationship between mediated power asymmetry, relational risk perception, and governance mechanism in new product development relationships. *Journal of Research in Interactive Marketing*, 4(4), 296-315. doi:10.1108/17505931011092817
- 68. Churchill Jr. G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 16(1), 64-73.
- 69. Adedayo D. A. (2006). Understanding of statistical methods. Ibadan, Grace Springs Publishers.

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# INTERACTION EFFECT OF INFORMALITY AND CORRUPTION ON INCOME INEQUALITY IN NIGERIA

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**Abstract.** Engagement in informal economic activities serves as a survival strategy for underprivileged majority in developing economies with high level of corruption. Consequently, this study examined the main and interaction effects of informality and corruption on income inequality in Nigeria from 1996 to 2020 using autoregressive distributed lag-bound testing technique. The study result showed evidence of long-run relationship among informality, corruption and income inequality. The main effects of informality and corruption on income inequality are negative and statistically significant in both the short and long run. However, corruption reduction in a year was found to reduce income inequality in the subsequent year. Furthermore, the interaction effect of informality and corruption on income inequality was found to be negative and statistically significance in both the short run and the long run. Corruption reduction was found to be a necessary but not sufficient condition for reduction of inequality. Consequently, this study recommended creation of socioeconomic environment conducive for the growth, expansion and eventual formalization of informal businesses. The study also recommended that inequality-reduction be made the end goal of corruption-reduction by ensuring that the proceeds from successful anticorruption campaign are channelled to policies and public projects which redistribute income to the less privileged.

**Keywords:** elite capture, income redistribution, shadow economy, underprivileged majority, socioeconomic environment.

**Rezumat.** Implicarea în activități economice informale servește drept strategie de supraviețuire pentru majoritatea defavorizate din economiile în curs de dezvoltare cu un nivel ridicat de corupție. În consecință, acest studiu a examinat efectele principale și de interacțiune ale informalității și corupției asupra inegalității veniturilor din Nigeria, din 1996 până în 2020, utilizând tehnica de testare autoregresivă a întârzierilor distribuite. Rezultatul studiului a arătat dovezi ale relației pe termen lung între informalitate, corupție și inegalitatea veniturilor. Principalele efecte ale informalității și corupției asupra inegalității veniturilor sunt negative și semnificative statistic atât pe termen scurt, cât și pe termen lung.

Cu toate acestea, sa constatat că reducerea corupției într-un an reduce inegalitatea veniturilor în anul următor. Mai mult, efectul de interacțiune al informalității și corupției asupra inegalității veniturilor sa dovedit a fi negativ și semnificativ statistic atât pe termen scurt, cât și pe termen lung. S-a constatat că reducerea corupției este o condiție necesară, dar nu suficientă, pentru reducerea inegalității. În consecință, acest studiu a recomandat crearea unui mediu socioeconomic propice creșterii, expansiunii și, eventual, formalizării afacerilor informale. Studiul a recomandat, de asemenea, ca reducerea inegalității să devină obiectivul final al reducerii corupției, asigurându-se că veniturile din campania de succes anticorupție sunt canalizate către politici și proiecte publice care redistribuie veniturile către cei mai puțin privilegiați.

**Cuvinte cheie:** captarea elitei, redistribuirea veniturilor, economia subterană, majoritate defavorizată, mediu socioeconomic.

#### Introduction

Despite her internal challenges, Nigeria remains Africa's largest economy and one of the rapidly growing economies in the world. However, the proceeds of such growth accrue to a small group of privileged elite at the expense of the underprivileged majority who have to live in extreme poverty. Even though income disparity is a common global challenge, income inequality in Nigeria is at the extreme [1]. According to Forbes' 2016 ranking of World's billionaires the richest Nigerian can earn 8000 times more than the average yearly basic consumption spending of the poorest 10% of Nigerians in on day. Furthermore, the Nigerian legislators with a yearly salary of \$189,000 (equivalent to 116 times the country's GDP per capita) are one of the highest paid lawmakers in the world [2]. Besides high cost of governance, elite capture of public policies and resources, regressive taxation and misallocation of public resources are other factors contributing to income inequality in Nigeria [1]. According to [1] the culture of corruption and rent-seeking combined with political elite disconnected from the daily challenges of everyday Nigerian are the root cause of the aforementioned factors contributing to income inequality. This view has been corroborated by several empirical studies which found significant positive effect of corruption on international income inequality [3 - 5]. These studies recognize the adverse effect of corruption on socioeconomic conditions of the underprivileged at the bottom of income distribution. It is therefore no coincidence that severe income inequality is inherent in developing countries with high level of corruption. Engagement in informal economic activities is a common survival strategy for the less privileged majority facing inhumane socioeconomic conditions in developing countries. However, the recent fall in global demand; disruptions in global supply chains and capital flows and travel and lockdown necessitated by the emergence of COVID-19 pandemic have had adverse effect on the livelihood of informal workers in Nigeria [6]. For instance, the 3 month nationwide economic lockdown necessitated by the pandemic was estimated to result in job loss for about 13 million Nigerians, with most job loss occurring in the informal sector [7]. The fact that most informal workers earn daily-survival income shows that income insecurity is inherent in the informal sector. Besides, low income and income insecurity, the informal sector is also bedevilled by other unfavourable socioeconomic conditions such as high cost of living and poor social safety nets resulting from years of systemic corruption and mismanagement [6].

Furthermore, several empirical studies have discovered positive relationship between level of corruption and size of informal sector [8 - 10]. Since developed countries usually

have better corruption indicators than their developing counterpart then level of corruption may explain why developing countries like Nigeria have large informal sector. According to the corruption perception index 2021, developed countries of Western Europe and European Union had the best regional corruption perception index with a regional average score of 66% while developing countries of Sub-Saharan Africa had the worst regional corruption perception index with a regional average of 33% [11]. Hence, it is not surprising that the informal sector provides about 93% of all employment in Nigeria which doubles as the most populated and largest economy in sub-Saharan region and Africa [12].

According to [13], prevalence of bribery and rent seeking behaviour among corrupt politicians, bureaucrats, law enforcement agencies and other regulators is responsible for the positive relationship between corruption and informality. Such distortional behaviour often creates unfavourable socioeconomic conditions which limit the access of the underprivileged majority to formal economic opportunities, thereby forcing them to earn a living via informal economic activities. Furthermore, corrupt government often lack the political will to address informality as doing so may redistribute income away from the privileged minority who controls the socioeconomic and political dimension of the society. Similarly, given loss of confidence in corrupt administration the masses may see any attempt to develop and formalize informal businesses as a threat to a source of their livelihood. Consequently, corrupt government often shy away from addressing informality to appease the less privileged majority who determines the election and re-election of those in government.

The notion that engagement in informal economic activities serve as a survival strategy for the underprivileged majority in developing economies with high level of corruption may fill an important gap in the study of income inequality. As such notion implicitly assumes that access to informal economic opportunities reduce income inequality at higher levels of corruption. However, studies on the interaction effect of informality and corruption on income inequality are relatively scarce [14 - 16]. Besides, none of these studies focused on the interaction effect of informality and corruption on income inequality in Nigeria. Furthermore, there is yet no consensus among scholars on the main effects of corruption and informality on income inequality as mixed effects of both variables on income inequality are recorded in the literature [17 - 20].

Despite having abundance of human and non-human natural resources, Nigeria like other developing countries is bedevilled by corruption; large informal sector and income inequality which prevent the optimization of the developmental benefits of her natural resources. Consequently, this study aims to investigate the interaction and main effects of informality and corruption on income inequality in Nigeria from 1996 to 2020 using the autoregressive distributive lag bounds testing technique. The subsequent sections of this study include literature review; research methods; presentation and discussion of empirical findings; conclusion and policy recommendation.

### Literature Review

There are a few distinct but complementary theoretical perspectives to informal economy which explains the link between informal economy, corruption and income inequality. Specifically, the dualist perspectives to informal economy opined that the informal economic activities are small businesses (distinct and unrelated to formal economic activities) which provide safety net and income for the underprivileged majority facing unfavourable socioeconomic conditions such as income inequality and unemployment [21 - 23]. However,

the dualist theoretical perspective only emphasised the reasons why the less privileged majority engage in informal economic activities without laying much emphasis on the root cause of unfavourable socioeconomic conditions which compel the underprivileged majority to resort to informal economic activities for survival.

The legalist theoretical perspective to informal economy corroborated the submissions of the dualist theoretical perspective by concluding that informal economic activities exist due to systemic corruption which enables the privileged minority to influence government decisions making process to their advantage. The inhumane socioeconomic conditions emanating from such state capture by the elite force the underprivileged majority to engage in informal economic activities for survival [24]. This notion is similar to the submission structuralist theoretical perspective which sees informal economic activities as masses-owned small businesses highly exploited by elite-owned large businesses for minimization of labour and other input cost. Each of this theoretical perspective suggested creation of enabling socioeconomic conditions which provides a level playing ground for everyone in the economy [25]. In sum, systemic corruption force the less privileged majority is to operate in the informal economy to minimize the adverse effect of unfavourable socioeconomic conditions (income inequality).

The findings of a study on the impact of the size of informal sector on the relationship between corruption and income inequality in 50 developing countries using quintile regression approach and Kao residual co- integration test revealed that large informal economy mitigate the positive effect of corruption on income inequality. The mediating effect of informality on the positive impact of corruption on income inequality was attributed to the ability of the informal sector in developing countries to increase earnings among the less privileged majority who remained unemployed. Furthermore, the findings from the study revealed that corruption creates asymmetry in distribution of income and that such asymmetry is higher at higher levels of corruption [15].

Investigation of the claim by previous Latin American studies that the trade-off between corruption and inequality in Latin America was due to large informal sector [26 - 28] in 141 developing countries using ordinary least square, instrumental variable, modified limited information maximum likelihood and panel estimation techniques confirms the impact of informal sector on the link between corruption and income inequality. Specifically, the marginal impact of corruption on income inequality was found to be negative at higher levels of informality. Furthermore, the findings from the study confirm mediating effect of informality on the relationship between corruption and income inequality in Latin America [14].

Similarly, [16] investigated whether purported effect of informality on the link between corruption and income inequality is applicable to 19 developing countries in Asia using panel least square and fixed effects models. The result from the study which span from 1995 to 2008 discovered that corruption increase income inequality in developing countries of Asia. Using south Asian dummy to capture predominance of shadow economies in south-eastern Asia, the study discovered that corruption increases inequality in the absence of the shadow economy. However, the relationship between corruption and inequality becomes negative as shadow economies in the South Asian countries become bigger. Furthermore, findings from the study revealed that large shadow economies reduce income inequality even if corruption is rising.

The empirical study of the effect of corruption on income inequality in 48 contiguous states in the United States of America from 1981 to 1987 using the Arrelano-Bover/ Blundell-

Bond system GMM estimation technique revealed a significant positive effect of corruption on income inequality in the United States [3]. This finding was affirmed other studies using different estimation technique and sample [5, 17]. Conversely, [28] found strong evidence that corruption increases income inequality if the level of corruption is above the threshold of corruption otherwise the effect of corruption on income inequality is not detrimental.

However, using dynamic GMM model [18] discovered insignificant effect of corruption on income inequality despite finding a significant positive effect of income inequality on corruption in a panel of 50 countries from 1995 to 2015.

Using fixed effect, random effect and simultaneous generalised method of moments [19] examined the impact of shadow economy on income inequality in 19 Asian countries from 1990 to 2015. The findings from the study revealed that the shadow economy significantly increases the income share held by the less privileged majority at the bottom of income distribution ladder and decreases the income share of the privileged minority at the top of income distribution ladder. Combining the dualist, legalist and voluntarist schools of thought on shadow economy, the study concluded that shadow economy is not always bad especially for the poor. Consequently, policies directed towards contraction of shadow economy should simultaneously provide other solutions to poverty and income inequality. Conversely, [20] discovered a positive long run and short run effect of shadow economy on income inequality in Uganda using autoregressive distributed lag (ARDL) bounds testing approach to co-integration. The findings from the study suggested that large shadow economy worsen income inequality because the less privileged majority who survives in the shadow economy have limited access to livelihood opportunities.

#### **Research Methods**

## **Data Source and Description**

This study analysed annual time series data on Nigeria from 1996 to 2020. The study period was determined data availability. Time series study is opted for due to its ability to detect the peculiarities and uniqueness which are usually lost in panel studies. The data analysed were sourced from world governance indicators, [29] and World Income Inequality database. The dependent variable, Income inequality (INE) is proxied by Gini market income which measures inequality in pre-tax and pre-transfer income. The explanatory variable corruption (COR) is proxied by control of corruption which measures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests. The explanatory variable Informality (INF) proxied by share of informal economy in gross domestic product measures the size of informal economy in a country.

## **Model Specification**

This study is based on the submissions of the dualist theoretical perspective that the underprivileged engage in informal economic activities in order to mitigate the adverse effect of unfavourable socioeconomic conditions such as income inequality; and the believe of the legalist theoretical perspective on informality that inhumane socioeconomic conditions which necessitates engagement in informal economic activities is caused by systemic corruption. Given this theoretical submission the implicit model for the study is specified as:

$$INE = f(COR, INF, INFO * COR)$$
(1)

The implicit model in Eq. (1) can be explicitly specified in ARDL form as

$$\Delta INE_{t} = \beta_{0} + \beta_{1}\Delta INE_{t-1} + \beta_{2}\Delta COR_{t} + \beta_{3}\Delta COR_{t-1} + \beta_{4}\Delta COR_{t-2} + \beta_{5}\Delta COR_{t-3} + \beta_{6}\Delta INF_{t} + \beta_{7}\Delta (INF * COR) + \beta_{8}\Delta (INF * COR)_{t-1} + \alpha_{1}INE_{t-1} + \alpha_{2}COR_{t-1} + \alpha_{3}INF_{t-1} + \alpha_{4}(INFO * COR)_{t-1} + \mu_{t}$$
(2)

Given the long run model as

$$INE = \alpha_1 COR + \alpha_2 INF + \alpha_3 INF * COR + ECT$$
 (3)

Superimposing

$$\alpha X_t = \alpha_1 COR + \alpha_2 INF + \alpha_3 INF * COR$$
 (4)

Then

$$ECT = INE - \alpha X_t \tag{5}$$

And lagged error correction term (ECT) is:

$$ECT_{t-1} = INE_{t-1} - \alpha X_{t-1} \tag{6}$$

Replacing the long-run effects in the ARDL model in equation (2) with the one period lag of error correction term (ECT<sub>t-1</sub>) and making  $\theta$  the coefficient of ECT<sub>t-1</sub> then restricted version of the ARDL model [(error correction model (ECM)] is specified as:

$$\Delta INE_{t} = \beta_{0} + \beta_{1} \Delta INE_{t-1} + \beta_{2} \Delta COR_{t} + \beta_{3} \Delta COR_{t-1} + \beta_{4} \Delta COR_{t-2} + \beta_{5} \Delta COR_{t-3} + \beta_{6} \Delta INF_{t} + \beta_{7} \Delta (INF * COR) + \beta_{8} \Delta (INF * COR)_{t-1} + \boldsymbol{\theta} + \mu_{t}$$

$$(7)$$

Where: INE is the income inequality proxied by Gini market income COR is corruption proxied by control of corruption INF is share of informal economy in gross domestic product  $\beta_0$  is the intercept or constant  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are short-run coefficients  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ ,  $\alpha_4$ , are long-run coefficients  $\boldsymbol{\theta}$  is the coefficient of the error correction term  $\mu_t$  is the error term.

## **A Priori Expectation**

Given the theoretical framework, the main effect of corruption control (COR) on income inequality is expected to be negative (coefficient of COR < 0) since decrease in corruption is expected to create socioeconomic conditions which facilitate redistribution of income to those at the bottom of the income distribution pyramid. Similarly, the main effect of informality (INF) on income inequality (INE) is expected to be negative (coefficient of INF < 0) since increase in the share of informal economy in the GDP is expected to redistribute more income to the less privileged majority who earn a living in the informal economy. Furthermore, the interaction effect of informality and corruption control on income inequality is expected to be either negative, positive or zero. (Coefficient of INF\*COR < > = 0). Specifically, the effect of informality on income inequality depends on the level of corruption. Higher levels of corruption control (Lower levels of corruption) is expected to create socioeconomic conditions which increase access of the less privileged majority (hitherto earning meagre income in the informal economy) to more lucrative formal economic opportunities thereby reducing informality and income inequality. Conversely, lower levels of corruption control (higher levels of corruption) is expected to create socioeconomic conditions which force more less privileged people (hitherto earning sufficient income in the formal economy) to earn meagre income in the informal economy thereby increasing informality and income inequality. However, informality is expected to have no effect on income inequality at critical level of corruption. The coefficient of the error correction term  $(\theta)$  is expected to fall between 0 and -1 and statistically significant.

## **Estimation Technique**

This study used autoregressive distributive lag bounds testing (ARDL-Bounds Testing) technique to estimate the link between corruption, informality and income inequality in Nigeria. The ARDL-Bounds testing technique requires series to be integrated either of order

zero [I(0)] or order one [I(1)] such that the variables estimated are a mix of both orders. Consequently, the Augmented Dickey-Fuller (ADF) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Unit-root test unit root tests were employed to ensure that the study variables meet this requirement. Specifically, the ARDL-bounds testing technique is used to ascertain evidence of long-run effects of corruption and informality on income inequality and co integration amongst variables. Having rejected the null hypothesis of no long-run relationship, the error correction model (ECM) was estimated for the short- run effects of corruption and informality on income inequality and the coefficient of the error correction term (ECT) which measures the speed of adjustment of short-run deviation from long-run equilibrium. Afterwards, post estimation diagnostics was carried out to ensure the reliability of the estimates. The optimal lag for the autoregressive distributive lag model is selected using the Akaike information criterion (AIC). Descriptive analysis was also carried out to analyse the descriptive properties of the study variables. The correlation matrix of the pair wise correlation coefficients of the study variables was used to ensure that none of the explanatory variables are perfectly correlated.

## Presentation and Discussion of Empirical Findings Descriptive Statistics

Table 1 presents the descriptive properties of the variables used in this study. The differences between the median and mean values of each of the variables are negligible. This minimal difference implies the absence of outliers in the series since mean values are more susceptible to outliers than median values. The maximum value of income inequality (INE) shows that income inequality during the study period was below possible average. The maximum value of corruption (COR) shows that Nigeria's performance in corruption control during the study period was far below possible average. The maximum and minimum value of informality (INF) shows that share of informal economy in the GDP during the study period was above possible average. The probability values of the Jarque-Bera statistics fails to reject the null hypothesis of normal distribution at 5% significance level. This implies that the series used in this study are normally distributed. The standard deviation values of the corruption (COR) and income inequality (INE) are below one standard deviation while the standard deviation value of Informality (INF) is slightly above four standard deviations. This implies that income inequality (INF) and corruption (COR) are more concentrated around their mean than informality (INF).

**Descriptive Statistics** 

Table 1

| INE                     | COR  | INF  |
|-------------------------|--|--|
| 46.19600                | -1.148400  | 59.50920   |
| 46.20000                | -1.150000  | 59.49000   |
| 47.00000                | -0.890000  | 67.65000   |
| 45.20000                | -1.430000  | 52.08000   |
| 0.452290                | 0.117249   | 5.743543   |
| 0 - 100                 | -2.5 – 2.5   | 0 - 100  |
| 0.776084<br>( 0.678384) | 1.053604<br>(0.590490)   | 0.466969<br>(0.791770)   |
|                         | 1NE<br>46.19600<br>46.20000<br>47.00000<br>45.20000<br>0.452290<br>0 - 100<br>0.776084 | 46.19600       -1.148400         46.20000       -1.150000         47.00000       -0.890000         45.20000       -1.430000         0.452290       0.117249         0 - 100       -2.5 - 2.5         0.776084       1.053604 |

Source: Authors' Computation Using E-view 10 (2022).

#### **Correlation Matrix**

Table 2 presents the correlation matrix of the pair wise correlation coefficients of the variables used in the study. The pair-wise correlation coefficients of the explanatory variables show that no pair of explanatory variables is perfectly correlated.

Table 2

|          |           | <b>Correlation Matr</b> | ix        |          |
|----------|-----------|-------------------------|-----------|----------|
|          | logINE    | COR                     | INF       | INFO*COR |
| logINE   | 1         |                         |           |          |
| CORR     | -0.280258 | 1                       |           |          |
| INF      | -0.698837 | 0.556870                | 1         |          |
| INFO*COR | 0.229123  | 0.713144                | -0.181186 | 1        |

Source: Authors' computation using E-view 10 (2022).

#### **Unit Root Test**

Table 3 presents the results of the Augmented Dickey-Fuller (ADF) and Kwiatkowski-Phillips-Schmidt-Shin unit root tests. The ADF statistics for log of income inequality (logINE), corruption (COR) and informality (INF) exceeds their respective 5% critical values at first difference while the ADF statistics for the interaction of corruption and informality (INF\*COR) its 5% critical value at level. This implies that income inequality (INE), corruption (COR) and informality (INF) are integrated of order one I(1) while the interaction of corruption and informality (INF\*COR) is integrated of order zero I(0). Conversely, the KPSS statistics for log of income inequality (logINE), corruption (COR) and interaction of corruption and informality (COR\*INF) are below their 5% critical value at level while the KPSS statistics for informality (INF) is below 5% critical value at first difference. This implies that income inequality (INE), corruption (COR) and interaction of corruption and informality (INF\*COR) are integrated of order zero I(0) while informality (INF) is integrated of order zero I(1). In sum, the results of the unit root tests confirm that the series to be estimated fulfils the stationary requirement of ARDL-bounds testing technique.

Table 3
Augmented Dickey-Fuller (ADF) and Kwiatkowski-Phillips-Schmidt-Shin Unit-root Test

| ADF           |      |           |                      |                  |           | KPSS              |  |
|---------------|------|-----------|----------------------|------------------|-----------|-------------------|--|
| H₀: Unit Root |      |           |                      | H₀: Stationarity |           |                   |  |
| Variable      | l(n) | Statistic | Critical Value<br>5% | l(n)             | Statistic | Critical value 5% |  |
| logINE        | l(1) | -4.3155   | -2.9981              | I(0)             | 0.0716    | 0.1460            |  |
| COR           | l(1) | -6.2334   | -3.0404              | I(0)             | 0.2206    | 0.4630            |  |
| INF           | l(1) | -7.2307   | -2.9919              | l(1)             | 0.0977    | 0.4630            |  |
| INF*COR       | I(0) | -3.0345   | -2.9919              | I(0)             | 0.0901    | 0.4630            |  |

Source: Authors' computation using E-view 10 (2022).

#### **Bounds Test Result**

Table 4 presents the result of the bounds test for levels relationship among corruption, informality and income inequality. The absolute values of F-statistics (9.2341) and T-Statistic (5.5660) exceed the upper bound values of 4.35 and 3.78 at 5% significance level respectively. This suggests rejection of the null hypothesis of no levels relationship among corruption, informality and income inequality. Hence there is evidence of long run relationship among the study variables.

|                            |        |                     | Table 4 |
|----------------------------|--------|---------------------|---------|
|                            | Βοι    | ınds test           |         |
| H <sub>0</sub> : No levels |        |                     | _       |
| Relationship               |        |                     |         |
| F Statistic                | 9.2341 | T Statistic         | -5.5660 |
| 5% Lower Bound 1(0)        | 3.23   | 5% Lower Bound 1(0) | 2.86    |
| 5% Upper Bound 1(1)        | 4.35   | 5% Upper Bound 1(1) | -3.78   |

Source: Authors' computation using E-view 10 (2022).

## Longrun and Shortrun Estimates of the Main and Interaction Effects of Informality and Corruption on Income Inequality

Table 5 presents long-run estimates of the ARDL model, Error correction Model estimates and analysis of the interaction effect of informality and corruption on income inequality. The p-values of the long-run coefficients of corruption control (0.0010), informality (0.0003) and interaction of informality and corruption control (0.0025) are statistically significant at 1% level. Similarly, the p-values of short-run coefficients of corruption control (0.0000), one period lag of corruption control (0.0354) and interaction of informality and corruption control (0.0000) are statistically significant at 5% level. However, the p-value of two period lag of corruption  $\Delta$  [COR (-2)]) is not statistically significant at 5% level. The sign of the long-run and short-run coefficients of the explanatory variables reveals that corruption control and informality have negative interaction effect on log of income inequality (logINE) in both the long run and short run. Conversely, the main effect of corruption control (COR) on log of income inequality (INE) in the short run and long run is positive. However, one period lag of corruption control ( $\Delta$  [COR(-1)]) have negative effect on income inequality (INE).

The long-run coefficient of corruption (0.4148) implies that 1 index increase in control corruption index will yield about 41.48 % increase in income inequality in the long run. Similarly, the short run coefficient of corruption (0.3237) implies that 1 index increase in control of corruption index (reduction in corruption) in the current year will yield about 32.37 % increase in income inequality in the same year. This may also imply that corruption reduction in itself is not a sufficient condition for inequality reduction. The negative effect of corruption on income inequality implied by the findings of this study disagrees with a priori expectation since reduction in systemic corruption is expected to redistribute income to the underprivileged majority. This finding however partially agrees with Messy [28] and disagrees with Dincer and Gunalp [3]; Gupta et al. [17]; Dwiputri et al. [5]. Nevertheless, the coefficient of one period lag of corruption (-0.0164) shows that 1 index increase in corruption control in the current year will yield about 1.64 % reduction in income inequality) in the subsequent year. This implies that the inequality-reduction effect of intensified anticorruption effort in the current year may materialize in the subsequent year.

The long-run coefficient of informality (-0.0099) implies that 1 % increase in informality will yield about 0.99 % decrease in income inequality in the long run. The negative effect of informality on income inequality agrees with a priori expectation since increase in the share of informal economy in the gross domestic product is expected to redistribute income to the underprivileged majority. This finding agrees with with Huynh and Nguyen [19] but disagrees with Esaku [20]. The coefficient of error correction term (ECT(-1)) is negative and between 0 and 1 as expected. The coefficient of error correction term (-0.8040) suggests

a high speed of adjustment of short-run deviation from long-run equilibrium. This shows that about 80.40% of the short run deviation from long-run equilibrium is corrected yearly. This implies that about 1.24 years (0.8040<sup>-1</sup>) to correct current year deviation from long-run equilibrium. The R square value of 0.8047 implies that the error correction model explains about 80.47% variation in income inequality in Nigeria during the study period. This is corroborated by the highly significant F-statistic which confirms the joint significance of the explanatory variables.

Table 5

ARDL Long-run and ECM Short-run Estimates of the Effects of Corruption and Informality on Income Inequality

Dependent Variable: logINE

Model Selection Criteria: Akaike Information Criteria

Selected Model: ARDL(1, 3, 0, 1)

Case: Unrestricted Constant and No Trend

| Long-run Estimates               |             |                   |             |             |  |  |  |
|----------------------------------|-------------|-------------------|-------------|-------------|--|--|--|
| Variable                         | Coefficient | Standard<br>Error | T-statistic | Probability |  |  |  |
| COR                              | 0.4148      | 0.0982            | 4.2229      | 0.0010      |  |  |  |
| INF                              | 0.0099      | 0.0020            | -4.9288     | 0.0003      |  |  |  |
| INF*COR                          | -0.0062     | 0.0017            | -3.7372     | 0.0025      |  |  |  |
| Error Correction Model estimates |             |                   |             |             |  |  |  |

| Variable     | Coefficient | Standard<br>Error | T-statistic | Probability |
|--------------|-------------|-------------------|-------------|-------------|
| С            | 3.5936      | 0.5331            | 6.7414      | 0.0000      |
| Δ[COR]       | 0.3237      | 0.0542            | 5.9689      | 0.0000      |
| Δ [COR(-1)]  | -0.0164     | 0.0070            | -2.3472     | 0.0354      |
| Δ [COR(-2)]  | -0.0112     | 0.0057            | -2.0483     | 0.0613      |
| Δ[INF * COR] | -0.0055     | 0.0009            | -5.9347     | 0.0000      |
| ECT(-1)      | -0.8040     | 0.1192            | -6.7424     | 0.0000      |
| R SQUARED    | 0.8047      |                   |             |             |
| F-Statistic  | 13.1833     |                   |             | 0.0000      |

Source: Authors' computation using E-view 10 (2022).

# Analysis of the Interaction Effect of Informality and Corruption on Income Inequality in Nigeria

Table 6 presents the analysis of the interaction effect of informality and corruption on income inequality. As shown in Table 5 the long-run and short-run interaction effect of informality and corruption on income inequality is negative. The negative sign of the long-run and short-run coefficient of the interaction of informality and corruption (INF\*COR) means that informality have negative effect on income inequality at lower levels of of corruption. Specifically, as shown in the interaction analysis in Table 6 informality has negative effect on income inequality at corruption levels below the critical level of corruption (COR = -1.60). This implies that corruption in Nigeria during the study period is slightly below the critical corruption level where the interaction effect of informality and corruption on income inequality becomes zero and changes to positive afterwards. The fact that average corruption

control index and maximum corruption control index in Nigeria are (-1.15) and (-0.89) respectively corroborates the fact that Nigeria's corruption level during the study period is below the critical corruption level (-1.60).

As shown in Table 5 the long-run and short-run interaction effects of informality and corruption on income inequality are -0.0062 and -0.0055 respectively. These coefficients implies that an index decrease in corruption control index will reduce the magnitude of the negative (desirable) effect of informality on income inequality by 0.0062 and 0.0055 in the long-run and short-run respectively. For instance, as shown in Table 6, an index decrease in control of corruption from maximum possible value 2.5 to 1.5 in the long run caused the negative effect (desirable effect) of informality on income inequality to reduce from 0.0254 to 0.0192 (by 0.0062) in the long run. The reduction in the negative (desirable) effect of informality on income inequality continues with decreases in corruption control index (worsening corruption) till corruption control index (corruption) reaches its critical level (-1.60) where informality have no effect on income inequality. This implies that informality is only beneficial to income inequality at corruption level below the critical corruption level.

The long-run interaction effect of informality and corruption becomes positive at corruption levels above the critical corruption level. For instance, as shown in Table 6, a 0.5 index increase in control of corruption from minimum possible control of corruption index of -2.5 to -2.0 caused the positive effect (undesirable effect) of informality on income inequality to reduce from 0.0056 to 0.0025 (by 0.0031 = half of 0.0062) in the long run. The reduction in the positive (undesirable) effect of informality on income inequality continues with increases in corruption control index (decreasing corruption) till corruption reaches its critical level (-1.60) where informality have no effect on income inequality. This implies that informality is only detrimental to income inequality at corruption level above the critical corruption level.

Table 6
Analysis of the interaction effect of informality and corruption on Income inequality in Nigeria

| Level of corruption        | Corruption<br>Control<br>Index | $\delta$ logINE/ $\delta$ INF $-$ 0.0099 $-$ 0.0062 $^*$ COR | Remarks   |
|----------------------------|--------------------------------|--|---|
| Lowest                     | ↓ 2.5                          | -0.0099 - 0.0062*2.5 = - 0.0254                              | Negative effect of informality on income inequality.                                  |
| Below<br>Critical<br>Level | ↓ 1.5                          | -0.0099 - 0.0062*1.5 = - 0.0192                              | Reduced negative effect of informality on income inequality by by-0.0062              |
| Critical                   | -1.60                          | -0.0099 - 0.0062*-1.6 =   0.0000                             | Informality has no effect on income inequality.                                       |
| Above<br>Critical<br>Level | ↑-2.00                         | -0.0099 - 0.0062*- 2 =  0.0025                               | Reduced positive effect of informality on income inequality by-0.0031=half of -0.0062 |
| Highest                    | ↑-2.5                          | -0.0099 - 0.0062*-2.5 = 0.0056                               | Positive effect of informality on income inequality.                                  |

Source: Authors' computation.

Note: Critical Corruption level in the long-run is the level of corruption which equates the main effect of informality on income inequality in the long run to interaction effect of informality on income inequality in the long run.

### **4.7 Post Estimation Tests**

F Statistic

Table 7 presents the post estimation test which confirms the reliability of the estimates. The probability of the Jarque-Berra statistic suggests that the residuals are normally distributed since the null hypothesis of normality cannot be rejected at 5% level of significance. The probability values of F-statistic associated with serial correlation langrage multiplier test and Breusch-Pagan-Godfrey heteroscedasticity test confirms absence of serial correlation and heteroscedasticity in the model. Similarly, the probability of the F statistic associated with Ramsey regression specification error test fails to reject the null hypothesis of correct specification. This implies that the estimated model is not mis-specified. Figure 1 presents the result of the cumulative sum (CUSUM) test. The result shows that the CUSUM plot falls within the 5% level of significance lines. This suggests that the coefficients of the error correction model are stable and can be used for policy making purposes.

Table 7

Diagnostics testsTestStatisticProbabilitySerial Correlation LM TestF-Statistic0.46870.7579

F-Statistic 0.4687 0.7579

B-P-G Heteroscedasticity Test

F-Statistic 0.5681 0.7863

Normality Test

Jarque-Bera 1.2228 0.5425

Ramsey RESET Test

Source: Authors' computation using E-view 10 (2022).

0.0922

0.7665

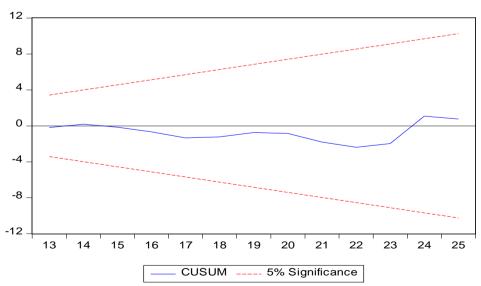


Figure 1. Cumulative Sum Plot.

## 5. Conclusions and Policy Recommendations

Engagement in informal economic activities serves as a survival strategy for the underprivileged majority in developing economies with high level of corruption. This notion implicitly assumes that increased access to informal economic opportunities reduce the severity of income inequality at higher levels of corruption. Given this implicit assumption, it becomes timely and necessary to investigate the mediating effect of corruption on the relationship between informality and income inequality. Consequently, this study investigated the link among informality, corruption and income inequality to ascertain the main and interaction effect of informality and corruption on income distribution in Nigeria from 1996 to 2020.

The long-run and short-run estimate of the ARDL and ECM Models revealed a positive main effect of corruption control (negative main effect of corruption) on income inequality in Nigeria. This unexpected result may be due to the failure of incorporating income redistribution and welfare improvement as the paramount motive for anticorruption effort. However, the ECM model estimate also showed that the negative effect of anticorruption in the current year will reflect in the subsequent year. Policy makers need to create mechanism which ensures that success in anticorruption war translates to redistribution of income from corrupt elite to the masses at the bottom of the income distribution. Specifically, this may be achieved by ensuring that proceeds from anticorruption campaign are channelled to policies and projects which redistribute income to the less privileged.

The long-run estimate of the ARDL-Model revealed a negative main effect of informality on income inequality. This is expected since the underprivileged majority at the bottom of the income distribution ladder earn a living through informal employment. Hence, policy makers need to provide economic environment conducive for the growth, expansion and eventual formalization of informal businesses. The long-run and short-run estimates of the ARDL and ECM models revealed a negative interaction effect of informality and corruption on income inequality. This is not surprising as lower levels of systemic corruption is expected to create conducive socioeconomic environment which increase access of the less privileged to lucrative formal economic opportunities thereby reducing informality and redistributing income to those at the bottom of the income distribution. Consequently, policy makers need to engage in sincere anticorruption campaign targeted at creating conducive socioeconomic conditions which increase the access of the underprivileged to formal economic opportunities. Incorporating creation of conducive socioeconomic environment into anticorruption policies is necessary for reduction of income inequality since reduction of corruption is only a means to an end and not an end in itself.

Overall, the bounds test result; the statistical significance of long run and short run coefficient of the explanatory variables; F statistics and adjusted R square of the error correction model and the statistical significance of the coefficient of error correction term all showed that informality and corruption are important policy variables policy makers that must be taken seriously for short term and long term reduction of income inequality in Nigeria.

#### References

- 1. Mayah E., Mariotti C., Mere C. E. Odo, C. O. *Inequality in Nigeria: Exploring the drivers*. Nigeria: Oxfam International, 2017.
- 2. Pindiga H. I. Nigerian lawmakers top salaries chart. Daily Trust Newspaper. (2013 Jul 22)

- 3. Dincer O.C., Gunalp B. Corruption and income inequality in the United States. *Contemporary Economic Policy*, 2012, *30*(2), pp. 283-292.
- 4. Mishra A. K.., Ray R. (2013). Corruption and informality. *University of Bath Centre for Development Studies*, 2013. *Working Paper*, (21).
- 5. Dwiputri I. N., Arsyad L., Pradiptyo R. (2018). The corruption-income inequality trap: A study of Asian countries, *Economics Discussion Papers*, 2018, No. 2018-81.
- 6. Obiakor T. COVID-19 and the Informal Sector in Nigeria: The Socio-Economic Cost Implications. *Centre for the study of economies in Africa*, 2020.
- 7. United Nation Development Program. *The COVID-19 pandemic in Nigeria: Potential impact of lockdown policies* on poverty and well-being: United Nation Development Program, 2020.
- 8. Gjinovci A. Corruption and the informal economy in transition countries: Case study the analysis of enterprises in Kosovo, Knowledge Horizons Economics, 2013, 5(4), pp. 40-43
- 9. Smith N., Thomas E. Determinants of Russia's informal economy: The impact of corruption and multinational firms. Journal of East-West Business, 2015, 21(2), 102-128.
- 10. Ouédraogo I. M. Governance, corruption, and the informal economy. Modern Economy, 2017, 8(2), pp. 256-271.
- 11. Transparency International. Corruption Perception Index 2021, Transparency International 2022.
- 12. Bonnet F., Vanek J., Chen M. Women and men in the informal economy: A statistical brief. International Labour Office, Geneva, 2019.
- 13. Buehn A., Schneider F. Shadow economies around the world: novel insights, accepted knowledge, and new estimates. International tax and public finance, 2012, 19(1), pp. 139-171.
- 14. Ramlogan-Dobson C. Why is corruption less harmful to income inequality in Latin America? World Development, 2012, 40 (8), pp. 1534-1545.
- 15. Rashid A., Ahmad F., Din S. U., Zaman S. Exploring the relationship between corruption, income inequality and informal sector in developing countries: a panel quintile approach. Journal of and Administrative Sciences, 2021.
- 16. Kar S., Saha S. Corruption, shadow economy and income inequality: evidence from Asia. Institute of Labour Economics, 2012.
- 17. Gupta S., Davoodi H., Alonso-Terme R. Does corruption affect income inequality and poverty? Economics of governance, 2002, 3(1), pp. 23-45.
- 18. Policardo L., Carrera E. J. S. Corruption causes inequality, or is it the other way around? An empirical investigation for a panel of countries. Economic Analysis and Policy, 2018, 5(9), pp. 92-102.
- 19. Huynh C. M., & Nguyen T. L. Shadow economy and income inequality: new empirical evidence from Asian developing countries. Journal of the Asia Pacific Economy, 2020, 25(1), pp. 175-192.
- 20. Esaku S. Does the shadow economy increase income inequality in the short-and long-run? Empirical evidence from Uganda. Cogent Economics & Finance, 2021, 9(1), pp. 1-20.
- 21. Hart K. Informal income opportunities and urban employment in Ghana. The journal of modern African studies, 1973, 11(1), pp. 61-89.
- 22. Sethuraman S. V. The urban informal sector: Concept, measurement and policy. *International Lab. Review*, 1976, *11(4)*, pp. 69.
- 23. Portes A. The informal sector and the world economy: notes on the structure of subsidised labour. *The IDS Bulletin*, 1978, *9*(4), pp. 35-40.
- 24. De Soto H. The informals pose an answer to marx. Washington Quarterly, 1989, 12(1), pp.165.
- 25. Chen M. A. The informal economy: Definitions, theories and policies. *WIEGO working Paper*, 2012, 1(26), pp. 1-22.
- 26. Andres Ar., Ramlogan-Dobson C. Is corruption really bad for inequality? Evidence from Latin America. Journal of Development Studies, 2011, 47(7), pp. 959-76.
- 27. Dobson S., Ramlogan-Dobson C. Is there a trade-off between income inequality and corruption? Evidence from Latin America. *Economics letters*. 107(2), pp.102-4.
- 28. Messy M. A. Threshold effect of corruption on income inequality in sub-saharan Africa. *Journal of Business Studies Quarterly*, 2021, *10*(3), pp. 11-26.
- 29. Tonuchi J. E., Idowu P. How large is the size of Nigeria's informal economy? A MIMIC approach. *International Journal of Economics, Commerce and Management.* 2020, 8(7) pp. 204-228.

#### **APPENDIX**

### Interaction Analysis.

Given the long-run regression equation

$$logINE = 0.4148COR - 0.0099INF - 0.0062INF * COR$$

Then total effect of change in informality (INF) on income inequality (INE) equals the main effect of informality on income inequality plus the interaction effect of informality on income inequality.

$$\frac{\delta logINE}{\delta INF} = -0.0099 - 0.0062COR = 0$$

The critical corruption control index can be obtained from equation  $\boldsymbol{x}$  as

$$COR = \frac{-0.0099}{0.0062} = -1.60$$

The critical corruption control index (COR = -1.60) represents the corruption control index at which the derivative of income inequality with respect to informality changes from positive to negative or vice versa. Specifically, informality have negative effect on income inequality at corruption control levels above the critical corruption control index (COR = -1.60). Conversely, informality have positive effect on income inequality at corruption control levels below the critical corruption control index (COR = -1.60). Using the highest possible value of control of corruption index (2.5) and the lowest possible control of corruption index (-2.5) as the Corruption Control Index above and below critical control of corruption index respectively.

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# THE PHANARIOTE SYSTEM IN MOLDAVIA AND WALLACHIA UNDER THE OTTOMAN RULE

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**Abstract.** Dobruja, Moldavia and Wallachia remained under the Ottoman sovereignty for more than 400 years. Dobruja was inhabited mostly by Turks and Muslims, and was administered by Muslim-Turkish governors assigned directly from the Sublime Porte. However, Wallachia and Moldavia were inhabited overwhelmingly by Christian-Orthodox people and were governed by local voivodes designated by the Ottoman Sultans. These voivodeships were autonomous entities in their internal affairs but were dependent to the Ottoman State in their foreign affairs. Upon the betrayal of the Moldavian prince during the Pruth River campaign of 1710-1711, the Ottoman authorities were compelled to implement the *Phanariote System* which lasted until 1821. Following the abolition of the Phanariote System, the Ottoman authorities returned to the previous method of appointing local princes which, in turn, lasted until the independence of modern Romania. Upon the independence of Romania in 1878, the Ottoman Empire had to switch to a new form of relationship with this newborn state. As a result, these two states resumed their relations through diplomatic means and, in its modern sense, the Turkish-Romanian diplomatic relations were established.

**Keywords:** *Dobruja, Moldavia, Phanariote System, Voivode, Wallachia.* 

Rezumat. Dobrogea, Moldova și Țara Românească au rămas sub suveranitatea otomană mai bine de 400 ani. Dobrogea era locuită în mare parte de turci și musulmani și era administrată de guvernanți musulmani-turci desemnați direct de Sublima Poartă. Cu toate acestea, Țara Românească și Moldova erau locuite în mare parte de creștini-ortodocși și erau guvernate de voievozi locali desemnați de sultanii otomani. Aceste voievodate erau entități autonome în afacerile lor interne, dar erau dependente de statul otoman în afacerile externe. La trădarea prințului moldovean în timpul campaniei pe râul Prut din anii 1710-1711, autoritățile otomane au fost nevoite să instaureze Sistemul fanariot care a durat până în 1821. În urma desființării Sistemului fanariot, autoritățile otomane au revenit la metoda anterioară de numire a prinților locali care a durat până la independența României moderne. Odată cu independența României, în 1878, Imperiul Otoman a trebuit să treacă la o nouă formă de relație cu acest stat. Ca urmare, aceste două state și-au reluat relațiile pe cale diplomatică și, în sensul ei modern, s-au stabilit relațiii diplomatice turco-române.

**Cuvinte-cheie:** Dobrogea, Moldova, Sistemul fanariot, Voivode, Ṭara Românească.

#### Introduction

The first Turkish settlers arrived in the Balkans in the 4<sup>th</sup> century through migrations and wars [1]. Contrary to the first Turkish settlers who inhabited the region temporarily, the Ottoman Empire transformed the Balkans, as a result of its conquest and settlement policies, to a permanent homeland. When the Ottoman Empire started to rule the Dobruja, Wallachia and Moldavia, the Turkish-Romanian relations gained new dimensions in political, administrative and economic terms. Especially within the scope of the settlement policy pursued in Dobruja, the Muslim-Turkish population in this region became dominant and, as a result, the Dobruja region was governed directly by Muslim-Turkish administrators appointed from the capital. On the other hand, Wallachia and Moldavia which were inhabited overwhelmingly by Christian-Orthodox people were administered through the local voivodes (also named as hospodar) [2]<sup>ii</sup> appointed by the Sublime Porte. These two principalities were considered autonomous entities in their internal affairs, but were subject to the Ottoman State in their foreign affairs. This autonomous status of voivodeships continued until the independence of Romania in 1878.

In the first part of this article, the historical background of the Ottoman rule in Dobruja, Wallachia and Moldavia will be explained and, in this context, their different administrative status will be assessed. In the second part, the transition to the Phanariote System in Moldavia and Wallachia, and subsequently the dissolution of the Phanariote System in the principalities will be explored. Ottoman archive sources on Moldavia and Wallachia are primarily utilized within the framework of this study. This article aims to bring clarity to the relation between the Phanariote System and the Turkification process of the Ottoman foreign bureaucracy.

## The Status of Dobruja, Wallachia and Moldovia Under the Ottoman rule

The Ottomans granted different administrative status to communities with different ethnic and religious identities and developed a flexible administrative management mechanism. Dobruja, inhabited mostly by Muslim-Turks, was directly attached to the capital and Muslim governors were assigned to Dobruja by the Sublime Porte. On the other hand, Wallachia and Moldavia which were densely populated by Christian-Orthodox people were governed as autonomous principalities. Local boyars, [3]<sup>iii</sup> native Christian-Orthodox nobles, were appointed by the Sublime Porte as rulers to these principalities. Within the framework of this autonomous status, Wallachia and Moldavia were free in their internal affairs but dependent in their foreign affairs. These voivodeships appear as autonomous units that collectively pay taxes to the Ottoman Empire and contribute to the Ottoman army in wartimes.

## Dobruja: A Region Directly Attached to the Sublime Porte

Dobruja [4]iv has been strategically an important region throughout the history. The shortest land route from Rumelia to the steppes of Ukraine and Russia, as well as from Russia and Ukraine to Rumelia, and therefore to Istanbul, passes through Dobruja [5]. The Ottomans utilized this strategic region in their expeditions to Poland and Russia, and also for their cooperation with the Crimean Khanate. The Dobruja region served also as a buffer zone for the Ottoman Empire against the European powers and Russia. Dobruja passed to the Ottoman rule in 1394 during the reign of Yıldırım Beyazıt [6].vi After the conquest of Dobruja, Yıldırım Beyazıt brought the nomad Turks (Yoruk) from Anatolia and the Tatars from the north of the Black Sea, and settled them in the region. These settlement processes were pursued during

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the reign of Beyazıt II and Yavuz Sultan Selim as well [7]. As a matter of fact, the most intensive Ottoman settlement activities in the Balkans were implemented in the Dobruja region [8]. The Dervishes (Muslim clerics), forefront military groups (Akıncılar) and nomadic Turks were the main settler groups. In addition to these groups, the tribes that caused trouble in various parts of Anatolia were also exiled to and resettled in this region. Accordingly, the Muslim-Turkish population in Dobruja had increased and become dominant. The censuses conducted in the 19th century reveals that most of the villages in Dobruja and Deliorman, especially in the northeast of the Balkans, had Turkish names [9]ix and their populations were predominantly composed of Muslims [10].

The Dobruja region was directly attached to the mainland and was administered by Muslim governors appointed from the Sublime Porte. The military and civil administrative structures were organized in line with the Ottoman mainland's system. As a result of this, Ottoman cadastral registers were kept and judges (*kadi*) were assigned to solve judicial problems among Muslims. In 1850, Dobruja was composed of Silistra and Varna *sandjaks* [11]xi: whereas Tulça, Isakca, Maçin and Hırşova were attached to Silistra *sandjak*; Babadag, Constanta and Mangalya were attached to Varna *sandjak*. With the adoption of the Tuna (Danube) Provincial Regulation in 1864, [12]xii the Tuna prefecture [13]xiii was established and Tulça was upgraded to the level of county [14].xiv According to this new administrative arrangement, Babadag, Kili, Hırşova, Isakça, Constanta, [15]xv Maçin, Mahmudiye, Mangalya, Mecidiye and Sunne towns were attached to the new Tulça county. As seen, under the Ottoman rule, the Dobruja region was treated directly within the Ottoman administrative structure and maintained this status until the loss of this territory by the Ottoman State [16].xvi

## Muslim and Non-Muslim Population According to Tuna Prefecture Yearbook 1290 (1873)

|          |                          |                     | Muslim     |       |                     | Non-Muslim |       |                     | Total      |  |
|----------|--------------------------|---------------------|------------|-------|---------------------|------------|-------|---------------------|------------|--|
| County   | Number<br>of<br>Villages | Number<br>of Houses | Population | %     | Number<br>of Houses | Population | %     | Number<br>of Houses | Population |  |
| Silistre | 235                      | 7.425               | 21.935     | 64.77 | 3.377               | 11.933     | 35.23 | 10.802              | 33.868     |  |
| Varna    | 411                      | 21.566              | 45.553     | 73.06 | 4.689               | 16.801     | 26.94 | 26.255              | 62.354     |  |
| Tulça    | 272                      | 17.405              | 56.724     | 56.23 | 11.599              | 44.147     | 43.77 | 29.004              | 100.871    |  |

Source: Salnâme-i Vilâyet-i Tuna, Defa 6, Year 1290, Matbaa-i Vilâyet-i Tuna, p. 106-309.

### Wallachia and Moldavia: Autonomous Principalities in the Ottoman Empire

The first encounter between the Ottoman and the Wallachian forces dates back to 1368 [17],xvii to the siege of Vidin. During this siege, Voivode Vlaicu was fighting for the Hungarian King Lajos against the Ottomans. Following this encounter, Vlaicu realized the gravity of the Ottoman progress in the Balkans and decided to sign an agreement with Murat I in 1373. This agreement between the Ottomans and Wallachia remained in force until Voivode Mircea's accession to power in 1386. Mircea initiated a struggle against the Ottoman armies but was soon defeated. The Ottomans imposed a tax on Wallachia in order to punish Mircea. Thus, Wallachia accepted to pay tax to the Ottomans for the first time in 1391 during the reign of Mircea and was obliged to recognize the Ottoman supremacy [18].xviii After Mircea, the Wallachian voivodes took advantage of the struggles between the Hungarians and the Turks. With the Treaty of Segedin (1444), they opted for a dual policy: economic subordination to the Ottoman Sultan through payment of tax on the one hand, and political

subordination to the Hungarian king on the other hand [19].xix However, within the time, some prominent boyars whose interests were harmed started to advocate for political subordination to the Ottoman Empire and in this regard challenged voivode Vlad Tepeş. Tepeş defeated the boyars and achieved to establish a centralized administration in Wallachia between 1456-1462. He did not shy away from waging a struggle against the Ottoman forces. Mehmed II, the Conqueror of Istanbul, commissioned Hamza Bey, the Governor of Niğbolu, to capture Vlad Tepeş. Wallachian forces killed the Ottoman governor, then crossed the Danube and massacred the Muslims in the Dobruja region. Thereupon, Mehmed II decided to organize a vast military campaign against Tepeş in 1462. Tepeş had to withdraw to Transylvania and was imprisoned there by the Hungarian king. Subsequently, the Ottoman Empire brought his brother Radu (1462-1474) to the voivodeship of Wallachia [20].xx

With respect to the Moldavia, the first encounter between the Ottoman and Moldavian forces took place during the reign of Çelebi Mehmed (1413-1421). He besieged Akkerman in 1420 but failed to seize the city. During the reign of Sultan Mehmed II, as of 1456, Moldavia accepted to pay tax to the Ottoman Empire, like Wallachia [21].xi Later, Stefan çel Mare (Great Stefan) [22],xii the Moldavian voivode, refused to pay tax and defeated the Ottoman forces under the command of Hadım Süleyman Pasha in 1475 in the Racova region. Subsequently, Mehmed II ordered a military expedition to Moldavia in 1476. The Ottoman army defeated the Moldavian troops in Akdere (Valea Alba) and entered Suceava, the center of the principality, but could not seize its castle. During the reign of Beyazıt II, the Ottoman forces captured Kili and Akkerman in 1484. Thus, Moldavia was definitely subordinated to the Ottoman Empire. In addition to this, with the conquest of Hungary by the Ottoman Empire in 1526, the Hungarian sovereignty claims over Wallachia and Moldavia were invalidated, and the Ottoman rule over these principalities had been further strengthened.

Populated largely by Christian-Orthodox people, the principalities of Wallachia and Moldavia, named also as "Memleketeyn" [23],\*\*xiii were granted autonomous status within the Ottoman Empire. Unlike Temeşvar, Budin, Aegean Islands and Bosnia, these two principalities were not ruled by Muslim administrators appointed from the Sublime Porte [24].\*\*xiiv Instead, they were ruled by voivodes who shared the same faith and ethnicity with the local people. The Ottoman Empire did not directly intervene in the internal affairs of Wallachia and Moldavia, did not pursue a settlement policy towards these two voivodeships, did not try to Islamize its people, and did not allow Turks to buy land and build mosques in these territories [25].\*\*xiv In return for this autonomous status [26],\*\*xiv the voivodes of Wallachia and Moldavia agreed to regularly pay taxes to the Ottoman Empire, to grant commercial concessions, to supply basic agricultural products and to provide military support in time of war [27].\*\*xiii

The voivodes were kept in their positions as long as they preserved their loyalty to the Ottoman State and paid their taxes regularly. After the decease of a voivode, mostly his son or his brother was appointed to replace him [28].\*\*xviii\* The Ottoman State developed also a hostage mechanism within the scope of the voivode nominations. Accordingly, those who were appointed as voivodes left their sons or close relatives as hostages to the Ottoman palace [29].\*\*xix\* This mechanism was developed as a precautionary method to prevent the probable treason attempts of voivodes. Although the Ottoman Empire resorted to such measures in order to thwart the betrayal of voivodes, the increasing influence of Russia and the changes in the regional power balances pushed the voivodes to seek new alliances. When the Wallachian and Moldavian princes collaborated with the Russians in the Pruth campaign

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of 1710-1711, the Ottoman authorities decided to revise the nomination procedure of the voivodes.

## The Phanariote System: the Assignment of Ottoman Officers with Orthodox-Greek Origins Instead of the Local Princes

The Ottoman Empire, for almost three centuries, pursued the policy of designating local princes to administrate Wallachia and Moldavia. This policy was in compliance not only with its multi-cultural and multi-national structure but also with its traditional tendency to recognize an autonomous status to the communities which adhere to different religions and ethnicities. However, the Ottoman authorities were compelled to amend this policy and invent a new system to administrate these two principalities.

The Ottoman authorities' trust in the local princes was deeply shaken when it was revealed that the Wallachian and the Moldavian voivodes had collaborated with the Russians during the Pruth War. Due to the betrayal of local princes, the Ottoman State developed a new method of nomination for these principalities, which would be called later the "Phanariote System". In this new system, the Greeks of Phanar (a district of Istanbul and historical center of the Orthodox Patriarchate) were assigned as administrators to Wallachia and Moldavia. The Ottoman authorities opted for this new system because the Ottoman subjects of Phanar were being employed for a long time as dragomans (translator) in the bureaucracy and therefore they were deemed reliable and loyal officers to the state. In addition to this, the Greeks of Phanar [30]\*\*\* shared the same religion and sect with the people of Wallachia and Moldavia. This aspect also played a crucial role in the adoption and implementation of this new assignment system.

## **Transition to the Phanariote System**

The Moldavian voivode Dimitrie Cantemir [31]\*\*xxxi\* who collaborated with Russians against the Ottomans during the Pruth War sought refuge in Russia. After this incident, the Ottoman authorities were aware that they could no longer trust in local princes. The Ottoman State deemed it an urgent necessity to take measures against the possible betrayal of local princes and sought an alternative solution to designate the successor of the Moldavian voivode. In this context, the Ottoman capital appointed loan Mavrocordat, the Phanariote Greek translator of the *Divan-ı Hümayun* (Ottoman Council of Ministers), as voivode to Moldavia in 1710. Mavrocordat was urgently dispatched to the city of lasi in accordance with the Sultan's *ferman* (imperial edict), and thus the Moldavian principality had begun to be administered by the aforementioned Phanariote Greek officer [32].\*\*xxiii After Ioan Mavrocordat's temporary assignment, his elder brother Nicolae Mavrocordat was permanently assigned to Moldavia. The Phanariote system, which the Ottoman Empire considered more reliable and trustworthy, was thus in the process of institutionalization in Moldavia as of 1711 [33, 34].\*\*xxiii

After Cantemir's treason, the Ottoman authorities were suspicious about the loyalty of the Wallachian voivode Constantin Brancoveanu as well. But, as they were not fully convinced yet on Brancoveanu's disloyalty, they preferred to closely watch his acts. In 1714, when it was finally revealed that he was colluding with the Russians, he was removed from office. He was arrested and brought to Istanbul with his four sons. They were executed in Istanbul in the same year [35, 36].xxxiv Mirahor Mehmed Ağa who was ordered to execute the sentence of Brancoveanu was given a *ferman* to appoint a voivode on site. In the imperial edict, the name of the voivode was left blank and Mirahor Mehmed Ağa was granted the authorization to

designate the person he deemed appropriate. Thereupon, he appointed Stefan Cantacuzen, a member of a reputable local family of Wallachia, as the new voivode. The imperial edict also ordered that the properties, money and other belongings of the executed prince and his sons be fully recorded by Mirahor Mehmed Ağa and be used appropriately for the needs of the Wallachian country and its people [37].xxxv The new voivode Stefan Cantacuzen also collaborated against the Ottomans, with the Habsburg. Therefore, he was dismissed from his post on 30 December 1715 and executed in Istanbul in June 1716. Nicolae Mavrocordat was assigned to replace Cantacuzen [38].xxxvi With this nomination, the Phanariote system was institutionalized in Wallachia as well. The method of designating the Phanariotes as administrators to Wallachia and Moldavia lasted for 110 years, until 1821.

## **Dissolution of the Phanariote System**

As of 1750s and afterwards, the Phanariote Greek rulers of Wallachia and Moldavia, in cooperation with the Phanar Greek Patriarchate, sought to revive Byzantium, and in this respect, tried to spread Greek and neo-Byzantine nationalism. The political, intellectual and economic environment of the Phanariote-led principalities constituted an ideal atmosphere for the dissemination of these ideas [39].xxxvii Although the Ottoman Empire tried to take various measures against these nationalist activities, its influence remained limited due to the interventions of Russia. With the conclusion of the Küçük Kaynarca (today a town in Bulgaria) Treaty in 1774, the Ottoman Empire accepted to consult the Russians with regard to the nomination of voivodes to Wallachia and Moldavia. The Russian Tsardom received also the right to open consulates in the principalities and to conduct free trade with them. The Ottomans were troubled with the Russian interference to the principalities. During the 19th century, Russia continued to expand and further consolidate its sphere of influence in the region. Upon the shifts in the regional power equilibrium and the Pan-Slavist policies pursued by Russia, the Phanariote rulers became more prone to collaborate with the Russians. In August 1806, when the Ottoman authorities decided to dismiss pro-Russian Phanariote rulers Alexandre Mourouzi (in some texts Mouzuri) and Constantin Ipsilanti (in some texts Ypsilanti) [40], xxxviii respectively rulers of Wallachia and Moldavia, Russia immediately displayed its firm reaction to these revocations. Upon the pressure and war menace of Russians, the Ottoman State was compelled to reinstate Mourouzi and Ipsilanti [41].xxxix Despite their reinstatement, Russia launched a surprise attack [42, 43]<sup>xl</sup> against the Ottoman Empire in November 1806. The Russian troops crossed the Dniester River and occupied Wallachia and Moldavia [44].xli The Ottoman-Russian war (1806-1812) which lasted for six years ended with the signing of the Bucharest Treaty in 1812. According to this treaty, Akkerman, Kili and Bender which were located in the eastern part of Moldavia were left to Russia, in return for ending its occupation in Wallachia and Moldavia [45].xlii

Nevertheless, Russia continued to be influential on the Phanariote Greek rulers and to abuse the Orthodox population in Wallachia and Moldavia as an alibi to intervene in the internal affairs of the Ottoman Empire. The latter which lacked the required capacity to control effectively the principalities assessed that the Phanariote system should be dissolved definitively [46].xliv The uprising led by Tudor Vladimirescu [47]xliv against the Phanariote rulers in 1821 was considered an opportunity to put an end to the Phanariote era [48].xlv Thus, the Phanariote system was eventually dissolved and the previous method, more precisely the designation of local princes, was revitalized [49].xlvi The Phanariote system which was initiated during the reign of Ahmet III was abolished in 1821, during the reign of Mahmut II.

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On the other hand, it should be noted that the Greek revolt which started in the Peloponnese peninsula in the same year was also determinant on the decision of the Ottoman authorities because the Phanariote rulers in Wallachia and Moldavia were striving for the independence of Greece and supporting the Greek nationalist movements. Upon these evolutions, apart from the dissolution of the Phanariote order, the Greeks were also deposed from the dragoman duties. In 1821, a separate and new translation office, composed of Muslim-Turks, was established for the Sublime Porte. Yahya Naci Efendi, professor at Mühendishane-i Hümayun (Imperial Engineering School), and his son Ruhiddin Efendi were assigned as directors to this new translation office [50].xivii They were entrusted with the task to manage and reorganize the translation office which would be the nucleus of the Ministry of Foreign Affairs in the future. As a result, the dissolution of the Phanariote system accelerated the Islamization and Turkification process of the Ottoman foreign affairs bureaucracy [51, 52].xiviii

#### **Conclusions**

Wallachia and Moldavia, the two principalities which were granted autonomous status under the Ottoman rule, were initially governed by local Orthodox voivodes. However, when it was revealed that the local voivodes had collaborated with the Russians during the Pruth War, the Ottoman authorities decided to appoint Phanariote Greeks to replace them. The Greeks of Phanar had been employed for long time as dragomans in the Ottoman bureaucracy. In that sense, they were considered reliable and loyal Ottoman subjects. Besides this, they were Christian-Orthodox and shared the same faith with the local people of Wallachia and Moldavia. Thus, as of 1711 in Moldavia and as of 1715 in Wallachia, the Phanariote era began in the *Memleketeyn*.

However, in the 1750s, the Phanariote Greek rulers started to support the Greek nationalist movements and to finance Greek revolutionary activities in the Ottoman lands. They also sought covert alliances with the Russian Tsardom which was becoming more influential in the region. With the conclusion of the Küçük Kaynarca Treaty in 1774, Russia became an important factor in the process of the nomination of the Phanariote Greeks to Wallachia and Moldavia. The Russian interference on the issue was further consolidated with the Bucharest Treaty of 1812. Finally, the Ottoman authorities were compelled to reconsider the Phanariote system. The Ottoman State abondoned the Phanariote system in 1821 and returned to the policy of appointing local princes.

Both under the rule of local princes and the Phanariote Greeks, Wallachia and Moldavia maintained their autonomous status. They were free in their internal affairs but dependent on the Ottoman Empire in their foreign relations. During these two consecutive periods, the relationship between the Ottoman State and the principalities was characterized by the subordination of the latter. Therefore, it is not possible to qualify this relationship as a diplomatic relation in its modern sense.

On the other hand, the Phanariote System had crucial consequences on the Ottoman foreign affairs bureaucracy in long term. The collaboration of Phanariotes with the Russians demonstrated to the Ottoman authorities the importance of having Muslim-Turkish officers in the foreign affairs bureaucracy. Upon the dissolution of the Phanariote System and the Greek revolt of 1821, a new translation office was founded for the Sublime Porte. This new translation office was managed by Muslim-Turks and its employees were mainly Muslim-Turks. Thus, the Phanariote System triggered the Turkification of the Ottoman foreign affairs bureaucracy.

#### References

- 1. ¹. In 375 A.D., the Huns crossed the Don River and captured the lower Danube basin. Thus, for the first time in history, a Turkish tribe settled on the territory of the Roman Empire. Although the Hun Empire was dissolved after Attila's death, the Hun presence in Romanian territories continued. After the Huns, the Avars became influential in these lands and their activities in the region lasted for 250 years. See. GEMİL, T. Turkic Presence on the Romanian Territory Before The Ottomans. Ed.: Gemil, Tasin and Pienaru, Nagy. In: Moştenirea Istorică A Tătarilor, Editura Academiei Române, Bucharest, 2012, pp. 27-29.
  - In 1048, the Pechenegs settled in Northern Dobruja. In the following years, the Uz (Oghuz) Turks and, at the beginning of the XII. century, Cuman, Kipchak and some other Turkish tribes arrived to Dobruja. With the aid of Cumans, the Byzantine Empire defeated the Pechenegs in 1091 and opened its borders to its new ally, the Cumans. This Turkish tribe advanced to the south of the Balkans and accepted Orthodox Christianity under the influence of the Byzantine church. The second Bulgarian state, founded by the Cumans in 1186, continued to exist until the Mongol invasion of Dobruja in 1241. The transition of the Seldjuki Turks to the Balkans and Dobruja took place in this period. When Sultan Izzeddin Keykavus II was defeated by the Mongols, he took refuge with his companions in the Byzantine Empire in 1263. Emperor Mihail Paleologos VIII settled Keykavus and his entourage in the Northern Dobruja, on the Western Black Sea coast. These Turks who were settled in Dobruja converted to Christianity due to the Byzantium pressure. When the Ottomans arrived in the Rumelia, they encountered Cuman, Pecheneg and Oghuz Turks. These Turkish communities played an important role in the progress of the Ottomans in the Rumelia and the Balkans. See. BOZKURT, G. S. Geçmişten Günümüze Romanya'da Türk Varlığı [Turkish Presence in Romania from the past until today]. In: *Karadeniz Araştırmaları Dergisi*, 2008, V. 5, Issue 17, Ankara, pp. 14-15.
  - <sup>1</sup>. *Voivode* is originally a Slavic word. It is derived from the combination of the words *voin* (soldier) and *vodac* (leader). It is observed that between 15<sup>th</sup> and 19<sup>th</sup> centuries the word *hospodar* is also used as a title in Slavic documents for the Moldavian and Wallachian rulers. See. ÇİFTÇİ, C. Bab-ı Ali'nin Avrupa'ya Çevrilmiş İki Gözü: Eflak ve Boğdan'da Fenerli Voyvodalar (1711-1821) [The Sublime Porte's Two Eyes Fixed over Europe: Phanariote Voivodes (Principalities) in Wallachia and Moldavia (1711-1821)]. *Uluslararası İlişkiler*, 2010, Vol. 7, Issue 26, Ankara, p. 28.
  - Hospodar is defined in Merriam Webster dictionary as "A governor of Moldavia and Wallachia under Turkish rule". Available at https://www.merriam-webster.com/dictionary/hospodar [Accessed: 21.02.2022]. In Collins dictionary, "(formerly) the governor or prince of Moldavia or Wallachia under Ottoman rule". Available at https://www.collinsdictionary.com/dictionary/English/hospodar [Accessed: 21.02.2022].
- 2. <sup>1</sup>. *Boyar* is a title used for large landowners and nobles in the Danube region, Transylvania and Russia. Available at https://sozluk.gov.tr [Accessed: 15.02.2022].
- 3. ¹. Dobruja is surrounded by the Danube in the west and north, by the Black Sea in the east and by Deliorman in the south. Today, the northern Dobruja remains within the borders of Romania while the southern Dobruja remains within the borders of Bulgaria. During the Ottoman period, the Dobruja region was an important food supplier for Istanbul. It met a significant part of Istanbul's grain needs, especially wheat. Large granaries were built in many port cities on the Black Sea coast of Dobruja. Timber, salt, felt and slaves were shipped to Istanbul from the ports of Silistra, Tulça, Isakça, Maçin and Hırsova. See. DOĞRU, H. Osmanlı Devleti'nin Rumeli'de Fetih ve İskan Siyaseti [Conquest and Resettlement Policy of the Ottoman State in Rumelia]. In: TÜRKLER, 2002, Ed.: Hasan Celal Güzel, Kemal Çiçek, Salim Koca, Vol. 9, Yeni Türkiye Yayınları, Ankara, p. 303.
- 4. <sup>1</sup>. Ottoman forces which advanced to the west, northwest and northeast through the Balkans took the advantage of the roads built by the Romans and later used by the Byzantium. These roads were known as the Left Arm (Via Egnatia-Canib-i yesar), the Middle Arm (Via Militaris-Tarik-i evsat) and the Right Arm (Crimea-Black Sea trade route). See. Ibid., p. 303.
- 5. ¹. The Ottomans lost the control of Dobruja in 1402 but Sultan Mehmet I regained the control of the region in 1418.
- 6. ¹. Gökbilgin T. *Rumeli'de Yörükler, Tatarlar ve Evlad-ı Fatihan* [Yörüks (Nomades), Tartars and Descendants of Conqureors in Rumalia]. İstanbul: Osman Yalçın Matbaası, 1957, pp. 13-16.
- 7. ¹. Doğru H. Osmanlı Devleti'nin Rumeli'de Fetih ve İskan Siyaseti [Conquest and Resettlement Policy of the Ottoman State in Rumelia]. In: *TÜRKLER*, 2002, Ed.: Hasan Celal Güzel, Kemal Çiçek, Salim Koca, Vol. 9, Yeni Türkiye Yayınları, Ankara, p. 310.

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8. ¹. Some villages, towns in the region still bear Turkish names. Turkish architectural structures which date back to the Ottoman period still preserve their existence. For more information, see. COMAN, V., YENİKALE, A. *Osmanlı Kartografya Kaynaklarında Dobruca (XVI.-XIX y.y.)* [Dobruja in the Ottoman Cartographic Sources (XVI-XIX centuries)]. Bucharest: Etnologica, 2015.

- 9. ¹. Doğru H. Osmanlı Devleti'nin Rumeli'de Fetih ve İskan Siyaseti [Conquest and Resettlement Policy of the Ottoman State in Rumelia]. In: *TÜRKLER*, 2002, Ed.: Hasan Celal Güzel, Kemal Çiçek, Salim Koca, Vol. 9, Yeni Türkiye Yayınları, Ankara, pp. 311-313.
- 10.¹. Prior to the adoption of the Tuna (Danube) Provincial Regulation in 1864, federative state system (Eyalet sistemi) was used in the administrative structure of the Ottoman Empire. In this system, *sandjak* is comparable to a sort of province.
- 11.¹. Through the adoption of the Provincial Regulation in 1864, Province (Vilayet), County (Sancak/Liva), Town (Kaza) and Village (Nahiye) were classified as the main administrative units in the Ottoman Empire. In 1871, these units were re-organized as Province (Vilayet), County (Liva), Town (Kaza), small town (Nahiye) and Village (Köy). This administrative reform was largely inspired from the French administrative system. For further information, see. TORAMAN, Ö. *Osmanlı Taşra Teşkilatında Yenilikler (1826-1876)*. [Novelties in the Ottoman Provincial Organization (1826-1876)]. Master Thesis, Dicle Üniversitesi, Sosyal Bilimler Enstitüsü, Kamu Hukuku Anabilim Dalı, Diyarbakır, 2002.
- 12.1. Niş (today in Serbia), Silistra and Vidin (today both in Bulgaria) States (Eyalet) were united as a single administrative unit under the Tuna prefecture with the adoption of the Provincial Regulation of 1864.
- 13.<sup>1</sup>. Koyuncu A. Tuna Vilâyeti'nde Nüfus ve Demografi (1864-1877) [Population and Demography in the Tuna Prefecture (1864-1877)]. In: *Turkish Studies International Periodical for the Languages, Literature and History of Turkish or Turkic,* 2014, Volume 9/4, Ankara, p. 677.
- 14.¹. As Constanta was becoming a hub in terms of maritime trade, its population tended to increase. The Ottoman Empire started in 1857 the construction of a railway between Cernavoda and Constanta on the Danube, and this railway was completed in 1860. In addition to this, the port of Constanta was expanded, a lighthouse and nearly 400 new houses were built during this period. In 1864, the town of Constanta was attached to the Tulça county. See. MURGESCU, B. "Köstence". [Constanta]. In: *Türkiye Diyanet Vakfı İslam Ansiklopedisi*, 2002, Vol. 26, İstanbul, pp. 276-277. The developments in Constanta have drawn the attention of the leading foreign powers as well. Some countries asked permission to open consulates in this city. In this context, the Ottoman Empire granted permissions to Austria-Hungary, England, France, Germany, Italy and Russia to open consulate in Constanta. See. IBRAM, N. *Dobruca'daki Müslüman Topluluğu Manevi Hayatından Sayfalar* [Pages from the Spiritual Life of the Muslim Community in Dobruja]. (Trans: Belghiuzar Cartali Bulıqa, Namık Kemal Yıldız), Constanta: Ex Ponto, 1999, p. 31.
- 15.¹. Dobruja remained under the Turkish rule for about 460 years and became a Turkish homeland. It was lost with the 1877-1878 Ottoman-Russian war. Turkish presence in the Balkans and in the Rumelia suffered a great shock due to the massacres of the Russian and Bulgarians troops. Consequently, Turkish population in the Balkans diminished and the Turks became minority in the region. See. ÖNAL, M. N. Romanya Türklerine Bakış [Glance to Turks of Romania]. In: *Türk Dünyası Araştırmaları*, 1994, Issue 93, İstanbul, p. 180.
- 16.¹. Some historians claim that the first encounter between the Ottoman and the Wallachian forces took place in the Battle of Sırpsındığı in 1364, during the reign of Murat I. For detailed information, See. SARĞIN, Y. Başlangıcından 1606'ya Kadar Osmanlı Devleti İle Eflak ve Boğdan Voyvodalıkları Arasındaki İlişkiler [The Relations between the Ottoman State and Wallachia and Moldavia from the beginning to 1606]. Master Thesis, Afyon Kocatepe Üniversitesi, Sosyal Bilimler Enstitüsü, 2013, pp. 5-6.
- 17.¹. Yalçınkaya M. A. Osmanlı Döneminde Eflak ve Boğdan (Memleketeyn) [Wallachia and Moldavia in the Ottoman Period]. In: *Balkanlar El Kitabı*, 2006, Vol. 1, Ed.: Osman Karatay Bilgehan A. Gökdağ, Karam Vadi Yay., Ankara, p. 386.
- 18.1. Karpat K. "Eflak" [Wallachia]. In: Türkiye Diyanet Vakfı İslam Ansiklopedisi, 1994, Vol.10, İstanbul, p. 468.
- 19.¹. Türkal M. K. 18. Yüzyılın İlk Yarısında Eflak ve Boğdan Üzerinde Osmanlı-Avusturya Mücadelesine Dair Anonim Bir Eser: Vakayi-i Eflak [An Anonymous Work About Ottoman-Austria Controversy Relating to Wallachia and Moldavia in the First Part of 18th Century: Vakayi-i Eflak]. In: *Turkish Studies, International Periodical for the Languages, Literature and History of Turkish or Turkic,* 2017, Vol. 12/9, Ankara, pp. 39-40.
- 20.¹. Sarğın Y. *Başlangıcından 1606'ya Kadar Osmanlı Devleti İle Eflak ve Boğdan Voyvodalıkları Arasındaki İlişkiler* [The Relations between the Ottoman State and Wallachia and Moldavia from the beginning to 1606]. Master Thesis, Afyon Kocatepe Üniversitesi, Sosyal Bilimler Enstitüsü, 2013, p. 46.

- 21.¹. Voivode Stefan was granted the title of "The Wrestler of Jesus" by the Pope because of his success against the Ottomans. See. ÖZCAN, A. "Boğdan" [Moldavia]. In: *Türkiye Diyanet Vakfı İslam Ansiklopedisi*, 1994, Vol. 6, İstanbul, p. 270.
- 22.1. The Ottomans named Wallachia and Moldavia as "Memleketeyn", which means "The two countries".
- 23.¹. Sözen Z. Osmanlı Kültürünün Eflak ve Boğdan'ın Yaşamına Etkisi [The Influence of the Ottoman Culture on Wallachia and Moldavia]. In: *TÜRKLER*, 2002, Ed.: Hasan Cemal Güzel, Kemal Çiçek, Salim Koca, Vol. 12, Yeni Türkiye Yay., Ankara, p. 16.
- 24.<sup>1</sup>. Papp S. Eflak ve Boğdan Voyvodalarının Ahidnameleri Üzerine Bir İnceleme: Osmanlı İmparatorluğu'nun Kuzeybatı Hududundaki Hıristiyan Vassal Ülkeleri [An Analysis on the Covenant of Wallachia and Moldavia Voivodes: Christian Vassal Countries on the North-West Border of the Ottoman Empire]. In: *TÜRKLER*, 2002, Ed.: Hasan Cemal Güzel, Kemal Çiçek, Salim Koca, Vol. 10, Yeni Türkiye Yay., Ankara, p. 1382.
- 25.¹. This autonomous status was expressed in the Ottoman official documents as "mefrûz ül-kalem ve maktû ül-kadem, min küll il-vücuh serbest". See. Başbakanlık Osmanlı Arşivi (BOA) [Ottoman Archives of the Prime Ministry]. Düvel-i Ecnebiye Defterleri, No:77/1, Romanya Eflak Defteri: 103.
- 26. "Mefrûz ül-kalem" means that the principalities were not included in the land registry records of the Ottoman State, and in this sense, Ottoman title deeds were not used in the principalities.
- 27. "Maktû ül-kadem" means that the taxes were paid collectively by each principality. The Ottoman State did not collect tax from individuals.
- 28. "Min küll il-vücuh serbest" means that the principalities were free in their internal affairs. Ottoman officials such as judge, tax collector, treasurer or governor were not assigned to these lands.
- 29. <sup>1</sup>. Sözen Z. Osmanlı Kültürünün Eflak ve Boğdan'ın Yaşamına Etkisi [The Influence of the Ottoman Culture on Wallachia and Moldavia]. In: *TÜRKLER*, 2002, Ed.: Hasan Cemal Güzel, Kemal Çiçek, Salim Koca, Vol. 12, Yeni Türkiye Yay., Ankara, p. 15.
- 30.1. For a detailed list including the names of voivodes in Wallachia between 1215-1862 and their terms of office, see. AYDIN, M. Eflak Beyliği [Principality of Wallachia]. In: *Güney-Doğu Avrupa Araştırmaları Dergisi*, 2013, Issue 23, İstanbul, p. 17-18.
- 31.¹. French traveler Brocquiere who accompanied the Milan envoy was granted an audience to the Divan of Murat II. Brocquiere recounts that approximately twenty Wallachian nobles (hostages) were present at the ceremony in Sultan's palace. See. SARĞIN, Y. Başlangıcından 1606'ya Kadar Osmanlı Devleti İle Eflak ve Boğdan Voyvodalıkları Arasındaki İlişkiler [The Relations between the Ottoman State and Wallachia and Moldavia from the beginning to 1606]. Master Thesis, Afyon Kocatepe Üniversitesi, Sosyal Bilimler Enstitüsü, 2013, p. 49.
- 32.1. The term of "Phanariote Greeks" was mainly used for wealthy Orthodox Greeks residing in the Phanar district of Istanbul. Besides them, Romanian, Albanian or Italian nobles of Phanar were also named as Phanariote. See. SÖZEN, Z. Fenerli Beyler, 110 Yılın Öyküsü (1711-1821) [Beys of Phanar, History of 110 Years (1711-1821)]. Istanbul: Aybay Yayınları, 2000, p. 7. Although all of them were not Greek in terms of ethnic origin, they were called Greeks of Phanar because they spoke Greek among themselves and created a unique Greek culture. See. ÇİFTÇİ, C. Bab-ı Ali'nin Avrupa'ya Çevrilmiş İki Gözü: Eflak ve Boğdan'da Fenerli Voyvodalar (1711-1821) [The Sublime Porte's Two Eyes Fixed over Europe: Phanariote Voivodes (Principalities) in Wallachia and Moldavia (1711-1821)]. Uluslararası İlişkiler, 2010, Vol. 7, Issue 26, Ankara, p. 32. Indeed, the Phanariotes constituted a privileged non-Muslim community in the Ottoman society. They were educated and wealthy people, connected to the outside world, but also an introverted minority, adjacent to the Muslim-Turks who constituted the ethnic and religious majority. See. JORGA, N. Osmanlı İmparatorluğu Tarihi (1640-1774) [History of the Ottoman Empire (1640-1774)]. Vol. 4, Transl: Nilüfer Epçeli, İstanbul: Yeditepe Yayınevi, 2009, p. 304. As a privileged minority in the Ottoman Empire, the Phanariote Greeks served as officers and translators in the Ottoman bureaucracy. They were appointed to high-level positions such as the voivodeships of Wallachia and Moldavia, to the governorship of Crete and Samos. The Greeks of Phanar, who made their fortunes mostly from trade, shipping and banking, continued to take an active role in the Ottoman bureaucracy until the Greek revolt of 1821. See. CİFTÇİ, C. Bab-ı Ali'nin Avrupa'ya Çevrilmiş İki Gözü: Eflak ve Boğdan'da Fenerli Voyvodalar (1711-1821) [The Sublime Porte's Two Eyes Fixed over Europe: Phanariote Voivodes (Principalities) in Wallachia and Moldavia (1711-1821)]. Uluslararası İlişkiler, 2010, Vol. 7, Issue 26, Ankara, p. 32.
- 33.¹. Dimitrie Cantemir (1673-1723) lived in Istanbul for many years. He wrote books on the Ottoman history and the Turkish music. He composed also many songs. For detailed information, available at https://ottomanhistorians.uchicago.edu/en/historian/dimitrie-cantemir [Accessed: 12.03.2022].
- 34. BOA [Ottoman Archives of the Prime Ministry], Mühimme Defteri, No: 119: 39.

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35. 1. Philliou C. M. Worlds, Old and New: Phanariot Networks and the Remaking of Ottoman Governance In the First Half of the Nineteenth Century: Ph.D. Thesis. USA, Princeton University, 2004, p. 83-86.

- 36.¹. The execution of Constantin Brancoveanu and his sons by the Ottomans led to the heroification of Brancoveanu in the Romanian history.
- 37. Available at https://www.rri.ro/en\_gb/the\_reign\_of\_constantin\_brancoveanu-20886 [Accessed: 03.02.2022].
- 38. 1. BOA [Ottoman Archives of the Prime Ministry], Mühimme Defteri, No: 120: 168.
- 39.1. BOA [Ottoman Archives of the Prime Ministry], Cevdet Tasnifi, Hariciye No: 3752.
- 40.<sup>1</sup>. Papachristou P. A. *The Three Faces of the Phanariots: An Inquiry into the Role and Motivations of the Greek Nobility Under the Ottoman Rule (1683-1821)*. Master Thesis, Department of History, Simon Fraser University, 1992, p. 122.
- 41.¹. Alexander Suzzo and Charles Callimachi were appointed by the Sublime Porte to replace the revoked Mourouzi and Ipsilanti. See. UZUN, Ö. F. *1806-1812 Osmanlı-Rus Harbi'nde Rus Ordusunun Tuna Harekâtı* [The Russian Operations in Danube in the Russo-Ottoman War of 1806-1812]. Master Thesis, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Tarih Anabilim Dalı, Ankara, 2020, p. 34.
- 42.¹. Erkutun M. İ. Mevridü'l Uhud 1812 Bükreş Anlaşması ile İlgili Galib Paşa Evrakı [Galib Pasha Document on the Bucharest Treaty of 1812, Way to the accord]. Master Thesis, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, Tarih Bölümü, Yakınçağ Tarihi Anabilim Dalı, İstanbul, 1997.p. IX-X.
- 43.¹. The eventual closure of the Turkish Straits to the Russian ships was also an important reason in the outbreak of this war in 1806. The Russian Tsardom, without declaring officially a war, invaded the Ottoman territories See. UZUN, Ö. F. 1806-1812 Osmanlı-Rus Harbi'nde Rus Ordusunun Tuna Harekâtı [The Russian Operations in Danube in the Russo-Ottoman War of 1806-1812]. Master Thesis, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Tarih Anabilim Dalı, Ankara, 2020, p. 35-36.
- 44. The Ottoman Sultan, Selim III, who did not expect such an attack was stunned when he received the news. See. Karal, E. Z. *III. Selim'in Hattı Hümayunları*. [The Hattı Hümayuns (Imperial Edicts) of the Selim III]. Ankara: Türk Tarih Kurumu, 1942, p. 96.
- 45. Nallachia and Moldavia were occupied four times by the Russians during the XIX. century, in 1806, 1828, 1849 and 1853. During the 1877-1878 Ottoman-Russian war, the principalities fought besides Russia against the Ottoman Empire and at the end of the war became independent. See. KARASU, C. XIX. Yüzyılda Eflak ve Boğdan'daki Rus İşgalleri [Russian Occupations in Wallachia and Moldavia during the XIX. century]. In: *TÜRKLER*, 2002, Ed.: Hasan Cemal Güzel, Kemal Çiçek, Salim Koca, Vol. 12, Yeni Türkiye Yayınları, Ankara, p. 741-749.
- 46.¹. Çiftçi C. Bab-ı Ali'nin Avrupa'ya Çevrilmiş İki Gözü: Eflak ve Boğdan'da Fenerli Voyvodalar (1711-1821) [The Sublime Porte's Two Eyes Fixed over Europe: Phanariote Voivodes (Principalities) in Wallachia and Moldavia (1711-1821)]. *Uluslararası İlişkiler*, 2010, Vol. 7, Issue 26, Ankara, p. 43.
- 47.¹. Local boyars were complaining to the Ottoman authorities about the despotic administration of Phanariote rulers and were denouncing that Phnariotes were betraying to the Ottoman State. Underlining the above mentioned reasons, the local boyars were insisting on the removal of the Phanariote rulers and their substitution by local princes. See. BOA [Ottoman Archives of the Prime Ministry], Romanya Ahkam Defteri, 80/4, p. 406. Hüküm 1181.
- 48. Tudor Vladimirescu who was initially a leader of a peasant movement assumed later the leadership of a militia army, including the Pandurs (*Pandur* or *Pandour* was a non-professional soldier with semi-permanent obligations. Panduris were generally accused for banditry activities). See. POPESCU-JUDETZ, E. Adakale: Geçmişteki Bir Türk Adası [Adakale: A Turkish Island in the Past]. In: *TÜRKLER*, 2002, Ed.: Hasan Cemal Güzel, Kemal Çiçek, Salim Koca, Vol. 12, Yeni Türkiye Yay., Ankara, p. 2030-2031. As Phanariote Greek rulers were collecting high taxes and thus financially oppressing the poor peasants, Vladimirescu initiated in 1821 an uprising against the Phanariote rulers. This uprising with nationalist and social aspects aimed to oust not only the Phanariotes but also the Ottoman rule. Vladimirescu was executed in June 1821 by the Philiki Etaireia (Friendly Brotherhood) forces, in other words by the Greek revolutionary society led by the Phanariote Alexander Ipsilanti. See. KARPAT, K. "Eflak" [Wallachia]. In: *Türkiye Diyanet Vakfı İslam Ansiklopedisi*, 1994, Vol.10, İstanbul, p. 469.
- 49.¹. Despite the dissolution of the Phanariote system in 1821, Russia continued to be influential on local princes as well. Upon the Akkerman Agreement signed in 1826 between the Ottomans and the Russians, the term of voivodeship was prolonged from three to seven years and Russia's prior consent in removal of the voivodes was accepted by the Ottomans. See. PAPACHRISTOU, P. A. *The Three Faces of the Phanariots: An Inquiry into the Role and Motivations of the Greek Nobility Under the Ottoman Rule (1683-1821)*. Master Thesis,

- Department of History, Simon Fraser University, 1992, p. 141. Thus, in practice, the Sublime Porte could no longer appoint or dismiss the voivodes by its own will. Moreover, upon the conclusion of the Adrianople Treaty with Russia in 1829, the Ottoman authorities were obliged to accept in principle the prolongation of the tenure of voivodes for life. See. PHILLIOU, C. M. Worlds, Old and New: Phanariot Networks and the Remaking of Ottoman Governance In the First Half of the Nineteenth Century: Ph.D. Thesis. USA, Princeton University, 2004, p. 330.
- 50.1. Upon the dissolution of the Phanariote system, the local boyars proposed Gregor Ghica and Ioan Sandu Sturza to replace the former rulers. The Ottoman authorities approved Gregor Ghica and Ioan Sandu Sturza as the new voivodes, respectively to Wallachia and Moldovia. See. BOA [Ottoman Archives of the Prime Ministry], Hatt-I Hümayun, No: 14300.
- 51.¹. ÇİFTÇİ, C. Bab-ı Ali'nin Avrupa'ya Çevrilmiş İki Gözü: Eflak ve Boğdan'da Fenerli Voyvodalar (1711-1821) [The Sublime Porte's Two Eyes Fixed over Europe: Phanariote Voivodes (Principalities) in Wallachia and Moldavia (1711-1821)]. *Uluslararası İlişkiler*, 2010, Vol. 7, Issue 26, Ankara, p. 43.
- 52.¹. Bilim, Cahit. "Tercüme Odası". [Translation Unit]. In: *Ankara Üniversitesi Osmanlı Tarihi Araştırma ve Uygulama Merkezi (OTAM) Dergisi*, 1990, Issue 1, Ankara, pp. 33-42.

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#### A GREAT WRITER IN THE BACKGROUND OF AN EPOCH

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**Abstract.** The aspect that mainly characterizes the literary process from the 90s of the last century is the intensification of the process of capitalization on the interwar literary heritage. Many writers are re-included in the circuit of our spiritual values. The publication of their works is followed by monographic investigations. Studies, portraits and essays are written in anthologies and literary histories. Leon Donici is one of the most original and innovative prose writers. Outlined as an artistic personality in the Russian cultural environment, Leon Donici brought in Romanian literature an ostentatious nostalgic spirit: romantic, but also realistic; clear, but also deeply tragic. A well-defined personality, Leon Donici was overwhelmed by contradictory impulses and deserved, on account of this, an unequal acceptance that was dominated by numerous stereotypes.

**Keywords:** modernism, influences, lyricism, contradictory, sensitivity.

**Rezumat**. Aspectul ce caracterizează în principal procesul literar din anii '90 ai secolului trecut este intensificarea procesului de valorificare a patrimoniului literar interbelic. Mulți scriitori sunt re-incluși în circuitul valorilor noastre spirituale. Publicarea lucrărilor acestora este urmată de investigații monografice. Studiile, portretele și eseurile sunt incluse în antologii și istorii literare. Leon Donici este unul dintre cei mai originali și inovatori prozatori. Conturat ca personalitate artistică în mediul cultural rus, Leon Donici a adus în literatura română un spirit nostalgic ostentativ: romantic, dar și realist; lucid, dar și profund tragic. Personalitate bine conturată, Leon Donici a fost copleșit de impulsuri contradictorii și s-a bucurat, din această cauză, de o acceptare inegală, dominată de numeroase stereotipuri.

**Cuvinte-cheie**: modernism, influențe, lirism, contradictoriu, sensibilitate.

## Introduction

A prose writer, a playwright and a publicist, Leon Donici (Russian name Leonid Dobronravov) is a great literary injustice. Very little has been written about him. The publication of the volume The *Great Archimedes* (1997) paved the way for many attempts at multiple interpretations of the author's prose. The volume changes the opinion of the critiques, too unfavorable until then, and places the prose writer among the notoriety of Romanian prose. Although the edition in question is not complete, it allows us to try an

overall axiological judgment. In the meantime, the volume stimulated the appearance of studies and articles signed by Ana-Maria Brezuleanu, Sava Panzaru, Iurie Colesnic, the most knowledgeable contemporary researchers of Leon Donici's work. The creative biography of the writer is reconstructed, rich in legends that circulated during his life as well. The literary models and influences are being identified, including those of Aleksei Remizov, Feodor Sologub, Leonid Andreev. However, there was less talk about the Romanian models of Leon Donici's prose: Mihai Eminescu and Ion Creanga.

The end of the 19<sup>th</sup> and the early 20<sup>th</sup> century are marked by a rupture in the social and artistic life of Russia [1]. Philosophical-religious societies are organized, in which intellectuals, scientists, writers meet with theologian prelates to discuss spiritual and religious issues. The approach of the catastrophe is being felt more and more acutely. In literature and art appear works focused on apocalyptic motifs, characteristic of the "crisis" of the modern world: in the end, it acts, uncontrollably, on the imagination of some, producing disordered representations" [2]. In Russian literature, along with these, there is a spiritual renewal, a cultural boom, characterized by philosophical exaltations. It is the beginning of a real silver age in Russian culture, in which Leon Donici is formed and asserted.

## Methodological Part

The principles and methods used belong to the exegetical thesaurus of modern historiography. By associating the perspectives of thematic, structuralist, psychoanalytic, typological interpretation, a semiotic analysis of the texts was tried. Particular attention was paid to the historical-literary method, which is the basic tool of the work.

The new historical age has a considerable impact on the writing self and the literary character who judges the world and man's relationship with it from other perspectives. The writer is aware of a drifting world, of powerful cataclysms with serious consequences. The tragic endings in the literary texts begin to acquire an extra-personal, historical, epochal character. Man, at the crossroads of ages, feels "at the crossroads" of worlds and ages. He is going through an acute identity crisis and is experiencing colloidal states [3].

Especially short prose responds promptly to the challenges of time. It explores the new realities and forms of life more dynamically. It is no coincidence that the writer in short prose, as I. L. Caragiale put it, "feels enormous and sees monstrously." In the short story, the new realities are artistically probed by the short epic genre, a much more dynamic genre than, for example, the novel. The latter even at the beginning of this century puts considerable pressure on the short story, the sketch, the tale until they conform to the recognized canons. The most visible tendency in short species is to make them look like miniature novels. But, unlike the novel, the sketch, the story and the short story have kept a greater freedom of fantasy, a greater promptness of the artist's reaction to the realities of the time.

#### **Results and Discussion**

Leon Donici marks his literary debut in 1909 with the story *In Search of the Eternal Truth*, published in *Русский паломник* (The Russian Pilgrim). He continues to publish other stories in the magazines of the time next year. In 1911 he published the short story *Mon plaisir* in *Исторический вестник* (Historical Monitor), which was later published in the German magazine "Berliner Kreuz-Zeitung", translated by Leopold Schmidt. In 1912, Leon Donici published the short story *Bolnavii* in *Исторический вестник* and the story *Мерhistopheles* in *Всемирная панорама* (Universal Panorama). In 1915 he published the collection of short stories *Bitter Flower*, reviewed by M. Levidov, A. Derman and others. In

1920, after coming to Bessarabia, he published a series of short stories in the *Country Council*. Thus, in 1921, the story *Requiem* was published in *Viataromaneasca*, which marked the beginning of a fruitful collaboration of the author with Romanian magazines. After settling in Bucharest, in 1922, the writer collaborated with other literary journals. At the same time, he attended the meetings at the Eugen Lovinescu's cenacle, *Sburatorul*, where he reads the short story *The Great Archimedes*. In 1930, the volume *Bitter Flower* appeared posthumously, translated by G. M. Ivanov. Much later, the stories *Antichrist* and *Poet and Woman* in the *Chrysanthemum at the Border* are published, an anthology compiled by Veronica Batca [4].

With a certain crisis of realism, which is being criticized by most critics, a group of selfproclaimed neorealist young writers is beginning to assert themselves. Reflecting on Russian neorealism, Leon Donici notes: "Far from reality, this is the motto of modern Russian literature. This feature is the reaction after decades of realistic, too realistic, photographicbiased literature". Without having a clear view about the methods to be applied by the neorealist group, he went through numerous literary experiments, turning to both naturalism and extreme modernism, in both cases trying "new methods of writing to describe real life." In the same context, the writer reveals: "At first, a storm arose around us. The realists cursed us because we avoided the old methods and well-established practices in their dogma of describing life. We were also attacked by the symbolists, because we described subjects from such a real and sometimes so vile a life." Moreover, the abjection of life is the primary source of inspiration for neorealists. Ultimately, Leon Donici remarks, "we wrote what we thought was good to write and in a way that suited us," and "... we didn't have a well-established literary theory. But I had gone through all the literary turmoil, through the fiercest modernism, sometimes even extreme and excessive, applying the new methods of writing to the description of real life" [5]. M. Gorky is considered to have played a significant role in forming this group. The Russian researcher A. Sokolov notes that the new writers speak out against decaying morals in the name of the "human ideal, close to nature" [6]. Defining the new literary phenomenon, Leonid Andreev argues that neorealism is "neither realism, nor symbolism, nor romanticism," but a happy symbiosis of all these.

The basic way of the new direction in Russian literature is a predominantly cinematic way of presenting everyday facts, without too many comments on them. Namely in the sphere of the everyday, in the gray of the banal, in spaces where nothing happens, the tragedy of the little man takes place and in these vital spaces the artistic universe of Leon Donici is affirmed, about which Nichifor Crainic remarks: "Leon Donici is an admirable case of moral conscience and a great and unique example given to the Bessarabians" [7].

Fascinated by color and sound, the original Russian and Romanian author, Leon Donici harmonizes the two cultures, languages and literatures, completes the knowledge of the Romanian reader with new data about Russian literature, launches and disseminates Romanian literature in Russian media. The register of his writings is rich: from articles, controversies and studies to short stories, prose poems and novels. Leon Donici was a truly prolific writer.

Sometimes his short prose asserts the primacy of imagination, the dictation of fantasy over reality. At other times, the writer is enslaved by the adventure of creation and the fascinating mysteries of the universe. Unadapted to the shakes of everyday life, Leon Donici "multiplied" with intensity and depth in most of his characters, to whom he truly gave authentic and colorful life. The dream, frequently attested in his prose, is a form of escape in an area where the feverish imagination builds other worlds, with a well-established support

in the biography, but also in the ardor with which the writer investigates the world around him [8].

It is true that the literary work is not a faithful transposition of the life and experience lived by the writer, but, on the contrary, following the laws of creation, it makes a leap beyond the real and reaches the areas of the dream. The universe created by Leon Donici is an essentialized form of the real one; it has a surplus of life and gains, with each work published, in authenticity and sublime. Moreover, from this discreet fusion between the real and the imaginary, it can be concluded that, at least in a first layer of knowledge, epistemologically, but also ontologically, the writer's life can illuminate and explain his work.

The lyricism of Russian origin is characterized as a deep one with tones of romance. Demostene Botez notices the synthesis between "melancholy and Moldovan resignation" and "that uneasiness disturbed by the Russian" [9]. Leon Donici has full confidence in the power and suggestiveness of the Word. Lucian Blaga reveals in Leon Donici's writing "admirable poetic thoughts, sometimes subtle, hiding their meaning with a lunatic smile, sometimes apocalyptic with depths of prophecy" [10]. It has been observed that the vein of Russian sensibility is defining in the prose of the writer. Leon Donici plants the values and the Russian spirit in the fertile soil of the found homeland. Reflecting on the human and writing destiny of Leon Donici, Mihai Cimpoi notes: which, he said, retains patriarchal features not found in the West or in Russia" [11].

Diverse as thematic, varied and bizarre as worlds, characters and geographies, Leon Donici's short prose is also characterized by heterogeneity of poetry, but is unitary by lucidity, lyricism, sincerity, nostalgia, bookish, elegance and refinement of style. Writings in Romanian are characterized by clumsy handling of the word, countless Russian-language calchieri, regionalisms. The setting is preferably urban. The dense lyricism of the prose intensifies precisely the psychological analytism, the drama of the narrative discourse [12]. The lucidity with which the author transfigures the immediate reality into literary journalism remained essential, giving a strong reply to the revolutionary romanticism materialized in utopian works about the Russian revolution. Leon Donici's short prose is more difficult to fit into the patterns of naturalism or realism, it is a combinatorial burn of several poetic elements from different sources.

Donici's prose thus breaks the patterns of traditionalist prose. The writer inaugurates, with the novel *The Russian Revo*lution, the anti-utopian theme in Romanian literature [13]. His short story *The Great Archimedes* is one of the first literary works to warn humanity of the Bolshevik danger, of the horrors of the then rising communist regime. His prose makes a new philosophical interpretation of man and his time, diversifies the interwar Romanian literature and enriches it considerably from a stylistic point of view [14].

The variety of narrative techniques used by the prose writer nuances his epic discourse, makes it more complex and engaging and, ultimately, contributes substantially to the (re)reaction of the image of the world, to the substantialization of narrative discourse. The way the prose writer writes is a cinematic way of presenting the pulse of reality, of everyday facts. Namely in the sphere of everyday life, in the immediate reality, the tragedy of the little man takes place and the artistic worlds of Leon Donici assert themselves [15]. The writer is truly the only character in his work, expressing self-confessions, in numerous autobiographical disguises, easily decipherable. In other words, the writer fits sharply into the modernist canon and through the syncretism of the arts, through the anti-utopian dimension and the intertextual dialogue artistically explored in the spirit of the time. The

modernization of the Romanian narrative is achieved by deliberate renunciation of the human narrative court. Donici thus anticipated the very productive prosaic experiments of the last century.

## **Conclusions**

The writer's prose is undoubtedly an artistic document about the tragedy of the intellectual's existence in a drifting society, attesting in it some similarities of destiny of the Romanian intellectual at great historical crossroads. Although his intellectual is a loser, deeply experiencing the social and humanitarian catastrophes of the time, he becomes a promoter of human values.

Beyond the Russian influences – Alexei Remizov, Feodor Sologub, Leonid Andreev - the Romanian literary models are also identified: Mihai Eminescu and Ion Creanga. Leon Donici is organically part of the Romanian literary tradition and by reinterpreting the fundamental myths. the myth of Sburatorul, for example, is reconstructed in an impressive parable about love, where the eternal myth of creation reaches unexplored depths. The writer illustrates, among the first in prose from Bessarabia, the Romanian Mioritism. He creates memorable characters that bring to the fore the authentic Romanian spirit and sensitivity.

Leon Donici certainly established himself among the values of Romanian literature, among the founders of modern Romanian prose. His short story is a unique creative show, fascinating by the wide breath of reality, captured in its various poses. The qualities that his prose displays are: a certain amount of unadulterated life, a density of emotion, refinement and elegance of style.

#### References

- 1. Guenon R. Criza lumii moderne [The crisis of the modern world]. Bucharest: Humanitas, 1993.
- 2. Donici L. *Revoluția rusă*. *Amintiri, schiţeşi impresii* [The Russian Revolution. Memories, sketches and impressions]. Bucharest: *Editura Fundatiei Culturale Romane*, 1996.
- 3. Meyer M. The Bedford Introductionto Literature. Reading. Thinking. Writing. Boston: Bedford Edition, 2002.
- 4. Şeicaru P. *Basarabia care nu se vede. Un mare romancier basarabean necunoscut: Leon Donici* [Bessarabia that cannot be seen. A great Bessarabian novelist unknown: Leon Donici]. In *Adevarul*, 1919, 10, p. 3.
- 5. Muşina A. *Unde se află poezia?* [Where is the poetry situated?]. Tîrgu-Mures: *Arhipelag*, 1996.
- 6. Sokolov A.G. Istoriya russkoy literatury kontsa XIX nachala XX veka [History of Russian literature of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries]. Moscow: Vysshaya shkola, 1999.
- 7. Crainic N. *Basarabia îndoliată reprimește pe Leon Donici* [The grieving Bessarabia represses Leon Donici]. In *Cuvântul*, 1926, 503, July 11, p.2.
- 8. Zamyatin Y. *My. Roman. Povesti. Rasskazy. P'yesy. Stat'i i vospominaniya* [We. Novel. Tales. Stories. Plays. Articles and memoirs]. Chisinau: Literatura Artistica, 1989.
- 9. Botez D. *Leon Dobronravov Donici*. In *Viaţa românească*, 1926, 5-6, p. 3. 8 shortnovels. Editedwith an introduction by DEAN S. Flower, Greenwich. NY: Fawcett Publications, 1967.
- 10. Blaga L. Leon Donici. In Patria, 1922, 265, p.5.
- 11. Cimpoi M. *O istorie deschisă a literaturii române din Basarabia* [An open history of Romanian literature in Bessarabia]. Bucharest: Editura *Fundației Culturale Române*, 2002.
- 12. Burlacu A. *Leon Donici*. In *Literatura română din Basarabia*. Anii 20 30 [Romanian literature from Bessarabia. 20s and 30s]. Chisinau: TEHNICA-INFO, 2002.
- 13. Donici L. *Literatura rusă modernă* [Modern Russian literature]. In *Marele Archimedes. Proză literară, publicistică, receptare critică* [The great Archimedes. Literary prose, journalism, critical reception]. *Bucharest: Editura Fundației Culturale Romane*, 1997.
- 14. Lovinescu E. Moartea lui Leon Donici [Leon Donici'sdeath]. In Sburatorul, year 1926, 4, p.2.
- 15. Donici L. Marele Archimedes [The Great Archimedes]. Bucharest: Editura Fundatiei Culturale Romane, 1997.

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# THE USE OF SPATIAL MODELING TO TEACH ENGINEERING GRAPHICS

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**Abstract.** The article addresses the problem of increasing the efficiency of studying the object of *Engineering Graphics* within the limits of the hours stipulated in the curriculum. The student receives at each practical lesson an individual graphic work to apply the theoretical material. They have to create flat drawings after intuitive axonometric drawings. These orthogonal drawings form the basis of the technical documentation. Based on the experience of teaching the discipline, the authors considered it opportune to use the spatial models of the individual task created by the students themselves. A staggered teaching method of 3D modeling was elaborated with the selection of a minimum set of commands necessary for the realization of the proposed model at each of the practical lesson. Students can see the relationship between real objects and their projections, get acquainted with spatial modeling and develop spatial imagination. The analysis of the results implementation of the given method increased the quality of studies.

**Keywords:** Engineering Graphics, orthogonal drawings, staggered teaching method of 3D modeling.

**Rezumat.** Articolul abordează problema sporirii eficienței studierii obiectului *Grafica inginerească* în limita orelor prevăzute în curriculum. După familiarizarea cu materialul teoretic studentului la fiecare ocupație practică i se propune o sarcină individuală. Sarcina de regulă constă în crearea unor desene plane care stau la baza documentației tehnice, după niște modele spațiale. Reieșind din experiența predării disciplinei, autorii au considerat mai utilă crearea modelelor spațiale nemijlocit de către studenți. În scopul încadrării în limita orelor prevăzute a fost selectat un set minim de comenzi necesare pentru realizarea modelului propus. Astfel, îndeplinind lucrările, studenții pot observa relația dintre obiectele reale și proiecțiile lor, familiarizându-se cu modelarea spațială și înțeleg mai ușor materialul expus. Analiza rezultatelor studierii cursului după implementarea metodicii date a arătat o sporire a calității studiilor.

**Cuvinte-cheie:** grafică inginerească, desen ortogonal, studiere eșalonată a modelării 3D.

#### Introducere

Una dintre problemele frecvent discutate în mediul pedagogic este utilizarea calculatorului și a modelelor atât în procesul de proiectare, cât și în instruirea grafică a studenților specialităților inginerești.

Avantajul predării prin vizualizarea informațiilor educaționale cu utilizarea modelelor 3D este evident. Spre deosebire de ilustrațiile plane, modelele 3D volumetrice permit transformări și vizualizarea din diferite puncte de vedere ce înseamnă posibilitatea interacționării active cu aceste modele [1 - 3]. Pentru a facilita studierea materialului teoretic și a dezvolta imaginația spațială a studenților, în ziua de azi sunt pe larg utilizate modelele 3D ale pieselor [4 - 6]. În ce privește metoda de proiectare de către studenți, părerile specialiștilor în domeniu sunt împărțite [7]. Discuțiile sunt purtate între adepții metodelor tradiționale de proiectare și cei ai predării în cadrul disciplinelor *Grafica inginerească* și *Geometria descriptivă a bazelor modelării 3D* [8 - 10].

Însă proiectarea pieselor, alegerea schemelor de calcul, schițarea prealabilă de obicei sunt executate în creion. Acest mod de reprezentare permite înțelegerea principiilor fundamentale ale graficii, dezvoltarea unei capacități avansate de vizualizare. Desenele plane ce conțin vederi, secțiuni etc. stau la baza creării documentației tehnice de la întreprinderi și nu pot fi excluse din procesul de studiu. Considerăm că metoda optimală este combinarea metodelor tradiționale de studiu cu elemente din modelarea 3D [11 - 13].

## Materiale și Metode

În cadrul Departamentului Inginerie Mecanică a Universității Tehnice a Moldovei a fost efectuat studiul posibilității de combinare a predării *Graficii inginerești* cu utilizarea modelelor spațiale. În scopul sporirii eficienței aplicării cunoștințelor teoretice în practică, pentru studenții anului I la disciplina *Grafică inginerească* au fost elaborate în calitate de sarcină individuală câte 30 de variante de modele spațiale interactive la temele "Vederi", "Secțiuni simple", "Secțiuni propriu-zise", "Schițarea capacului", "Roți dințate". Modelele 3D au fost salvate în format 3DPDF și depozitate în Google Drive [14]. *Hiperlink*-ul care a fost propus studenților a fost redactat astfel, încât să impună deschiderea modelului în Adobe Reader (Figura 1).

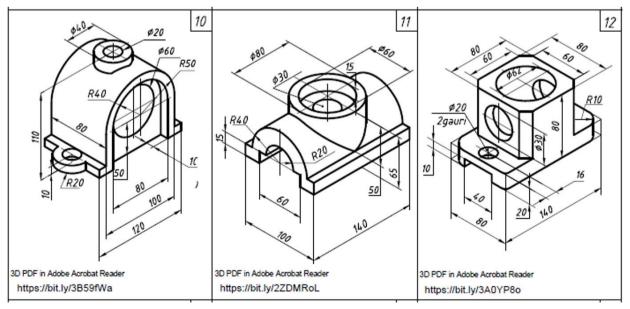


Figura 1. Exemple de sarcini la tema "Secțiuni simple".

Deschise în Adobe Reader, modelele sunt interactive și pot fi rotite și secționate. Pentru majoritatea studenților, aceste modele sunt foarte utile în procesul de elaborare a proiecțiilor ortogonale.

Utilizarea modelelor nu impune însă o analiză a suprafețelor care formează piesa. Deseori studenții le pot folosi mecanic doar prin rotirea piesei și așezarea ei în poziția corespunzătoare pentru a căpăta proiecțiile ortogonale.

Am considerat că mult mai utilă ar fi realizarea individuală a acestor modele. Acest lucru ar necesita studierea mai minuțioasă a formei piesei, evidențierea tipurilor de suprafețe din care este compusă, modului de combinare a acestor suprafețe.

Timpul rezervat disciplinei este limitat însă de programul de studiu, iar orele oferite pentru disciplină nu sunt suficiente pentru studierea detaliată a tuturor instrumentelor pentru modelarea 3D din AutoCAD și a modului de combinare a diverselor instrumente pentru a căpăta rezultatul necesar. Curriculumul prevede doar un număr limitat de ore de studiu al instrumentelor 3D, care, de obicei, se realizează la finele cursului.

În cadrul disciplinei *Grafica inginerească* pentru specialitățile Facultății Tehnologia Alimentelor, care conține doar 30 ore curs și 30 ore de ocupații practice, ne-am propus realizarea acestei sarcini, combinând studierea obiectului *Grafica inginerească* cu studierea și aplicarea instrumentelor AutoCAD 2D și celor de modelare 3D.

Primele ore de studiu sunt destinate tradițional studierii interfeței AutoCAD, a modului de operare - desenare și editare. Apoi sunt studiate standardele de bază de executare a documentației tehnice și aplicarea acestor standarde în desenele executate în AutoCAD (formate, tipuri de linii, scriere standardizată, reguli de cotare etc.). Se creează un desen prototip care conține indicatorul și setările de bază pentru linii, inscripții si cote.

La următoarele lecții sunt studiate si aplicate comenzile de desenare și redactare pentru realizarea unor desene simple care conțin diverse construcții și racordări plane. La fiecare dintre lecțiile următoare sunt studiate acele comenzi ale AutoCAD, care asigură realizarea lucrării practice la *Grafica inginerească* cum ar fi *Xline* pentru legătura proiectivă a vederilor, *Pline* și *Hatch* pentru executarea secțiunilor etc.

În cadrul Departamentului Inginerie Mecanică a fost elaborată o metodică de predare a modelării spațiale, care permite crearea de către studenți a modelelor 3D ce corespund sarcinilor individuale la temele curriculare pentru *Grafica inginerească* cu un set minim de instrumente de modelare.

Modelele spațiale create permit studenților să realizeze raportul dintre obiectele reale și proiecțiile lor ortogonale. Pe de altă parte, ei sunt familiarizați cu spațiul 3D de modelare din AutoCAD.

Numărul limitat de instrumente propuse permite studierea eșalonată a modelării fără a face schimbări în programul de studiu, păstrând numărul de ore acordat disciplinei. Pentru aceasta, am colectat și am elaborat un șir de sarcini individuale, care reflectă materialul studiat în cadrul disciplinei și pot fi realizate cu un număr minim de comenzi de modelare spațială. Utilizarea acestor comenzi este demonstrată prin realizarea unui exemplu și ocupă 15-20 min. din timpul lecției.

Lucrarea grafică individuală la tema "Sisteme de proiecții. Tripla proiecție ortogonală" conține o prismă trunchiată cu gaură verticală [15]. Scopul lucrării este aplicarea proprietății de apartenență pentru determinarea intersecției găurii verticale cu fața înclinată a prismei și realizarea proiecției laterale după proiecțiile frontală și orizontală ale corpului. Variantele

sarcinilor au fost alese astfel, încât modelul 3D să poată fi realizat doar prin intermediul a 2 comenzi de modelare -. *Presspull* și *Slice* (Figura 2).

Pentru vizualizarea rezultatului se utilizează comenzile de nuanțare *Visual Style* și navigare *View*.

Realizând modelul prismei după algoritmul propus, studenții pot verifica corectitudinea executării lucrării grafice individuale.

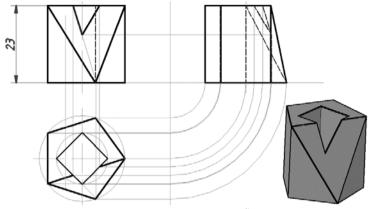


Figura 2. Exemplu de lucrare grafică la tema "Proiecții ortogonale ale prismei".

Pentru tema "Vederi" au fost alese variante simple ca și construcție [16], dar care conțin suprafețe înclinate pentru reprezentarea cărora se utilizează legătura proiectivă (Figura 3).

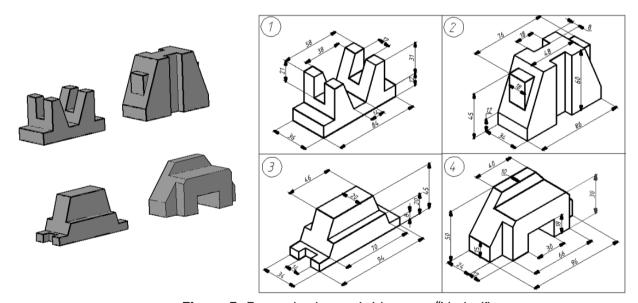
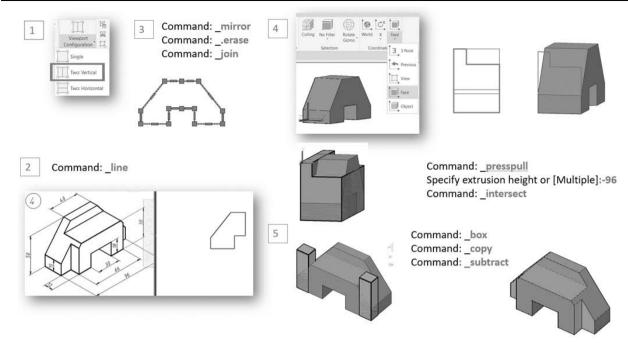


Figura 3. Exemple de sarcini la tema "Vederi".

Pentru realizarea modelor 3D ale acestor corpuri geometrice este suficientă cunoașterea suplimentară doar a comenzilor de creare a primitivei *Box* și operațiilor Booleene *Union, Subtract, Intersect,* precum și modul de utilizare a sistemului de coordonate al utilizatorului *UCS* (Figura 4).

Algoritmul de modelare propus este comun și poate fi aplicat tuturor variantelor sarcinii. Sarcinile pentru tema "Secțiuni simple" conțin suprafețe poliedrice, precum și suprafețe conice și cilindrice cu axe verticale și orizontale [17]. Pentru realizarea modelelor 3D ale acestor piese se studiază primitivele *Cylinder, Cone*, precum și modul de utilizare a sistemului de coordonate dinamic *UCSDETECT* (Figura 5).



**Figura 4.** Etapele de modelare a vederilor.

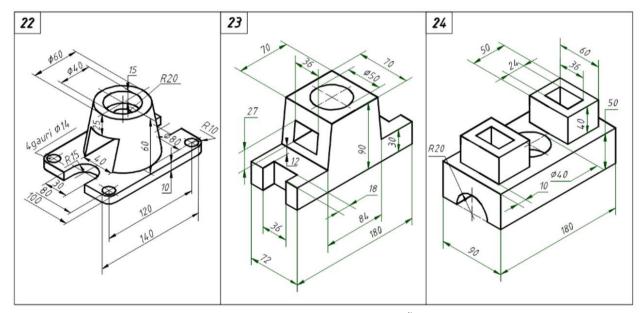


Figura 5. Exemple de sarcini la tema "Secțiuni simple".

Pentru crearea modelelor din variantele propuse este necesară analiza suprafețelor din care este format corpul respectiv, precum și poziția lor. Această analiză este foarte importantă la temele de schițare a pieselor reale studiate ulterior. La reuniunea elementelor și formarea găurilor se utilizează operațiile Booleene *Union* și *Subtract* studiate anterior.

La realizarea modelului spațial al arborilor [18] și capacelor [19] se utilizează comanda *Revolve* (Figura 6).

Modul de creare a modelelor reflectă practic procesul de fabricare a pieselor respective, lucru de care este necesar să se țină cont în procesul de elaborare a documentației tehnice. În procesul de realizare a modelului 3D al piesei filetate studenții înțeleg ce reprezintă și cum se determină profilul și pasul filetului, precum si noțiunea de filet pierdut.

Realizând modelele spațiale, studenții pot observa relația dintre obiectele reale și proiecțiile lor utilizate în documentația tehnică.

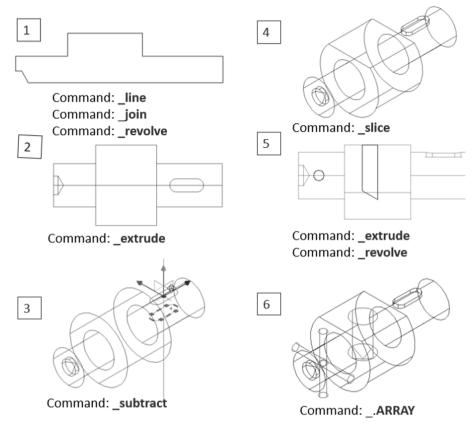
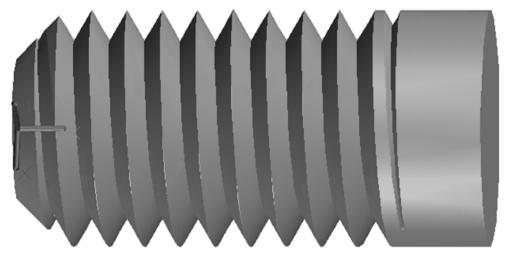


Figura 6. Modelarea arborelui prin utilizarea comenzii Revolve.



Pentru realizarea filetului ce utilizează comenzile *Helix* și *Sweep* (figura 7). **Figura 7.** Filet obținut prin utilizarea comenzilor Helix și Sweep.

Modelele spațiale create permit studenților să înțeleagă materialul dedicat modelării 3D expus în ultima lecție conform Curriculumului, în care se studiază deosebirea dintre diferite tipuri de obiecte: modele solide, suprafețe și rețele, precum și relația dintre acestea. Tot în cadrul acestei lecții se demonstrează metoda de creare automată a vederilor și secțiunilor, pornind de la modelul 3D [19 - 22].

## Rezultate și Discuții

Implementarea acestei metodici de predare servește drept catalizator al dezvoltării imaginației spațiale, aptitudinii de citire a desenelor tehnice de către studenți.

Metodica expusă a fost implementată în anii universitari 2019/2020, 2020/2021 şi 2021/2022. Analizând rezultatele studierii cursului de către studenții Facultății Tehnologia Alimentelor, putem conchide următoarele: implementarea noii metodici de predare nu a influențat reușita studenților (Figura 8), dar a sporit considerabil calitatea studiilor (Figurile 9 și 10).

Analiza rezultatelor a fost efectuată pe un eșantion de 280 studenți, având o marjă de eroare de 1%, legată de trunchierea evaluărilor. Criteriile de apreciere la evaluarea periodică nr. 1 și la examen, precum și sarcinile în anii de studii analizați sunt identice.

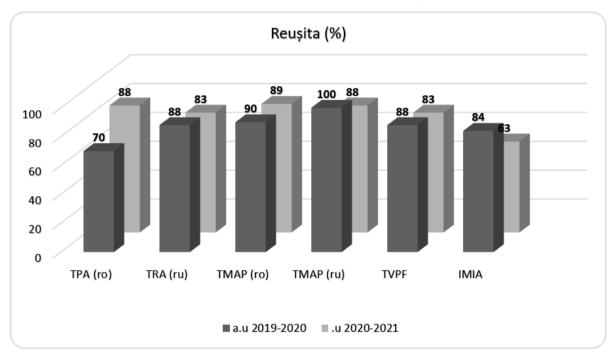


Figura 8. Reușita finală (%) a studenților.

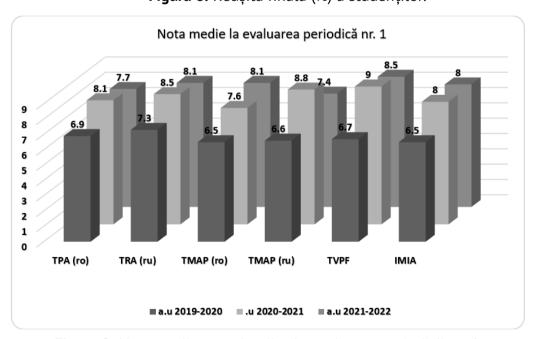


Figura 9. Nota medie a studenților la evaluarea periodică nr. 1.

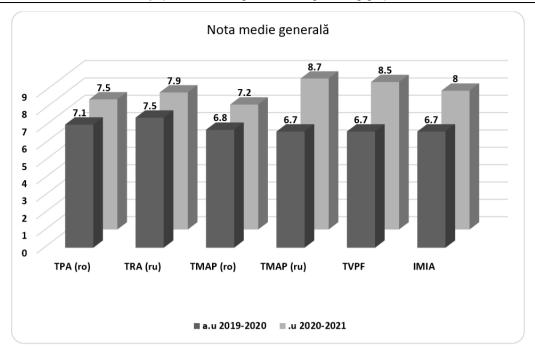


Figura 10. Nota medie finală a studenților.

Metodica propusă a fost discutată în cadrul seminarului metodic al Departamentului Inginerie Mecanică din 30 martie 2022.

Au fost analizate avantajele și neajunsurile metodicii date și s-au făcut propuneri pentru implementarea și dezvoltarea ei.

Pentru elaborarea modelelor spațiale nu se acordă timp suplimentar, acestea se realizează din contul orelor de lucru individual al studenților, de aceea sunt opționale și nu trebuie să afecteze nota finală.

În cadrul discuțiilor s-au abordat metodele de implicare și cointeresare a studenților în activitatea de studiere și aplicare a modelării ca instrument de studiu.

În scopul stimulării activității date a fost elaborat un sistem de bonusuri care suplimentează numărul de puncte ale notei finale, fără a se răsfrânge asupra notei la evaluările periodice.

## Concluzii

Studiul a demonstrat eficiența implementării metodicii respective și va fi recomandat pentru predarea disciplinelor *Grafica inginerească* și *Desen tehnic* din cadrul altor facultăți.

Având în vedere că aceste discipline își au specificul lor de predare la diferite facultăți ale Universității Tehnice a Moldovei, metodica necesită a fi adaptată acestor particularități.

Este necesară completarea cursului cu elemente din *Geometria descriptivă* pentru Facultatea Textile și Poligrafie, precum și cu teme din desenul de construcții.

S-a examinat studierea posibilității elaborării unei metodici similare la disciplina Geometrie descriptivă.

S-a constatat că utilizarea calculatorului pentru desenele plane și pentru modelarea spațială la *Geometria descriptivă* ar duce la schimbări considerabile în conceptul disciplinei și modificări ale conținutului teoretic al Curriculumului, precum și a numărului de ore pentru disciplină.

#### Bibliografie

- 1. https://knowledge.allbest.ru/programming/3c0b65625b3ac68b5d43a98521216c27\_0.html
- 2. Telinoi V. I., Ricikova A.V. Application of 3D modeling in lectures on descriptive geometry // In: *Bulletin of the MGSU*, 2014, no. 5, pp. 176-183. [in Russian]
- 3. Ermakov A. I. The role of volumetric modeling in the training of specialists for innovative engineering // In: Bulletin of the Samara State Aerospace University S.P. Korolev (National Research University), 2012, no. 3 (24), pp. 360-368. [in Russian]
- 4. Marinkin A. P. The use of three-dimensional graphic images in course design // In: *Studies of the Moscow State Technical University MAMI*, 2012, no. 2, pp. 325-327. [in Russian]
- 5. Engineering graphics and 3D modeling // In: *Youth scientific and practical conference*, *Novosibirsk*, *December 20 2017*, SGUGT: 2018, ISBN 978-5-907052-00-0. [in Russian]
- 6. Bertoline Gary R. Introduction to Graphics Communications for Engineers. McGraw-Hill, 2009, 257 p. ISBN 9780073522647.
- 7. https://dgnq.pstu.ru/conf2015/papers/72/
- 8. Gornov A. O. Basic engineering geometric and graphic training based on 3D modeling. Part 1 // In: *Problems of the quality of graphic training of students in a technical university: traditions and innovations. Materials of the IV International Scientific and Practical Internet Conference*. Perm, February March 2014. Publishing house of PSTU, 2014, pp. 213-222. [in Russian]
- 9. https://docplayer.com/38527559-Geometricheskaya-podgotovka-i-proektnoe-obuchenie.html
- 10. http://www.ng.sibstrin.ru/brest novosibirsk/2016/doc/048.pdf
- 11. Kheifets A. L. Comparison of methods of descriptive geometry and 3D computer geometric modeling in terms of accuracy, complexity and efficiency // In: *Bulletin of SUSU. Series "Construction and architecture"*, 2015, V. 15, no. 4, pp. 49–63. DOI: 10.14529/build150408 [in Russian]
- 12. Kheifets A. L. Application of computer graphics in the lecture course of descriptive geometry // In: 1st Regional Conference "Intelligent Information Technologies and Strategies in the System Organization of the Ural Region". Chelyabinsk, 1994, pp. 78-81. [in Russian]
- 13. https://vestnik.susu.ru/building/article/view/11546
- 14. https://drive.google.com/file/d/10Catud5T6cQ4D2fpiAZ7Z4VdfSX5Syzg/view -accesed 18.04.2022
- 15. Pleşcan T. Grafică inginerească, vol.1. Chişinău: Ed. Tehnica, UTM, 1996. 300 p. ISBN 5-7790-0327-0.
- 16. Bogolyubov S. K. Individual tasks for the course of drawing. Ed. Alliance, Moscow, 2007, 368 p. ISBN 978-5-903034-19-2. [in Russian]
- 17. Novikova N.N. Guidelines for the organization of independent work on the discipline Engineering graphics. Omsk, Ed. BPOU OO OPEK, 2016, 68 p. [in Russian]
- 18. Mironov B.G. and others. Collection of tasks on engineering graphics with examples of drawings on a computer. Moscow: Vyssh. School, 2007, 262 p. ISBN: 978-5-06-005665-5. [in Russian]
- 19. Munir M. Hamad, AUTOCAD 2022 3D Modeling. MERCURY LEARNING AND INFORMATION, 2021, 381 p. ISBN: 978-1-68392-727-3.
- 20. Dîntu S., Şuletea A. ş.a. Grafică inginerească asistată de calculator. Chişinău: Ed. Tehnica-UTM, 2019, 124 p. http://library.utm.md/carti\_scanate/loadFile.php?Tipografia/2022/Grafica-ingin-asist-calculator-Suport-curs\_DS.pdf
- 21. Şuletea A., Dîntu S., Bradu N., Anati S. Desen tehnic si infografică. Aplicații. Pentru studenții FEIE. Chisinau: Ed. Tehnica-UTM, 2017, 120 p. http://repository.utm.md/bitstream/handle/5014/15521/Desen\_tehnic\_Infografica\_Aplicatii\_DS.pdf?sequen ce=1&isAllowed=y
- 22. Dîntu S., Bradu N., Suletea A., Jandîc T., Mihailov L., Anati S. Computer technical drawing. –Chişinău. Ed. Tehnica-UTM, 2020, 157 p., ISBN 978-9975-45-658-6. [in Russian] http://repository.utm.md/bitstream/handle/5014/15148/DesenTehnicComp\_Indrumar\_Ru\_DS.pdf?sequence=1

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# REDESIGN FAMILY TOURISM VISION OF LOCAL GOVERNMENT

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**Abstract.** This research took place at Metro as one of the local governments in Lampung Province, Indonesia. There were some main visions of development in this region: educationbased, family tourism, social economic-based, and participative development. We focused on the family tourism vision of the local government to create the region as the tourism site for families. Meanwhile, there were some facts that Metro, geographically was not a large region and not many nature destinations to attract the tourists. It could be meant that there was a gap between the visions of the local government to implement the second vision. We did field study to observe and interview the related parties and reviewed some literature on tourism concept, family tourism, trend in family tourism business, and the local government policy on tourism. The result of our study show that the measurement of the regional tourism index in Metro has never been carried out, the tourism affairs is no longer completely relied on tourism business actors, but must be developed by involving all stakeholders. To sustain the tourism vision in Metro local government, it is needed to carry out tourism promotions in their regions, learning and coordinate with central government and other regions for managing the opportunity implementation on artificial tourism potential for family tourism business.

**Keywords:** family tourism, local government, tourism concept, vison, tourism policy.

Rezumat. Această cercetare a avut loc la Metro, fiind unul dintre guvernele locale din provincia Lampung, Indonezia. În această regiune au existat câteva viziuni principale de dezvoltare: bazată pe educație, turism de familie, dezvoltare social-economică și participativă. Noi ne-am concentrat pe viziunea turismului de familie a guvernului local pentru a crea regiunea ca site turistic pentru familii. Între timp, au apărut date că Metro, din punct de vedere geografic, nu era o regiune mare și nu erau multe destinații naturale care să atragă turiștii. S-ar fi putut întâmpla că exista un decalaj între viziunile guvernului local de a implementa a doua viziune. Pentru aceasta, am efectuat un studiu de teren pentru a observa și a intervieva părțile afiliate și am revizuit unele surse literare despre conceptul de turism, turismul de familie, tendințele în afacerile din turismul de familie și politica guvernului local în domeniul turismului. Rezultatul studiului arată că măsurarea indicelui de turism regional în Metro nu a fost niciodată efectuată, afacerile de turism nu se mai bazează în totalitate pe actorii din domeniul turismului, ci trebuie dezvoltate prin implicarea tuturor părților

interesate. Pentru a susține viziunea turistică în administrația locală Metro, sunt necesare promovări turistice în regiunile lor, coordonarea cu guvernul central și alte regiuni pentru gestionarea implementării oportunităților privind potențialul de turism artificial pentru afacerile de turism de familie.

Cuvinte cheie: turism de familie, administrație locală, concept de turism, viziune, politică turistică.

### Introduction

The vision of Metro local government region in Lampung Province of 2016 - 2021 is "Realizing Metro as an Education and Family Tourism Region with Economy Based on Participatory Development". Family tourism as one of the components on local government vision means that this region aspires to become a family tourism destination that is safe, comfortable, ethical, and contains educational elements for all ages and all group. The atmosphere of environmental will be built as a basis for family tourism and is expected to be able to provide a multiplier effect on the local economic conditions of the people in Metro region. The dynamic and comfortable conditions could be maintained the family tourism sector with great potential [1]. Therefore, the performance indicator in relation to achieving the vision of a family tourism site as stated in the 2016 - 2021 local government vision is the increasing in the number or frequency of tourist visits by families to this local region. Furthermore, there must be the policies of local government that include the affordability and availability of tourist destinations that could be impacted on: (a) the increase of local revenue from the tourism sector and (b) the community happiness.

Normatively, The Act of Law Number 10/2009 concerning Tourism emphasizes that tourism development needs to be increased to foreign exchange earnings and introduce the natural culture of the Indonesian as well as providing many employment and business opportunities. In the context of the implementation of this tourism policy in Metro local government, there is Metro Regional Act Number 11/2012 on the adoption of business in tourism sector. This regulation focuses on tourism licenses as well as entertainment. In addition to this, there is also Metro Regional Regulation Number 3/2015 concerning the Regional Tourism Development Master Plan of Metro Local Government from 2014-2033. This act stated that the vision of family tourism could be developed with the prerequisites of the right strategy.

Geographically, Metro is supported from the availability of public spaces and urban forests. However, there is a fact that Metro area is not too wide with no natural tourism objects as a tourist attraction compared to the most of regions in Lampung Province. The area, which in 2018 had a population of more than 134,682 people with a density of 2,223 people/km², is administratively divided into 5 sub-districts and 22 urban villages with a total area of only 68.74 km² or 6,874 hectares. In relation to factual conditions mentioned, we then see a gap between the local governments desires to make the area as a family tourism site with factual conditions on natural potential for tourist attraction for the sustainability of the family tourism site vision. Aside from the backdrop mentioned, we have formulated the research question in this study How is Metro' tourism index among local governments in Indonesia? How is the local governments' authority on tourism affairs in Indonesia? And How to sustain the family tourism vision in Metro? Meanwhile the purpose of our study was to explain the trends on tourism among local governments in Indonesia; the local governments' authority on tourism affairs in Indonesia, and describe the strategies to sustain family tourism vision of Metro local government.

# Literature Review Tourism Concept

Based our study, tourism has growing fast in the world for being popular recreational activity. Meanwhile, tourism has many purposes ranging from recreation, pilgrimage, family, to business either domestically or internationally. The historical side of a place is important to support tourism. This could promote the place to be alluring [2]. Metro in our study represented as the region with the historical background from Dutch Colonization Era. The history of this place was the heritage and important in tourism industry as the promotion of the place.

## **Family Tourism**

By looking at the reviews of some literatures on tourism, we narrow the focus to family tourism. Some researches discuss this as the element of social experience [3] from the interactions among family members to create bonding and strengthening family relationships [4]. The experience of holidays creates family engagement to build family capital [5]. The benefit from families are expanding family travels for tourism business sector because of the demand of holidays among families. The holidays offer many activities to break out from the routines as well as rebuild emotional strength, particularly among family members [6]. Currently, the regular family holidays have been mushrooming among many local governments. The contribution of family holidays enrich the role of tourism in human relationships in society [7]. Instead of social role, this also contributes to tourism business sector [8].

# **Trends in Family Tourism Business**

In our study, we pay attention to tourism industry market. Family refers to a market in tourism industry as the purposes for family tourism for promoting family bonds and togetherness. With the global mobility, there will be an increase in a broad travel and emerge in global family market. Based our study, family tourism businesses are increasing in the form of travel preparedness, tourism destination choices, and marketing campaigns to offer family members convenience in capturing many diverse needs for children and parents from different ages, background, as well as family structures [9].

# The Local Government Policy on Tourism

Local governments have historically played a key role in local and regional tourism development. The information flows model places government agencies, tourism organization and association across the top of the process, feeding information to and retrieving information from all other organizations in the system. Tourism business requires better understanding on complex decisions involve with more creative and innovative campaigns in family markets to boost engagement of young tourists [10].

Monitoring tourism planning on the process describes policy practices. This policy implementation links the government initiatives to actual outcomes. This is essential to observe tourism industry results from tourism plan and regulation of local government [11].

## **Methods**

This study used field study and many concepts from the theories with literature review technique and the data and information on related to the research. All the sources then analyzed to answer the research questions. Conceptual analysis is about the meaning of an

expression in different ways but the most straightforward providing a definition of the expression from the ordinary meaning of the dictionary. The further remarks need to be consider an aspect to be different from the ordinary concept with the analytical or criticism [12]. Theory supports qualitative analysis. Typically, we see theory as the general statement of connection among concepts [13].

Our study use literature review with following benefits ranging from distinguishing related concepts; identifying the relevant variables; linking theories in practical terms; designing research methods; to finding contradictions [14] as Frankel and Wallen (2006) stated on steps to conduct literature review: (a) defining the research problem; (b) finding secondary sources; (c) electing several general references; (d) formulating key words of problems; (e) finding the relevant primary sources; and (f) summarizing key options.

### **Results and Discussion**

## Tourism Trends and Index among Local Governments in Indonesia

Previously, the conducting analysis related to the Tourism Index in Metro Local Government is necessary to look at the study of the tourism index on a national scale. The competitiveness of Indonesian tourism has increased regularly. Regarding on tourism competitiveness report that Indonesia is almost getting the highest scale. In 2011, Indonesia was ranked 74th in the world with a score of 3.96. Indonesia's index value continued to increase in the following years. In 2019 Indonesia collected a score of 4.3 and was in the 40<sup>th</sup> position of the world. This report released by the World Economic Forum compares the competitiveness index among 140 countries. The indicators used to be measured are ecosystems, environment, business, policies, infrastructure, and natural and cultural resources. The Indonesian Tourism Index is referring to the concept of the Travel and Tourism Competitive Index which is adapted to conditions in Indonesia. Measurement of the index is based on statistical data to determine the tourism competitiveness index score among 505 districts/cities. Measurement of the perception index was also carried out on the 25 regions with the highest scores from the tourism assessment results of competitiveness index. This perception survey using the interview model aims to get the results of the competitiveness index measurement including community assessments related to tourism development in their respective regions.

The highest level of competitiveness of the Indonesian tourism industry is still dominated by the big cities. Denpasar is ranked the highest in Indonesia for index on. The aspects of the business-supporting environment, governance, and infrastructure are the main pillars of excellence for the capital city of Bali Province. The readiness of infrastructure, the support for the business environment, and the world-famous Bali have become the main support for Denpasar tourism development. Meanwhile, in terms of natural and artificial tourism potential, the position of this city is not as high as some other areas. The position as the center of the distribution of tourists is a blessing for Denpasar. An established business environment, the availability of several resources in particular human and information technology. These are the pillars that play the most role in building a supporting environment for tourism in this city. As a national tourism icon, Bali is an integral part of the national tourism promotion strategy. Denpasar tourism management is also important and cannot be separated from national tourism governance. Not surprisingly, the score on the aspect of city governance is quite high. The environmental aspects of supporting business and infrastructure are the entities that make Denpasar superior. In fact, in these two aspects,

Indonesia's position in measuring a similar index at the international level (Travel and Tourism Competitive Index) in 2015 was weak. Indonesia occupies the 75<sup>th</sup> and 80<sup>th</sup> positions with a score of 4.46 and 3.28, both on a scale of 7. Meanwhile in the Indonesia Tourism Index, Denpasar gets a score of 4.12 out of a scale of 5, exceeding Indonesia in comparison. The city of Surabaya is in the second place with a score of 3.74. As a business city, convention tourism activities or MICE (meetings, incentives, conferences, and exhibitions) make the most important contribution to the tourism industry in this local region.

Batam is in the third place with a score of 3.73. This city is integrated in the triangle of national tourism gateways with Bali and Jakarta benefits from its regional position as an entry point for foreign tourists, especially Singapore. The results of the Indonesia Tourism Index measurement is the gap between regions quite sharp for the aspects of supporting the tourism industry. Infrastructure is the main key to accessing tourist destinations. The pillars supporting this aspect are air, land and sea transportation infrastructure as well as tourist support infrastructure. These aspects actually show the highest level of disparity between regions. Some measurements show that the availability of tourism supporting infrastructure is still concentrated in big cities. Some regions with the top five rankings are Makassar, Bandung, Denpasar, Surabaya, and Palembang. As a connecting city to other cities and islands in Eastern Indonesia, Makassar has the most prominent strength for supporting tourism infrastructure.

The gap among regions is also reflected in the aspect of governance, especially the role of the government. As many as 67 percent of the regions scored below the national average. The top ranking in governance is occupied by Surakarta, Denpasar, Bandung, Makassar, and Yogyakarta. The supporting environment aspect summarizes the five pillars of the assessment, namely the business ecosystem, health facilities, labor, security, and technology infrastructures. The areas that have the highest scores are Denpasar, Sleman, Semarang, Surabaya, and Bantul. All the description could be seen from Figure 1.



**Figure 1.** Indonesia Tourism Index. *Source: Indonesia Tourism Index, 2020.* 

The tourism potential aspect consists of two assessment pillars, namely the natural tourism potential and the artificial tourism potential. Indonesia has very rich potential in almost all regions. Most of the regions that get a high rating on the aspect of tourism potential tend not to be supported by other aspects that in general they lack the competitiveness to attract tourists and develop the tourism industry. Sukabumi achieved the highest score in terms of tourism potential. Other regions in the top five rankings are Badung, Bogor, Wakatobi, and Raja Ampat.

In particular, the measurement of the regional tourism index in Metro has never been carried out, both in comparison with other regencies/cities in Lampung Province and in comparison with the city level in Indonesia. As a result, currently there is no official data from official institutions as a valid reference to assess the tourism index of the Metro area. The regional development performance data in the 2016 - 2020 and 2021 - 2026 related to some aspects of the regional tourism index assessment, namely the environmental aspects of supporting business, governance, infrastructure, and tourism potential –shown that there is a gap between Metro and other cities. Metro has not become a favorite city as a tourist destination (family) in Indonesia.

# The Local Government Authority on Family Tourism

In terms of the management and implementation of tourism affairs, the Local Government refers to the Law No. 10/2009 which confirms on tourism as local government's affairs. It emphasizes the coordination to govern tourism as long as there are no laws and regulations governing them. In terms of regulating and managing tourism affairs in and outside accordance with what has been stipulated in the legislation, it is an act that violates the law. According to the tourism law, the facilities to provide services could be from business entrepreneurs; local community as well as regional government. It actively involves the community, businessmen and the government (central/regional) with their respective duties, roles, rights and obligations.

Thus, regional regulations governing tourism in the local regions are no longer oriented to provide services to the business (entrepreneurs) by granting permits and administration of tourism activities carried out by tourism entrepreneurs. The government and local governments have a larger role and task in tourism development. This means that the tourism affairs is no longer completely relied on tourism business actors, but must be managed and developed based on a tourism development master plan prepared by involving all stakeholders. With the clear authority that has been stipulated in the law, the local government will form regional regulations to implement the authority that has been given by the law. The existence of a clear authority should not be overlapping with the regulations and the management of tourism. On the other hand, making regional regulations for managing tourism systematically will provide business and legal certainty for every tourism development stakeholder. By applying the directions and purposes on Law Number 10/2009, it is hoped for upgrading the growth particularly economic sector to alleviate poverty, preserving nature, promoting culture, and building the national image.

The implementation and management of tourism businesses must inevitably be managed professionally. This means that regional regulations regarding tourism can no longer merely pursue retribution control, but are in the form of regional regulations that provide a perspective for the development of the tourism business which is positioned to increase economic growth or eliminate poverty. Likewise, there is a legal order for the Local

Government to allocate a portion of the income obtained from the implementation of tourism activities for the benefit of nature and cultural preservation.

Family tourism means tourism that is safe, comfortable and contains educational elements that suitable for all ages and all groups, which can be the attraction of Metro. Family Tourism as the flagship program of the elected Mayor and Deputy Mayor for 2016-2021 is the second issue in the implementation of this five-year development. The comfort zone in Metro will be built as a support for family tourism and is expected to be able to provide a multiplier effect on the local economic conditions of the people of Metro. Based on the people's economy, it means that development in all fields is supported by an economic system, by providing broad opportunities for the community to participate. Development based on people's economy will be realized through local economic development, community empowerment in development, and utilization of local potential. Meanwhile, participatory development means that the implementation of development is carried out with public participation to realize good governance. The community will be the planner, implementer, and at the same time to be controller.

# The Sustainability of Family Tourism Vision in Metro

It must be recognized that the government is one of the stakeholders of tourism development and has a strategic role to determine the direction and targets of tourism development. This role is central in the era of regional autonomy, the authority in planning, implementing, and managing tourism is handed over by the central government to the regions. The implications are very broad, especially on the readiness of the regional bureaucracy to implement the new authority. Another implication is that the success of national tourism development ultimately depends on the ability of local bureaucracies to manage tourism resources.

The implementation of a tourism affairs cannot be separated from the optimal use of resources and capital which upgrading regional income, extending business opportunity, promoting regional development, and presenting tourists tours. Meanwhile, there are several aspects that must be considered:

- Physical point of views
   Forming facilities and infrastructures at tourist destinations.
- 2. In terms of non-physical point of view
  - a. Improving services to visitors, by increasing human resources management.
  - b. Bringing up the cultures that exist in the area that can be enjoyed by the visitors.
  - c. Paying attention to something that is typical in the area, such as local specialties and handicrafts.

Besides the development of tourism objects, local governments also need to carry out tourism promotions in their regions. By the promotion, people or tourists will get to know about the tourist objects in the area, as well as about the advantages of an area. By promoting the tourism site, it is hoped that the area can be known by the wider community, both about its beauty, culture, and uniqueness. The results of interviews and documentation studies show that the process of organizing a tourist site is deepened on several important principles:

- a. The capital aspect is needed as the amount of funds obtained and calculated with the value in the form of money.
- b. The benefits aspect of organizing the tourism puts forward the t benefits that will be obtained from organizing a tourist site. Therefore, the implementation of tourism sectors in

local economy needs improvements to make higher income, evolve job opportunities, increase local government revenue as well as foreign exchange earnings.

## **Conclusions**

In particular, the measurement of the regional tourism index in Metro has never been carried out, both in comparison with other regencies/cities in Lampung Province and in comparison with the city level in Indonesia. Metro has not become a favorite city for tourism family among regions in Indonesia because the regulation are no longer oriented to provide services to the business (entrepreneurs) by granting permits and administration of tourism activities carried out by tourism entrepreneurs based our study. This means that the tourism affairs is no longer completely relied on tourism business actors, but must be developed by involving all stakeholders. With the clear authority that has been stipulated in the law, the local government will form regional regulations to implement the authority that has been given by the law. The existence of a clear authority should not be overlapping with the regulations and the management of tourism. On the other hand, making regional regulations for managing tourism systematically will provide business and legal certainty for every tourism development stakeholder.

To sustain the tourism vision in Metro local government, the local government needs to carry out tourism promotions in their regions, coordinate and learn with central government and other regions for managing the opportunity implementation on artificial tourism potential for family tourism business.

### References

- 1. Middleton V. T. (2017). Arthur John Burkart–pioneer scholar in tourism studies. In: *Anatolia*, *28*(1), 116-121. https://doi.org/10.1080/13032917.2016.1168686
- 2. Harteam J. A., Acebron S. B. F., Alvarez Z. M. I., Delen C. A. A., Espiritu C. M. C., Villanueva M. A. G., & Borbon J. C. (2017). Factors Affecting Participation to Domestic Tourism Perceived by Government Officials. In: *Asia Pacific Journal of Multidisciplinary Research*, *5*(4). http://research.lpubatangas.edu.ph/wp-content/uploads/2019/08/APJMR-2017.5.4.3.09
- 3. Larsen J. R. K. (2013). Family flow: The pleasures of "being together" in a holiday home. In: *Scandinavian Journal of Hospitality and Tourism*, *13*(3), 153-174. https://doi.org/10.1080/15022250.2013.808523
- 4. Minnaert L., Maitland R., & Miller G. (2009). Tourism and social policy: The value of social tourism. In: *Annals of Tourism Research*, *36*(2), 316-334. https://doi.org/10.1016/j.annals.2009.01.002
- 5. Yeoman I. (2009). *Tomorrow's tourist: scenarios & trends*. Routledge.
- 6. Hazel N. (2005). Holidays for children and families in need: An exploration of the research and policy context for social tourism in the UK. In: *Children & Society*, 19(3), 225-236. https://doi.org/10.1002/chi.838
- 7. Putnam R. D. (2000). Bowling alone: The collapse and revival of American community. Simon and schuster.
- 8. Hall C. M. (2011). Consumerism, tourism and voluntary simplicity: We all have to consume, but do we really have to travel so much to be happy? In: *Tourism recreation research*, *36*(3), 298-303. https://doi.org/10.1080/02508281.2011.11081675
- 9. Schänzel H. A., & Yeoman I. (2014). The future of family tourism. In: *Tourism Recreation Research*, *39*(3), 343-360. https://doi.org/10.1080/02508281.2014.11087005
- 10. Backer E. (2007). VFR travel: An examination of the expenditures of VFR travellers and their hosts. In: *Current Issues in Tourism*, *10*(4), 366-377. https://doi.org/10.2167/cit277.0
- 11. Krutwaysho, O., & Bramwell, B. (2010). Tourism policy implementation and society. In: *Annals of Tourism Research*, *37*(3), 670-691. https://doi.org/10.1016/j.annals.2009.12.004
- 12. Valchev H. I. (2018). What Is Conceptual Analysis?. In: *Balkan Journal of Philosophy*, *10*(2), 131-142. https://www.ceeol.com/search/article-detail?id=699069
- 13. Ezzy, D. (2013). Qualitative analysis. Routledge.
- 14. Onwuegbuzie A. J., Leech N. L., & Collins K. M. (2012). Qualitative analysis techniques for the review of the literature. In: *Qualitative Report*, *17*, 56. https://eric.ed.gov/?id=EJ981457
- 15. Fraenkle J. R., Wallen N. E., & Hyun H. H. (2006). How to design and evaluate research in education.

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# REORGANIZATION OF THE NATURAL GAS DISTRIBUTION COMPLEX OF JSC "MOLDOVAGAZ"

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**Abstract.** For the reorganization of the gas distribution companies affiliated to JSC "Moldovagaz", a bibliographic study of the experience of foreign countries in this field was carried out, analyzing the production, financial and economic conditions of the activity of the mentioned companies. In order to improve the organizational structure of the 12 existing natural gas distribution companies, the analysis of technical and economic indicators and their evaluation were performed as well as the development of three management models of the natural gas distribution system. The comparative analysis of the functions and responsibilities of the management of natural gas distribution companies as well as the organizational structural options was performed, the target structure of the single gas distribution company was analyzed. The advantages and disadvantages of each reorganization model were analyzed so that in the end it was determined and recommended the optimal model.

**Keywords:** company staff, distribution companies, natural gas networks, performance, reorganization, subsidiaries.

**Rezumat.** Pentru reorganizarea companiilor de distribuție gaze afiliate SA "Moldovagaz" a fost efectuat studiul bibliografic al experienței țărilor străine în acest domeniu, analizate condițiile de producere, financiare și economice ale activității companiilor menționate. În scopul îmbunătățirii structurii organizatorice a celor 12 companii existente de distribuție a gazelor naturale s-a realizat analiza indicatorilor tehnico-economici și evaluarea acestora, s-au elaborat trei modele de gestionare a sistemului de distribuție. A fost efectuată analiza comparativă a funcțiilor și responsabilităților managementului companiilor de distribuție a gazelor naturale, a opțiunilor structurilor organizatorice și a structurii-țintă a companiei unice de distribuție a gazelor naturale. Avantajele și dezavantajele fiecărui model de reorganizare au fost analizate astfel, încât în final s-a determinat și recomandat modelul optimal.

**Cuvinte-cheie:** companii de distribuție, filiale, performanță, reorganizare, rețele de gaze naturale, state de personal.

## Introducere

Cele 12 întreprinderi de distribuție gaze naturale, afiliate SA "Moldovagaz" (Figura 1), exploatează 23 803,5 km conducte de distribuție, dintre care 15,7% sunt de presiune înaltă, 26,2% – de presiune medie și 58,1% – de presiune joasă, pe care sunt amplasate 33 781 stații de reglare–măsurare (SRM) de diferite modele și 870 noduri de măsurare a volumelor de gaze. De rând cu aceasta, operatorii sistemelor de distribuție exploatează 739,5 mii contoare de gaze montate pe instalațiile de utilizare, dintre care peste 728,2 mii (98,5%) – la consumatorii casnici.

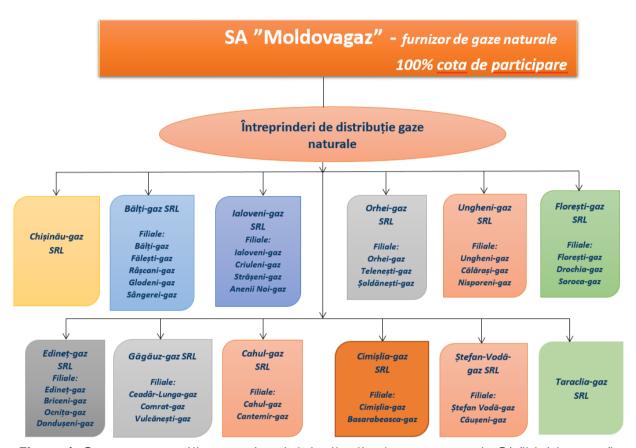


Figura 1. Structura actuală a complexului de distribuție gaze naturale SA "Moldovagaz".

Analiza demonstrează că întreprinderea "Ialoveni-gaz" SRL și "Chișinău-gaz" SRL exploatează rețele cu cea mai mare lungime - 15,7% și respectiv 14,2% din lungimea totală a rețelelor de distribuție, iar "Taraclia-gaz" SRL - o rețea de distribuite cu cea mai mică lungime - 2,7%. La nivel de filiale, rețelele cu cea mai mare lungime sunt exploatate de filialele "Anenii Noi-gaz" și "Cahul-gaz" – respectiv 5,8% și 5,6% din lungimea totală a rețelelor de distribuție, iar cele mai scurte rețele sunt exploatate de filialele "Cantemir-gaz" - 0,8%, "Glodeni-gaz" - 0,96%, "Basarabeasca-gaz" - 1,1% și "Dondușeni-gaz" - 1,2%.

Cota parte de 60,4% din lungimea totală a rețelelor de distribuție nu se află în proprietatea întreprinderilor de distribuție afiliate SA "Moldovagaz". Acestea sunt rețele de distribuție gaze construite din mijloacele financiare bugetare de diferite niveluri, cât și din contul persoanelor juridice și fizice. Rețelele menționate, conform [2], au fost transmise întreprinderilor de distribuție la deservire tehnică pentru întreținerea lor în stare tehnică funcțională în vederea asigurării consumatorilor cu gaze naturale. Cele mai mari cote de rețele la deservirea tehnică sunt la "Edineț-gaz" SRL - 81,6% și "Cahul-gaz" SRL - 76,1%, iar cea mai mică cotă fiind la "Taraclia-gaz" SRL - 27,7%.

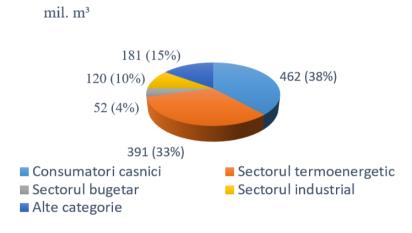
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Se remarcă faptul că rețelele de distribuție anual se extind. Astfel, în ultimii 5 ani au fost construite și puse în operare rețele noi de distribuție gaze naturale cu lungimea totală 1 804,6 km, creșterea lungimii constituind 7,6%, dintre care 711,6 km sau 39,4% din lungimea extinderii rețelei în perioada de referință au fost construite din contul întreprinderilor de distributie.

La rețelele de distribuție ale SA "Moldovagaz" sunt racordați 773,055 mii consumatori, dintre care 98,1% - consumatori casnici. Cei mai mulți consumatori sunt racordați la rețelele "Chișinău-gaz" SRL - 43,7% din numărul de consumatori SA "Moldovagaz", "Ialoveni-gaz" SRL - 11,0% și "Bălți-gaz" SRL - 8,4%. Cel mai mic număr de consumatori este racordat la rețelele "Taraclia -gaz" SRL - 1,7%. La nivel de filiale cel mai mare număr de consumatori este deservit de filiala "Bălți-gaz" - 5,8% din numărul de consumatori ai SA "Moldovagaz" și 69,1% din cel din zona de operare "Bălți-gaz" SRL. Cel mai mic număr de consumatori este înregistrat la filiala "Cantemir-gaz" - 0,4% din numărul de consumatori SA "Moldovagaz". E de menționat că numărul de consumatori crește din an în an. Astfel, pe parcursul ultimilor 5 ani indicele menționat a crescut cu 68,0 mii sau 8,8%, cea mai semnificativă creștere fiind înregistrată în zona de operare "Orhei-gaz" SRL - 14,1%, iar cea mai scăzută – la "Taraclia-gaz" SRL - 1,3% din motiv că gazificarea potențialilor consumatori în această zonă de operare de fapt este finalizată.

În anul 2021, volumul de gaze naturale distribuit consumatorilor SA "Moldovagaz" a alcătuit 1 205,1 mil m³, repartiția lui pe categorii de consumatori fiind prezentată în Figura 2.

Din volumul de gaze naturale distribuit în 2021 consumatorilor SA "Moldovagaz" (1 151,3 mil m³) și SRL "Transautogaz" (53,8 mil m³) 54,9% (661,8 mil m³) revine consumatorilor



**Figura 2.** Repartiția volumelor de gaze naturale furnizate pe categorii de consumatori în anul 2021.

mun. Chişinău. Volumul de gaze distribuit de către ceilalți 11 operatori de distribuție, care deservesc 85,8% din lungimea totală a rețelelor de distribuție și 56,3% din numărul de consumatori ai SA "Moldovagaz", alcătuiește 543,2 mil m³ sau 45,1% din volumul de gaze distribuit pe țară.

Volumul distribuit variază semnificativ de la întreprindere la întreprindere, de exemplu: la "Taraclia-gaz" SRL - alcătuiește 15,3 mil m³, iar la "Chișinău-gaz" SRL - 661,8 mil m³, ceea ce constituie un raport de 1/43. Diferență mare între volumele de gaze distribuite se observă și în filiale, de exemplu: la "Cantemir-gaz" - 2,8 mil m³, iar "Bălți gaz" - 68,8 mil m³ sau de 24,6 ori mai mult.

În general, indicii de referință ce caracterizează activitatea economică a întreprinderii de distribuție (numărul de consumatori, lungimea rețelei de distribuție, numărul de SRM și noduri de evidență, volumul gazelor distribuite etc.) se deosebesc semnificativ de la întreprindere la întreprindere și de la filială la filială.

# Abordarea Problemei

Structura existentă a complexului de distribuție gaze cu predominarea obiectivelor de infrastructură, transmise întreprinderilor de distribuție afiliate SA "Moldovagaz" la deservire tehnică, cât și uzura sporită a fondurilor fixe creează un oarecare risc în asigurarea calității serviciilor de distribuție gaze naturale prestate. E de menționat că întreprinderile de distribuție care au cote semnificative de rețele primite la deservire tehnică comportă și un risc sporit de deteriorare a rețelelor, însoțit de întreruperea livrărilor de gaze. Acest risc este determinat de faptul că deservirea tehnică a rețelelor cu instalațiile aferente respective, conform [4], nu include lucrări de reconstrucție, reparații capitale, modificare de caracteristici tehnice, înlocuire a elementelor cu parametri nesatisfăcători sau ieșite din funcțiune în urma avariilor sau a altor circumstanțe, ce nu depind de întreprinderile de distribuție. Deci, fragmentarea fondurilor fixe și a surselor de investiții în 12 întreprinderi de distribuție nu permite direcționarea lor către obiectele care au necesitate stringentă, cât și pentru proiecte investiționale eficiente. Totodată, se remarcă faptul că nivelul mediu de uzură a rețelelor de distribuție constituie 45%, iar în unele întreprinderi este destul de înalt - depășește 62% și acesta este condiționat de cota sporită a rețelelor din oțel cu durata de exploatare peste 20 ani.

Principiul teritorial-administrativ de formare a structurii întreprinderilor de distribuție gaze (filialele tuturor SRL) și etnic în unele cazuri ("Taraclia-gaz" SRL, "Găgăuz-gaz" SRL), nivelul diferit de dezvoltare economică a regiunilor țării, numărul diferit de populație din zonele stabilite de distribuție gaze naturale condiționează repartiția neuniformă a indicilor de prestări servicii, generând în particular o diferenta considerabilă în lungimi ale conductelor și număr de consumatori deserviți, cât și în volume de distribuție gaze naturale. De aceea, nivelul si conditiile de activitate a celor 12 operatori de distributie, fiind în functie de nivelul social-economic de dezvoltare a regiunii, în mare măsură diferă de la întreprindere la întreprindere. Această situație este reprezentată prin indicii specifici distincți de activitate a întreprinderilor, de exemplu: volumul mediu de gaze naturale distribuite printr-un km de conductă variază de la 12,8 mii m³/an la "Cimișlia-gaz" până la 45,9 mii m³/an SRL la "Bălţigaz" SRL și 185,1 mii m³/an la "Chișinău-gaz" SRL, constituind rapoarte respectiv de 1/4,1 și 1/14,5, iar volumul mediu de gaze naturale distribuite unui consumator casnic în întreprinderi similare variază de la 531 m³/an ("Cimişlia-gaz" SRL) la 767m³/an ("Ialoveni-gaz" SRL) sau de 1,45 ori mai mult. Considerabil diferă și pierderile specifice de gaze naturale în retelele de distribuție și instalațiile de utilizare: la "Ștefan Vodă-gaz" SRL și "Orhei-gaz" SRL pierderile de gaze pe 1 km de rețea variază de la 0,45 la 0,61 mii m<sup>3</sup>/an în raport cu 1,05 mii m<sup>3</sup>/an la "Chiṣinău-gaz" SRL, 1,11 mii m³/an - la "Ialoveni-gaz" SRL și 1,67 mii m³/an - la "Găgăuz-gaz" SRL. Aceeasi situatie se înregistrează și în raportul dintre alti indici specifici: lungimea rețelelor, numărul de SRM, numărul de consumatori etc.

Totodată, se remarcă faptul că cel mai important dintre indicii menționați este diferența semnificativă dintre cheltuielile specifice la 1000 m³ gaze distribuite, indice care direct influențează nivelul tarifelor pentru serviciile de distribuție prestate de operatori utilizatorilor de rețea. Prin urmare, cheltuielile specifice la "Taraclia-gaz" SRL constituie 2733,8 lei/1000m³, la "Cimişlia-gaz" SRL – 2683,1 lei/1000m³, la "Ștefan Vodă-gaz" SRL - 2580,9 lei/1000m³, iar la "Chişinău-gaz" SRL - 434,3 lei/1000m³, în celelalte întreprinderi variază de la 1165,5 lei/1000m³ ("Bălți-gaz" SRL) până la 2152,8 lei/1000m³ ("Găgăuz-gaz" SRL).

Astfel, reieșind din cerințele [3] și nivelul diferit de cheltuieli al companiilor de distribuție, cu evidența faptului că SA "Moldovagaz" este furnizor unic în Republica Moldova, în vederea aplicării prețurilor unice de furnizare gaze pe țară pentru categoriile distincte de

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consumatori, până la momentul actual ANRE aprobă 3 tarife medii de distribuție, respectiv, pentru serviciile prestate prin rețelele de presiune înaltă, medie și joasă pentru întreg sistemul de distribuție SA "Moldovagaz". Pentru acoperirea cheltuielilor fiecărei întreprinderi, în baza împuternicirii delegate de ANRE, SA "Moldovagaz" stabilește a câte trei tarife diferențiate pentru fiecare întreprindere, în total 36 tarife pentru serviciile de distribuție gaze naturale din contul prețului de furnizare, care diferă semnificativ între ele, cele mai joase fiind pentru "Chișinău-gaz" SRL, iar cele mai mari - pentru "Ștefan Vodă-gaz" SRL, raportul între ele fiind de 1/7,86.

Cu punerea în aplicație a [5], care liberalizează piața și reieșind din faptul că fiecare consumator are dreptul să-și aleagă furnizorul, metoda de stabilire a tarifelor diferențiate creează riscuri pentru SA "Moldovagaz" de pierdere a consumatorilor în zonele cu tarife joase de distribuție și în primul rând a consumatorilor mari din zona de distribuție "Chișinău-gaz" SRL, care va conduce la pierderea veniturilor și creșterea prețului la gaze pentru alte categorii de consumatori protejati din zonele de distributie a celorlalti operatori de retea.

În legătură cu aceasta, este necesară centralizarea patrimoniului, veniturilor și cheltuielilor, formarea unei surse unice de finanțare și investiții bazată pe criterii de eficiență economică și oportunități. Aceste principii pot fi realizate doar prin crearea unei întreprinderi unice de distribuție gaze naturale pe întreg teritoriul țării.

# Analiza Experienței de Separare și Reorganizare a Întreprinderilor de Distribuție Gaze Naturale în Țările Uniunii Europene

În conformitate cu [1], operatorilor sistemelor de distribuție gaze naturale (OSD) le sunt impuse cerințe referitor la separare, care obligă statele să asigure separarea întreprinderilor de distribuție gaze naturale vertical integrate (ÎVI), conform căreia OST trebuie să fie independent juridic în adoptarea deciziilor.

Această regulă însă nu prevede obligațiuni concrete de posesie a activelor de distribuție în raport cu ÎVI.

Indiferent de faptul că modelul funcțional de bază al tuturor OSD în general este similar, există diferențe în cantitate, mărime, caracteristici tehnice și profilul de activitate a OSD, care se reflectă asupra regimului de separare.

Conform datelor Consiliului regulatorilor europeni în domeniul energetic, numărul de OSD variază de la țară la țară, cu predominarea majorității OSD, care deservesc un număr de consumatori sub 100 mii (Tabelul 1).

Datele prezentate în Tabelul 1 reflectă situația în Europa privind existența diferenței în numărul de OSD, care poate fi explicată prin motive istorice, politice și geografice. Unele state-membre (Austria, Franța, Croația, Danemarca, Estonia, Germania, Ungaria, Italia, Lituania, Polonia, România, Slovenia, Spania, Slovacia și Suedia) folosesc excepții în legislația națională referitor la OSD, care deservesc sub 100 mii consumatori.

În unele țări, pragul admisibil se stabilește sub valoarea 100 mii indicată în [1]. În majoritatea statelor membre, cu excepția Cehiei, Danemarcei, Franței, Portugaliei, Sloveniei și Greciei, OSD au obținut o independență absolută în limitele Planului financiar aprobat sau a altui instrument financiar echivalent.

Tabelul 1

# Numărul de OSD activi în tările UE

|   | Denumirea țării |        |       |           |         |          |        |          |                   |        |         |        |          |           |         |            |         |          |        |        |        |
|---|-----------------|--------|-------|-----------|---------|----------|--------|----------|-------------------|--------|---------|--------|----------|-----------|---------|------------|---------|----------|--------|--------|--------|
| Informația despre<br>OSD                                      | Austria         | Belgia | Cehia | Danemarca | Estonia | Finlanda | Franța | Germania | Marea<br>Britanie | Grecia | Ungaria | Italia | Lituania | Luxemburg | Polonia | Portugalia | România | Slovenia | Spania | Suedia | Olanda |
| Total<br>OSD  | 20              | 18     | 86    | 4         | 26      | 4        | 25     | 720      | 31                | 3      | 11      | 229    | 6        | 3         | 35      | 11         | 41      | 16       | 26     | 5      | 8      |
| OSD cu<br>numărul<br>de<br>consu-<br>matori<br>sub 100<br>mii | 14              | 8      | 80    | 2         | 26      | 24       | 22     | 640      | 3                 | 2      | 6       | 195    | 5        | 3         | 29      | 7          | 39      | 16       | 11     | 5      | 1      |

# Soluții de Reorganizare a Complexului de Distribuție Gaze a SA "Moldovagaz"

Pentru reorganizarea complexului de distribuție gaze naturale SA "Moldovagaz", în temeiul cerințelor [1, 3] și a practicilor [6-10], s-au elaborat trei modele structurale diferite de constituire a unei întreprinderi unice de distribuție în baza a 12 întreprinderi existente, care s-au fundamentat din punct de vedere organizatoric, economic și juridic. Întreprinderea unică de distribuție gaze naturale se prevede a fi creată în baza "Chișinău-gaz" SRL, cea mai mare întreprindere a complexului de distribuție gaze naturale SA "Moldovagaz", la care vor adera 11 întreprinderi active de distribuție. Astfel, întreprinderea unică de distribuție, conform modelelor structurale elaborate, include:

- în primul model 35 filiale raionale de exploatare a rețelelor de distribuție gaze;
- în al doilea model 11 filiale regionale de exploatare a rețelelor de distribuție gaze, în componenta cărora se prevăd 24 directii raionale/zonale;
  - în al treilea model 11 direcții regionale de exploatare și 34 sectoare raionale.

Primul model prevede menținerea a 34 filiale existente, care vor rămâne active în continuare ca structuri raionale de prestări servicii de distribuții și suplimentar va fi creată filiala "Taraclia-gaz" în baza SRL "Taraclia-gaz". Structura organizatorică este reprezentată în Figura 3.

Modelul II se deosebește de modelul I prin crearea în baza a 11 întreprinderi existente de distribuție a 11 filiale, iar în baza a 24 de filiale, amplasate actualmente în afara raioanelor/municipiilor de plasament a întreprinderilor de distribuție, se prevede a crea direcții raionale de distribuție, care vor organiza deservirea tehnică a rețelelor și procesul complex de distribuție gaze naturale consumatorilor finali. Structura organizatorică este reprezentată în Figura 4.

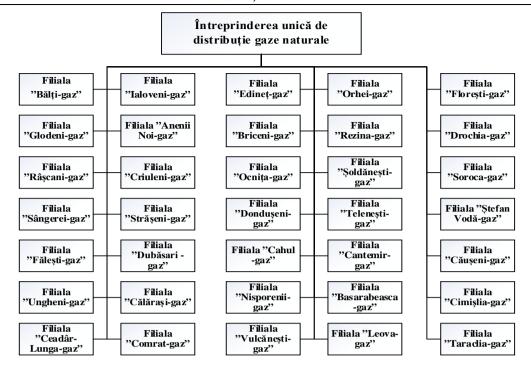
Modelul III prevede crearea a 11 direcții regionale de exploatare în locul celor 11 întreprinderi de distribuție existente și în componența lor a 24 sectoare de exploatare (Figura 5).

Se remarcă faptul că fiecare dintre cele trei modele elaborate au avantaje și dezavantaje.

Analiza avantajelor reorganizării în raport cu situația existentă permite a constata că crearea întreprinderii unice de distribuție pe întreg complexul de distribuție SA "Moldovagaz", indiferent de modelul structural elaborat, va asigura:

- consolidarea tuturor resurselor patrimoniale, financiare și umane cu utilizarea lor eficientă, optimizarea proceselor de întreținere a rețelelor la nivel de SRL;

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**Figura 3.** Schema globală a structurii întreprinderii unice de distribuție gaze naturale (modelul I).

- crearea unui centru unic de gestionare și monitoring a activității de distribuție gaze naturale pe țară în locul a 12 întreprinderi actuale;
- concentrarea mijloacelor investiționale, măsură care va permite aplicarea unei politici investiționale unice și realizarea proiectelor investiționale atractive eficiente;
- optimizarea structurii manageriale la nivel de întreprindere prin reducerea unei trepte de management în 11 întreprinderi de distribuție existente, respectiv a numărului de personal și a cheltuielilor pentru întreținerea acestora, excluderea dublării funcțiilor la nivelul aparatului actual de conducere;
- stabilirea tarifelor unice pentru distribuția gazelor naturale în număr de 3 pentru fiecare treaptă de presiune (înaltă, medie și joasă) pe întreg complexul de distribuție SA "Moldovagaz" în loc de 36 tarife utilizate actualmente, excluderea subvențiilor încrucișate între întreprinderi și asigurarea activității profitabile;
- excluderea riscului insolvenței întreprinderilor care au capital propriu negativ sau care se află sub amenințarea creării capitalului negativ, asigurând în așa mod protecția intereselor proprietarului.

Analogic se constată unele dezavantaje, indiferent de modelul examinat de reorganizare:

- sunt necesare anumite cheltuieli și timp pentru efectuarea reorganizării;
- în primul an de reorganizare este necesară reducerea unei părți din personal, care este însoțită de cheltuieli suplimentare pentru retribuirea plăților salariale conform legislației.

De rând cu aceasta sunt evidente și unele dezavantaje specifice fiecărui model, de exemplu pentru modelul I se remarcă:

- nivel insuficient de operativitate în adoptarea deciziilor și control asupra activității a 35 filiale, majorarea semnificativă a numărului de personal, a cheltuielilor în oficiul central, a timpului pentru planificare, colectare și analiză a rapoartelor și a informației necesare;

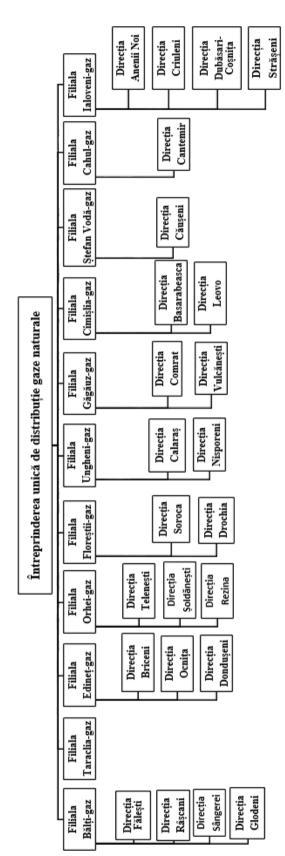
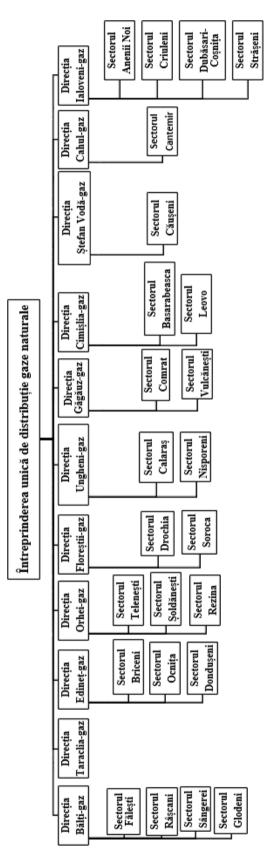


Figura.4. Schema globală a structurii întreprinderii unice de distribuție gaze naturale (modelul II).



**Figura 5.** Schema globală a structurii întreprinderii unice de distribuție gaze naturale (modelul III).

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- se menține un număr mare de filiale de diferite dimensiuni, cu diferite lungimi de rețele și volume de distribuție, respectiv diferit nivel de cheltuieli de întreținere și care presupun complexitate în gestionare și monitoring din partea oficiului central.

Realizarea modelului II permite a obține suplimentar unele avantaje, inclusiv posibilitatea:

- reducerii numărului de filiale de la 34 la 11 și totodată reducerea de 3 ori a numărului de centre de responsabilitate pentru activitatea de distribuție;
- de reducere a aparatului de conducere a 23 filiale și în așa mod să asigure micșorarea suplimentară a cheltuielilor pentru întreținerea lor;
- optimizării structurii manageriale a verigii manageriale la nivel de filială de exploatare.

Realizarea modelului III permite a atinge scopurile urmărite în I și al II model, dar întro măsură mai mare, suplimentar având un șir de avantaje, inclusiv posibilitatea:

- reducerii filialelor și astfel asigurarea lichidării a două trepte de management și a numărului de centre de responsabilitate pentru distribuția gazelor naturale;
- micșorării numărului de personal în aparatul de conducere a filialelor și astfel de asigurat micșorarea cheltuielilor pentru întreținerea lor;
- concentrării proceselor de planificare, întreținere a rețelelor, prestări servicii de distribuție, control și rapoarte la nivelul unui SRL, optimizarea și automatizarea lor, utilizarea mai efectivă a tuturor resurselor;
- asigurării operabilității în adoptarea deciziilor și responsabilității pentru rezultatele activității, cât și menținerii controlului operativ asupra direcțiilor regionale de exploatare;
- creării unui centru unic pentru dezvoltarea complexului de distribuție gaze naturale, realizării cu puterile proprii a unor proiecte investiționale și prestări suplimentare de servicii atât potențialilor consumatori, cât și consumatorilor finali, fapt care va permite utilizarea mai eficientă și amplă a resurselor, obținerea în rezultat a veniturilor și respectiv a beneficiului suplimentar.

Astfel, în baza comparației avantajelor și dezavantajelor modelelor examinate și reieșind din practica internațională de fondare a întreprinderilor de distribuție (aria de activitate, lungimea rețelelor, numărul de consumatori și altele) în calitate de model optim a fost ales modelul III, care prevede crearea unei întreprinderi unice de distribuție gaze cu 11 direcții regionale de distribuție gaze.

## Concluzii

Reorganizarea complexului de distribuție gaze naturale SA "Moldovagaz" și optimizarea structurii lui organizatorice prin crearea întreprinderii unice de distribuție gaze cu 11 direcții regionale de distribuție gaze va permite:

- a stabili o politică tarifară și de prețuri unică pe țară prin excluderea impedimentelor, care generează în zonele existente de operare diferite cheltuieli specifice la distribuția a 1000 m³ gaze naturale consumatorilor finali și care în final se răsfrânge asupra procesului de formare a tarifelor;
- reabilitarea, reconstrucția, renovarea și modernizarea rețelelor de distribuție gaze, care au uzură sporită și necesită investiții considerabile în infrastructura existentă, în baza unei politici eficiente de prestări servicii și de investiții în sfera menționată;

- sporirea eficienței managementului fluxurilor financiare prin concentrarea mijloacelor financiare ale întreprinderilor de distribuție existente, care la rândul său exclude dificultățile în procesul de gestionare efectivă a fluxurilor menționate;
- îmbunătățirea situației financiare prin consolidarea activelor patrimoniale și financiare, minimizarea/evitarea plăților suplimentare fiscale pe tot complexul de distribuție al SA "Moldovagaz" (taxa pe valoare adăugată și a impozitului pe beneficiu), cât și optimizarea proceselor operaționale/prestări servicii, utilizarea eficientă a resurselor financiare, materiale, umane și altele pentru recuperarea pierderilor financiare din anii precedenți;
- optimizarea și perfecționarea structurii manageriale prin reducerea unei trepte de management, dirijarea operativă și eficientă a proceselor operaționale pentru asigurarea distribuției eficiente și sigure a gazelor naturale consumatorilor finali, excluderea dublării unor funcții manageriale și a surplusului de personal existent pentru planificare, evidență și control în activitatea celor 12 întreprinderi de distribuție existente și a 34 filiale ale lor;
- utilizarea efectivă a tehnologiilor informaționale avansate, care presupune implementarea sistemului unic automatizat performant pentru evidența gazelor naturale distribuite consumatorilor, cât și a sistemului unic automatizat pentru evidență și control asupra activității pe verticală a subdiviziunilor întreprinderii unice de distribuție gaze naturale, reducerea în continuare a personalului și respectiv a cheltuielilor, corelate cu această activitate, sporirea operativității decizionale și operaționale;
- optimizarea cheltuielilor care prevede diminuarea cheltuielilor medii anuale pentru retribuirea muncii și întreținerea personalului întreprinderii de distribuție, pentru activitatea operațională, reparații și întreținere a rețelelor de gaze cu minimum 87 mil lei. Astfel, va fi asigurată eficiența maximă a activității complexului de distribuție gaze naturale cu cheltuieli minime și astfel va fi obținut beneficiul corespunzător, care va asigura în perioadele ulterioare stingerea consecutivă a pierderilor financiare acumulate de întreprinderile de distribuție în anii precedenți.

### **Bibliografie**

- 1. Directiva 2009/73/CE din 13 iulie 2009 privind normele comune pentru piața internă în sectorul gazelor naturale și de abrogare a Directivei 2003/55/CE. https://eur-lex.europa.eu.
- 2. Hotărârea Guvernului Republicii Moldova nr.683 din 18.06.2004 "Cu privire la aprobarea Regulamentului referitor la ordinea de transmitere a rețelelor de gaze pentru deservirea tehnică a întreprinderilor de gaze afiliate SA "Moldovagaz".
- 3. Legea cu privire la gazele naturale nr.108 din 27.05.2016.
- 4. Metodologia de calculare, de aprobare și de aplicare a tarifelor reglementate pentru serviciul de distribuție a gazelor naturale, aprobată prin Hotărârea CA ANRE nr.443 din 24.11.2020.
- 5. Regulile pieței gazelor naturale aprobate prin Hotărârea CA ANRE nr.534/2019 din 27.12.2019.
- 6. Legal Affairs Committee Implementation of TSO and DSO Unbundling Provisions Update and Clean Energy Package Outlook CEER Status Review Ref: C18-LAC-02-08 14 June 2019. https://www.ceer.eu/unbundling-report.
- 7. Mumović Milka. Energy Community Distribution System Operator Initiative. https://energy-community.org.
- 8. Unified Service Center. https://gazoraspredelenie.gazprom.ru [in Russian].
- 9. Report on activities in the field of sustainable development of JSC GAZPROM, http://sustainability.gazrromreport.ru/fileadmin/f/archive/2008-2009-report-rus.pdf [in Russian].
- 10. Status Review on the Implementation of Distribution System Operators' Unbundling Provisions of the 3 rd Energy Package CEER Status Review Ref: C15-LTF-43-03 1 April 2016. https://www.ceer.eu/unbundling-report.

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# THE CAUSES OF SMALL BUSINESSES FAILURE

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Abstract. The causes of failure of very small enterprises is a new field of research, especially in Morocco. Indeed, few studies have set out to study it, few studies have set themselves the objective of studying it. This article aims to explain the failure of newly created enterprises, focusing on small businesses. These constitute the absolute majority of the businesses that make up the Moroccan economic fabric. Similarly, studies have shown that the first five years, which corresponds to the start- up period, represent the duration beyond which the majority of the businesses created do not manage to survive. Our analysis has raised several conclusions that can help to better understand of this type of failure. The very small businesses disappear suddenly for several reasons, in particular the scarcity of its resources, which handicaps its survival and its durability, hence the need to describe each explanatory factor of failure which are divided into two groups: endogenous factors and exogenous factors.

**Keywords:** endogenous, exogenous, factor, failure, lack, overtrading, small businesses, success.

**Rezumat.** Cauzele eșecului întreprinderilor foarte mici reprezintă un domeniu nou de cercetare, în special în Maroc. Într-adevăr, puțini cercetători și-au propus să o studieze. În acest articol este explicat eșecul întreprinderilor nou-create, mizându-se pe întreprinderile mici. Acestea constituie majoritatea absolută a afacerilor care alcătuiesc țesutul economic marocan. Studiile au arătat că primii cinci ani, ce corespund perioadei de start-up, reprezintă durata peste care majoritatea afacerilor create nu reușesc să supraviețuiască. Analiza noastră a evidențiat câteva concluzii care pot ajuta la o mai bună înțelegere a acestui tip de eșec. Întreprinderile foarte mici dispar brusc din mai multe motive, în special, din lipsa resurselor sale, care îi handicapează supraviețuirea și durabilitatea, de unde necesitatea descrierii fiecărui factor explicativ al eșecului care sunt împărțiți în două grupe: factori endogeni și factori exogeni.

**Cuvinte-cheie**: endogen, exogen, factor, eşec, lipsă, supratrading, afaceri mici, succes.

## Introduction

According to the megatrends of the market, those which require the entrepreneurial capacities of adaptation to turbulent environments, the very small business comes up against more and more the difficulties of access to the resources of the business ecosystem, necessary to maintain its survival operating rhythm. To define it well, it is necessary to move towards an analysis of its nature, its diversity, but also its various quantitative or qualitative criteria, and its specificities which constitute a competitive advantage compared to other organizations (holding, conglomerates, groups etc.), which demonstrates why very small companies weigh heavily in the economy.

In spite of their specificities, the majority of them fail from the first years of their existence, because of their fragility and their vulnerability to the mutations of the business ecosystem. It should be noted that failure does not mean the death of a company, which can be a temporary halt of activity. It could be unprecedented situation to live, in which the small business can transform its actions into value-creating innovation during these disastrous moments, which allows the very small company to prove its degree of resilience in the face of change in the uncertainty period. Moreover, the most resilient are the ambidextrous ones that are able to balance between exploration and exploitation, such as technology small businesses specializing in software, mobile applications and other high- impact innovative ideas, and also the anti-fragile ones that fail, and survive the shock, because they learn the most.

It seems important at this level to question the way small businesses behave today against the risks and failures, in order to assess whether they are capable of surviving and overcoming difficulties during and after a period of recessionary failure.

It is difficult for us to remain insensitive to the phenomenon of small businesses failure in view of its disproportionate proportions in Morocco. It is thus, around the failure that our research problematic is articulated. More specifically, we aim at knowing the causesof failure; it is precisely at this level that our research would be situated. In this respect, we propose to ask the following central question: what are the explanatory factors of small businesses failure?

# Identification of Small Businesses in a Theorical Framework Definition of Very Small Businesses According to Small Business Administration

Small businesses are very important in the management science literature as they contribute directly to the growth of the economy. To demonstrate this impact, here is a list of statistics from the [1]:

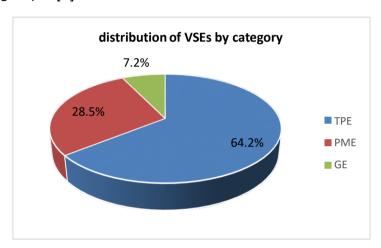
- 1) 30.7 million of the businesses in the United States are small businesses.
- 2) MSEs create 1.5 million jobs each year, accounting for 64% of new jobs created in the United States.
- 3) More than 90% of the business population represents small and medium sized enterprises.
- 4) 55% of small business owners said that the biggest motivation for starting their own business is to become their own boss [2].

It has to emphasize the role of very small firms in producing innovations in a very short period of time compared to large firms: "the study also found that small firms produce 2.5 times as many innovations as large firms, relative to the number of people employed, and that they take less time to bring an innovation to market. The research on medium and small

enterprises is justified by the simple fact that they are numerous. It should be noted that Medium and small enterprises are treated as a separate sector, not because they are cohesive and homogeneous, but because there are certain common management limitations due to extremely scarce and limited resources.

# **Definition of Small Business According to the Moroccan Context**

In Morocco, as in all countries, they create jobs and wealth. There was no single legal definition that allowed companies to be classified by size until the appearance of the small businesses charter "law 53-00" of 2002, which classifies companies based on turnoverand workforce. According to the statistics of the Small businesses [3] High Commission for Planning: "The weight of small and medium businesses represents 93% of all companies in Morocco. 64% are very small businesses, 29% are medium businesses and 7% are conglomerates or groups" [3]:



**Figure 1.** Distribution of companies by category in Morocco (2019).

Source: (HCP, 2019).

HCP "haut-commissariat au plans du Maroc": High Commission for Planning of Morocco

TPE: VSE in blue color PME: MSE in red color

GE: conglomerates or holding in green color

The earlier work on the definition of small businesses refers to quantitative criteria that highlight the influence of size on the organization as a pioneering criterion especially in comparative analysis. The quantitative criteria refer to criteria of a quantifiable character in particular: the number of employees, turnover and capital employed as well as profit and added value. As for the qualitative criteria of the very small businesses, they emphasize the human dimension of this entity as a production, management and leadership box. The authority of the manager who is more often the owner, for this reason, he is considered as a fundamental determinant in the small businesses thanks to his personification. The qualitative approach integrates a multi-criteria typology of small business, we have retained from it the most determining factors such as: the company strategy, the company/employee relationship, the managerial practices of the leaders and the company culture. From the literature, we were able to reconcile quantitative criteria with qualitative criteria to identify criteria on a continuum:

Table 1

| Contingency factors as criteria on a continuum                                  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Quantitative approach   | Qualitative approach   | Continuum approach   |  |  |  |  |  |  |
| Number of employees:<br>less than 10 people                                     | Personification of the leader: achieving the personal objectives of the leader and therefore of thecompany itself. | The size of the organization:<br>the larger itis, the more   |  |  |  |  |  |  |
| Turnover: lessthan 3<br>(Million Dirhams)                                       | Strategy: short-term growth / sustainability.  | elaborate thestructure. The age of the company:the older it is, the more formalized the behavior. Technical system: automated or sophisticated. The environment: flexibleand dynamic or complex. Power: centralized The strategy: ensure the |  |  |  |  |  |  |
| Dominant geographical area: 70% of small businesses have installedon Casablanca | Company/employee relationship:relational fluidity  |  |  |  |  |  |  |  |
| Most dominant sector of   | Managerialpracti<br>ces:executive<br>leadership,   |  |  |  |  |  |  |  |
| activity: more than 60% of very small businesses operate on the services.       | Corporate culture: Familiarity, paternalistic attitude of the owner  | sustainability ofSME over the long term  |  |  |  |  |  |  |
|   | manager, corporate valuesand beliefs.  |  |  |  |  |  |  |  |

Source: the author.

## **Success Versus Failure of Small Business**

Marchesnay emphasized the entrepreneur-owner-manager: "in the small firm, and the smaller the firm, the organization revolves around its manager, who is the hub of the information and decision-making system [4].

Verstraetealso goes in this direction by introducing the company structure via the structural dimension in its definition of the entrepreneurial phenomenon [5]. There is a relationship between the mode of organization and the leader, hence the need to analyze the life cycle of the company, particularly the small businesses, which is dominated by the leader. Moreover, a good number of small businesses do not survive because of job creation/destruction due to weak reflection/action of the creator towards his company.

Given the close link between the manager and the structure, a survey was organized by Rivetto identify the causes of failure of small businesses, and the criteria for success of small businesses based on two main axes [6]: the company and the manager as frames of questionnaire, for that the author counted on the information of the chamber of the trades of the craft industry of the Vienna as a source of a sample of 115 very small businesses in difficulties and 115 others in the success, the two samples are treated with two different methods of investigation; The first sample concerns the failing and was done from the files of the Chamber of Crafts and Trades of the Haute Vienne, it is an exhaustive sample of artisans in difficulty, while for the second sample concerns the small businesses success were investigated by a semi-directive interview with the leaders themselves with the help and

collaboration of the staff of the Chamber of Crafts and Trades of the Haute Vienne as a provider of social capital. The results of this study confirm the existence of a closer relationship between the head of the company and the organization that he/she directs: "it is notable that 75% are still owned by their creator leader while 24.8% are takeovers with a lower failure rate in the case of takeovers since the clientele already exists [6]. The litigation with customers (bad payers, or dissatisfied with service etc.) is among the causes of difficulties of small businesses explained by a lack of customer relationship management, and deterioration of the system of governance because of opaque profile of leaders before third parties and investors etc. Also, if difficulties are related to the leader, the results have also pointed to the environment as a contingency factor most influential, including a market of highly competitive intensity blocks the cycle of operation of the company. It is notable that it is rather the healthy firms that are located in markets with low competitive intensity, while those in difficulties are very clearly positioned in markets where competition is strong" [6]. The most influential environment variable includes not only market progress but also economic policy, strategy and technology as environmental sub-variables. This leads us to recall the other contingency variables such as power relations, and age treated in the analysis of the results of this study: the majority of very small firms pick-on for a specialization strategy with centralized structures (functional/hierarchical), rely on a centralization of power of decision making, and no initiative is left to subordinates with a more classical coordination mechanism by direct supervisors. Orders go directly from the leader to the performer through the hierarchical channel, while respecting the principle of uniqueness of command of Fayol. It is the healthiest, and successfulness principle, that keep this hierarchical channel of direction managed and controlled by a one and only person (strategic top), in a vision that decentralized power leads to a dilatory and / or dispersed execution. The small businesses successes confirm that they seek to focus on a market nicheso as not to be handicapped by the weakness of their resources. As for the second variable of age, it is undoubtedly a factor of seniority marked by the experience effect of the manager on the one hand, and by the participation of third parties in the capital which ensures the continuity of the business life cycle (success of very small businesses) on the other hand.

At the level of technology, a very large majority of the small businesses, about 80% of them, carry out their activity in traditional trades such as handicrafts, which makes them not or little users of the more sophisticated and modern technologies, and this type of tools can slow down the normal productivity of the company without carrying out a preliminary study. That is why the majority of the small businesses operating in the craft industry are healthy and succeeded because they are mature in terms of productive tools installed for years, as well as the activities carried out manually, which mark a certain efficiency of a task performed, justified by the accumulation of experience of the manager where he is used to carry out his tasks in a routine manner.

Thus, the organizational structure of small businesses depends strongly on both their own characteristics: the environment in which they operate, and the personality of the manager. The results confirm very well the fragility of these structures, their strong dependence on the person of the leader. One could say that the causes of failure are due to the leader-owner as being the strategic summit of organization and the foundation on which the company is based rather than to the structure and the market conditions.

# **Explanatory Factors of Entrepreneurial Failure of Small Businesses**

When we hear the term "failure", we think that it means a total stop of the company's activity, and therefore its definitive disappearance. Whereas the disappearances of companies are not necessarily due to bankruptcies, and that it can act of fusion, acquisition or voluntary closures or others. We must therefore distinguish between failure and mortality. There is not a unique definition of failure, the most widespread definition fits in the perspective where several authors have assimilated failure to mortality while others have assimilated it to continuity during and/or after extreme events; the companies in case of failure can either survive and succeed from failure to continuity or fail from failure to mortality. The failure is apprehended thus like a permanent or long period of recession dependent on several factors which slow down even cease the company to reach its objectives already fixed by the strategic top; according to [7]: "organizations can be judged failures not in terms of their relative effectiveness but more concretely in terms of theirs achievement of goals they have chosen for themselves" [7]. So, the failure is evaluated in terms of the incapacity of the company to achieve its own objectives, characterized by a set of endogenous and exogenous factors explaining the failure of the companies, particularly the small businesses.

# **Endogenous Factors of Small Businesses Failure**

It is clear that the endogenous factors are the most explanatory of failure insofar as an external factor can cause the failure of a company. As an example, the loss of customers which entrained the closing of company, it is about a failure caused by an external factor (the loss of clientele) but its origin comes from the internal commercial policy. If the company decides to diversify its customers it can be the loss of a targeting of customers willnot entrain its closing.

In the literature, we have been able to identify the internal factors of failure of small businesses, which are related to the individual (owner-manager), the team and the company:

At the level of the individual, the owner-manager of small businesses is the strategic top of the company that conditions the success or failure of his business, through several variables, including his degree of commitment, his availability and others. According to a study conducted by the National Federation of Independent Business Research and American Express among 3,000 small businesses; estimates that companies whose leaders provide more overtime in the work, they would have a higher success rate than those who do not. This study measured the commitment of the leader by the number of hours of work, and those who reach a certain threshold of long hours of work can make the difference between a failure and a success. Second variable is the incompetence and inexperience of the leader. According to Dun and Bradstreet, incompetence accounts for 50% of failures, and inexperience accounts for 40%. Similarly, according to [8] Other studies have cited management incompetence and inexperience as major causes of small business failure [9]. This explains that the incompetence of the manager is the main cause of failure of small businesses, followed by his inexperience.

According to the literature, there are two types of incompetence: managerial incompetence and technical incompetence. The managerial incompetence is due to the lack of knowledge of the principles of management, where the manager starts a business without making a preliminary study of the targeted entrepreneurial activity.

This is explained by the lack of risk-taking, taking excessive, unmanageable and unrealistic risks, and just having good ideas to succeed in business without focusing on how to implement these ideas, available resources, and a set of actions towards the achievement of the objectives already set by the strategic top, as an owner- manager of this business [10] Agree with this idea that one must first have good ideas to succeed: "Many bright, creative entrepreneurs produce dazzling plans and ideas, but fail in implementing them because they are unable to direct the work of other people. Motivating people, selecting, training and directing them, communicating with them and resolving conflicts are all essential skills for managerial success, yet many entrepreneurs lack them and consequently fail miserably as administrators [11]. While technical incompetence due to a lack of knowledge of the corebusiness, it is the absence of the owner-manager's expertise in a specific field, which is not within his competence, and is considered a major cause of failure. However, it may be a lack of training that the entrepreneur must recognize as incompetent in one area or another, and acquire the resources necessary for his or her business. Similarly, [12] clarify that the lack of expertise of the entrepreneur is only an excuse to justify his failure, where the role of the entrepreneur is to undertake and fill the gaps of his incompetence in a specific area by learning the resources he lacks: lack of expertise is not an adequate excuse because part of the effective manager's job is to recognize where he is out of his depth and to buy in the resources he needs to compensate for his inadequacies. It is obvious that inexperience is a trigger for managerial and technical incompetence. However, when it comes to inexperience, there are two types of failure; managerial inexperience and technical inexperience:

Managerial inexperience: According to [13]: "lacking experience in one or more of these critical areas, the enterprise gradually fails" [14]. The owner- manager of a small business must be multidisciplinary and have multiple knowledge in each of the management areas (marketing, accounting, finance, procurement and production), to be able to manage the company as a whole, and to grasp the interrelationships that exist between these management areas.

The second cause of failure is technical inexperience, which can make the difference between success and failure. According to an analysis carried out by [15] among 70 manufacturing companies in Quebec, it is the variable "knowledge of the sector before the creation of the company" that differentiates the most between companies that succeeded and those that failed. Starting a business in a sector of activity where one has no prior experience is a fatal error made by the majority of owner-managers, as well as the refusal of any form of self-evaluation.

Theorists have demonstrated the existence of the rigid behavior of owner managers with regard to recognizing their own weaknesses and hiring other people whose competence would compensate for them. This illusion is part of a conception of the neglect of external advice; more precisely it is the refusal of support for fear by the company to show its failure, or to lose the support and the confidence of the actors of the business ecosystem. So, among the determinants and not the factors of failure of the TPE is the refusal of accompaniment; [16] confirmed that the entrepreneurial success comes from the network of the entrepreneur particularly the accompaniers. "To express the entrepreneurial success Paterson et al (2001) pose the following equation:

Entrepreneurial success = entrepreneurial know-how + entrepreneurial knowledge+ E+T

*E* = appropriate environnemental conditions

T = positive entrepreneurial traits [17].

The failure of new businesses lies in the fact that the entrepreneur-founder does not have the appropriate entrepreneurial networks, so the founders of this equation recommend paying more attention to the second variable (entrepreneurial knowledge), as a mediating variable towards the success of the newly created business. [18] have also insisted on the necessity of having recourse to external advice to ensure the success of the enterprise: «the use of outsiders is critically important for the success of small business ". Various studies have focused exclusively on the know-how that determines the success or failure of the entrepreneur. It is therefore clear that having specialists, consultants and coaches around them scores higher on the road to success than companies that neglect and/or refuse them, but this neglect is not necessarily a specific cause of failure, rather the refusal of coaching determines the failure of the company, especially in case of difficulty.

At the level of the management team, we can distinguish two causes of failure; the non-complementarity of skills between the members of the team, and the conflicting relationships between them: the first is the cause of management imbalance for the manager. According to [19]: "the phenomena of inbalance is painfully visible in many engineering companies where not only is the chief executive an engineer but so are most of the board». It is obvious that the owner-manager cannot alone know and master everything, so the only way for him is the partnership to create synergies with partners who hold very indispensable competences, and to have additional financial resources to start the company. The problem which frequently results from this partnership is that the small business finds itself in a losing case, where it is directed by a similarity of actors having similar formations who are all technicians or engineers. The authors argue that the non-complementarity of skills among the management team within the small business is the characteristic of most failed enterprises, since the increasing complexity of the problems of marketing, production etc. and any function of the company, they require different resources of various skills, with a cooperative behavior for the complementarity of resources towards the achievement of common goals. While the second cause of failure is the disagreement between partners ceases the continuity of the company through the conflict of interest in several aspects including: the long-term vision of the company in terms of stability versus growth, the domination of private life on the professional life in one of the partners, strong decentralization of the power of decision-making, and the higher the degree of delegation of power, the more it is necessary to implement means to ensure the cohesion of the organization and avoid duplication of some work or the existence of contradictory orders.

At the level of the company: it is clear that a bad management leads directly to the failure of the company. For several authors of which [20]: a bad management was seen attributed in the same rank of the incompetence and the inexperience of the owner's leaders being the first cause of failure. The resulting mismanagement has resulted in the non-observance or neglect of certain principles of management practices that certainly lead to failure such as:

Lack of planning: by far, the most common cause of failure is lack of planning or poor planning. Most managers don't plan to fail, they just fail to plan [21]. The absence or insufficiency of planning manifests itself in many ways, in particular the non-existence of a business plan, which is necessary for obtaining the first loan applications as well as for the operation of the company. In addition, another manifestation of the lack of planning is that companies are more interested in planning before than after the creation. According to [22]: successful companies are those that develop a business plan and a continuous planning

process. Planning must be adequate and continuous, that is, it must be accompanied by action. A plan without action is like not planning at all. A plan in action is a plan translated into budgets that authorizes the creation of the control system necessary for the proper execution of the tasks mentioned in the plan.

Weak marketing orientation: the majority of small businesses adopt similar and operational sales techniques: (exhibitions, leaflets etc.), without taking stock of the marketing strategy because the main concern for them is the sale, while the marketing strategy contributes in the development of sales techniques to recognize the need of the consumer, and seek to satisfy them according to this principle of selling what we make, and making what we can sell. "In sum, there is a window of opportunity. Slightly early and late introduction are problematical [23]. It is therefore essential to stay tuned to the evolution of the market and to constantly adapt to it.

Overtrading (uncontrolled growth): According to many of small companies fail because of their success. They expand business volume, which involves selling on credit, faster than cash-flow can support. Generally, very small companies find themselves in this situation where the owner-managers have a shortterm vision of their companies. They don't know what level of growth to maintain, and how to control the pace of this continuous growth. It is obvious that growth is advantageous and beneficial for the company, but it loses all its virtues if it is not controlled or planned. The lack of a marketing strategy is a cause of failure, resulting in the lack of knowledge and/or lack of monitoring of the market, in which the commercialization of products or services are launched. No business can survive without a clear market and this appears consistently to be a root cause of the businesses which failed [24]. The market study makes it possible to know the degree of the force of competition, the potential of the market, and the customers. The study of an accurate market makes it easy to realize the product/market relationship under the level of product-timing. The latter determines the failure of a company since it is a question of a very early launch of a product in an immature market, and which was not ready in this time (premature market entry), or a late launch of a product in an already saturated market (late market entry).

This is precisely the case for many small businesses that remain marginal by default, because they are stuck in front of overgrowth. Small businesses that decide to grow must first plan the level of business volume that needs to be maintained, and then successfully transition from an entrepreneurial (personal) management style to a professional management style in order to ensure the survival of the business. Without a successful transition, failure will be inevitable.

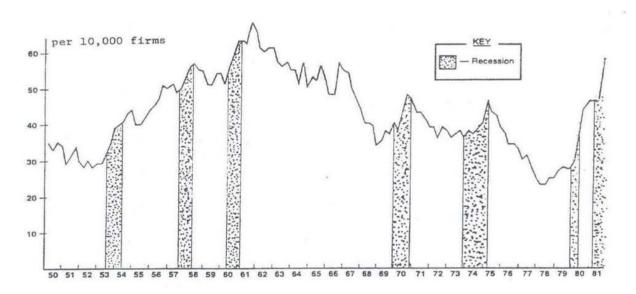
Inability to change from a personal to a professional management style: almost all studies have confirmed that the inability of the small businesses to change its entrepreneurial management style as soon as it reaches the development stage is a cause of failure for the majority of companies. This failure is more often translated by the short-term vision of growth of the owner-managers, since they adopt a management style which is not appropriate for the stage of development in which the company is.

# **Exogenous Factors of Small Businesses Failure**

Although failure may always be blamed ultimately on endogenous factors, exogenous factors are often present as well [24]. Although of lesser importance, exogenous factors also contribute to failure, and can be analyzed on two levels depending on whether one adopts the population ecology approach, or correlates them with certain macroeconomic factors.

Population ecology approach: this is an approach that contrasts the emphasis on adaptation in contingency theory, a theory that views survival as a matter of adaptation to the turbulent environment, and seeks to develop effective adaptation models [25]. The survival of the firm depends on its degree of adaptation to its environment. Population ecologists such as [25] explained the inability of organizations to adapt to their environment by the importance of inertia factors such as: high specialization of manpower, lack of sufficient information, difficulty of change, barrier to entry (fiscal or legal) etc. and any other factor can prevent organizations from adapting and/or making efficient changes. Despite the force of inertia, the company can succeed in reorganizing and adapting. However, only large companies can overcome this inertia, while very small companies are more often victims of their environment.

Correlations with certain macro-economic factors: these factors are not direct causes of failure but contribute to explaining the increase in the rate of business failures. "A firm's propensity to fail is greater during periods of reduced economic growth, poor stock market performance and especially important tight money supply [26]. These factors relate particularly to economic growth and to the conditions of the credit supply linked to the failure rate of small businesses. For the first factor (economic growth), while referring to the authors [27] who refer us to the classic example of the 1929 crisis, the bankruptcy rates reached very high levels following this crisis but decreased rapidly with the economic recovery.



**Figure 2.** Small businesses failure versus economic recession. *Source: (Altman, 1983), [28].* 

Moreover, several studies have shown that the bankruptcy rate increases more during periods of economic recession, and decreases during periods of growth. The increase in bankruptcy during the crisis is explained by the multiple pressures and difficulties to which VSEs, the most vulnerable, are subjected. The figure below shows the relationship between business failures and periods of recession.

Altman emphasizes that this is a causal relationship, as illustrated in the figure above [28], and he agrees [29]: companies that begin operations in recessionary times greatly increase their failure potential. While the second factor remains a cause of failure (the conditions of credit supply); among the pressures and difficulties to which very small businesses are subjected is the restrictive credit policy with a higher interest rate, which

further increases their vulnerability given that more than 80% of them are totally dependent on the banking system for their financing. As credit becomes rationed, banks and other financial institutions reserve it for the least risky clients, the large enterprises [30]. The small businesses in a bad position will therefore disappear more quickly.

## **Conclusions**

We do not claim, through this modest work, to identify the advantages and strengths of very small businesses, given that the managerial literature has been more oriented towards the study of performance and growth, which gives small businesses failure a very weak scientific status. This weakness is all the more marked since there is no universally accepted definition of failure, which can range from the narrower definition of bankruptcy to the more extensive definition of simple cessation of activity.

The objective of this work is to draw attention to the failure as a current topic since most of the studies have been interested for years on the success of companies. This has led us to identify the endogenous and exogenous factors of failure of small businesses, as a first step to understand the complexity of the internal process of functioning of the very small business, to detect the most determinant variables of failure, and then to know the problem, not only to solve it, but also to capitalize on the existing to be able to change, improve, innovate, and thus perform especially at disastrous times.

We would like to propose a few directions of research that would allow for a better understanding of the phenomenon of small businesses failure, and from a more precise definition of the actions that could curb it, or at least mitigate it. A question then arises: what exactly do we mean by the determinant factor and not just the one that explains failure? The objective is to give creative strategies to small businesses to succeed in their path towards continuity and sustainability.

## References

- 1. OECD. "Small Businesses, Job creation and Growth: Facts, Obstacles and Best Practices," Small, pp. 1–54, 1996, doi: 10.1002/1098-240X(200006)23:3<246: AID-NUR9>3.0.CO;2- H.
- 2. Hefer Y., Cant M. C., and Wiid J. A. "Starting Ones Own Business What Motivates Entrepreneurs?" Int. Bus. Econ. Res. J., vol. 14, no. 2, pp. 237–246, 2015, doi: 10.19030/iber.v14i2.9110.
- 3. Lemqeddem A. A. I. T. "Alternatives Managériales Economiques The relationship between strategic management and SMEs performance in," vol. 3, no. 1, pp. 289–311, 2021.
- 4. Marchesnay M. "La mercatique de la petite entreprise," Rev. Int. P.M.E., vol. 1, no. 3–4, pp. 259–276, 2012, doi: 10.7202/1007884ar.
- 5. Verstraete T. "Proposition d'un cadre théorique pour la recherche en entrepreneuriat," Ed. l'ADREG, 2003, Accessed: Jan. 27, 2021. [Online]. Available: http://www.editions- adreg.net.
- 6. Rivet A. "TPE en difficultés, TPS saines : quelles différences ?," La Rev. des Sci. Gest., vol. 228, no. 6, p. 73, 2007, doi: 10.3917/rsq.228.0073.
- 7. Miles M. "The money market in the early industrial revolution: The evidence from west riding attorneys c. 1750–1800," Bus. Hist., vol. 23, no. 2, pp. 127–146, Jul. 1981, doi: 10.1080/00076798100000027.
- 8. Knotts T., Jones S. and Udell G. "Small Business Failure: The Role of Management Practices and Product Characteristics," J. Bus. Entrep., vol. 15, no. 2, p. 48, 2003.
- 9. E. G. Richardson, "Book Reviews:," http://dx.doi.org/10.1177/107110079101100615, vol.11, no. 6, pp. 411–413, Aug. 1991, doi: 10.1177/107110079101100615.
- 10. Sauser W. I. "Intrapreneurial Success: Lessons from Entrepreneurial Failures.," SAM Adv. Manag. J., vol. 52, no. 3, p. 32, 1987, Accessed: Feb. 18, 1978. [Online]. Available: https://www.proquest.com/openview/00f69f6f74cdecc22ec16cad55fe607a/1?pq-origsite=gscholar&cbl=40946.
- 11. Jirari O. "Essai de typologie des causes d'échec des petites et moyennes entreprises Ola JIRARI Google Livres." https://books.google.co.ma/books/about/Essai\_de\_typologie\_des\_causes\_d\_échec\_d.html?i

- d=kXUzjwEACAAJ&redir esc=y (accessed Jan. 29, 2021).
- 12. D. and K. Clutterbuck S., The Phoenix Factor: Lessons for Success from Management Failure. 1990.
- 13. Hodgetts, "Management: Theory and Practice Ernest Dale Google Books," Rex Bookstore, Inc., 1965, 1982.
- 14. H. N. (Halsey N. Broom and J. G. (Justin G. Longenecker, "Small business management," p. 734, 1971.
- 15. Lorrain J., and Dussault L. "Les entrepreneurs artisans et opportunistes : Une comparaison de leurs comportements de gestion," Rev. Int. P.M.E., vol. 1, no. 2, pp. 157–176, 2012, doi: 10.7202/1007879ar.
- 16. Paterson M. "Risky Business: Insurance Companies in Global Warming Politics," *Glob.Environ. Polit.*, vol. 1, no. 4, pp. 18–42, Nov. 2001, doi: 10.1162/152638001317146354.
- 17. Jirari O. "Essai de typologie des causes d'échec des petites et moyennes entreprises Ola JIRARI Google Livres." https://books.google.co.ma/books/about/Essai\_de\_typologie\_des\_causes\_d\_échec\_d.html?i d=kXUzjwEACAAJ&redir\_esc=y (accessed Jan. 29, 2021).
- 18. O'Neill H. and Duker J. "Survival and failure in small business," *J. Small Bus. Manag.*,vol. 24, pp. 30–37, 1986, Accessed: 1986. [Online]. Available: https://courses.lumenlearning.com/cerritos-smallbusmgmt-1/chapter/1-2-success-and-failure-in-small-businesses-2/.
- 19. Argenti. "Reward schemes | P5 Advanced Performance Management | ACCA Qualification Students | ACCA | ACCA Global." 1976, Accessed: Feb. 18, 2022. [Online]. Available: https://www.accaglobal.com/my/en/student/exam-support-resources/professional-exams-study-resources/p5/technical-articles/business-failure.html.
- 20. Scarborough N. M. and Zimmerer T. W. "The Entrepreneur's Guide to ESOPs:" http://dx.doi.org/10.1177/088636878802000407, vol. 20, no. 4, pp. 62–68, Jul. 1988, doi: 10.1177/088636878802000407.
- 21. E. G. Richardson, "Book Reviews:," http://dx.doi.org/10.1177/107110079101100615, vol.11, no. 6, pp. 411–413, Aug. 1991, doi: 10.1177/107110079101100615.
- 22. R. H. Keeley and J. B. Roure, "The management team: a key element in technological start-ups.," *Adv. Glob. High-Technology Manag.*, vol. 3, pp. 35–59, 1993.
- 23. D. Smalibone, "Success and Failure in New Business Start-Ups:," <a href="https://doi.org/10.1177/026624269000800203">https://doi.org/10.1177/026624269000800203</a>, vol. 8, no. 2, pp. 34–47, Jul. 1990, doi: 10.1177/026624269000800203.
- 24. Fredland J. E. and Morris C. E. "A Cross Section Analysis of Small Business Failure:," https://doi.org/10.1177/104225877600100102, vol. 1, no. 1, pp. 7–18, Dec. 1976, doi: 10.1177/104225877600100102.
- 25. Morgan, "Gareth Morgan: Creative Organization Theory. A Resource Book 1989, Newbury Park, London, New Delhi: Sage. 369 pages," *Organ. Stud.*, vol. 11, no. 4, pp.600–601, Jul. 1990, doi: 10.1177/017084069001100416.
- 26. Argenti, "Reward schemes | P5 Advanced Performance Management | ACCA Qualification Students | ACCA | ACCA Global." 1976, Accessed: Feb. 18, 2022. [Online]. Available: https://www.accaglobal.com/my/en/student/exam-support-resources/professional-exams-study-resources/p5/technical-articles/business-failure.html.
- 27. H. N. (Halsey N. Broom and J. G. (Justin G. Longenecker, "Small business management," p. 734, 1971.
- 28. Altman E. I. "Why businesses fail," *Journal of Business Strategy*, vol. 3, no. 4. MCB UPLtd, pp. 15–21, 1983, doi: 10.1108/eb038985.
- 29. Sauser W. I. "Intrapreneurial Success: Lessons from Entrepreneurial Failures.," *SAM Adv.Manag. J.*, vol. 52, no. 3, p. 32, 1987, Accessed: Feb. 18, 1978. [Online]. Available:https://www.proquest.com/openview/00f69f6f74cdecc22ec16cad55fe607a/1?pq-origsite=gscholar&cbl=40946.
- 30. Lemqeddem A. A. I. T. "Alternatives Managériales Economiques The relationship between strategic management and SMEs performance in," vol. 3, no. 1, pp. 289–311,2021.

https://doi.org/10.52326/jss.utm.2022.5(2).13 UDC 330.3:504:687(478)





# THE INITIATIVES TO IMPLEMENT THE CIRCULAR ECONOMY IN THE GARMENT INDUSTRY (REPUBLIC OF MOLDOVA CASE)

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**Abstract.** This paper reflects some initiatives to implement the circular economy in the textile and clothing industry in the Republic of Moldova with a focus on recycling textile waste and identifying opportunities to increase the sustainability of the industry and to align with the practice of the European textile industry. The garment industry is among the most developed industries of the Moldavian economy. It is in the top five largest branches of industry and a major job generator. The disadvantage of this industry, as well as of the European textile industry, is that it is a large waste generator both in the pre-consumption phase, but especially in the post-consumption phase, which mostly end up in landfills and pollute groundwater, soil and air due to greenhouse gas emissions. Textile waste that is formed in the pre-consumption phase is not sorted, therefore it is not recycled. However, there are some initiatives in Moldova to implement circular economy models. In practice there are certain initiatives to implement circular business models for the collection and recycling of postconsumer waste, which aim to extend the life cycle of articles. Young designers are also trying to find solutions for recycling garments. In order to multiply the existing practices of waste collection and recycling in the Moldovan garment industry, there is a need for education and a broad involvement of both businesses and consumers.

**Keywords:** garment industry, circular economy, circular business models, circular business ecosystem, waste hierarchy.

**Rezumat.** Această lucrare reflectă câteva inițiative de implementare a economiei circulare în industria textilă și de îmbrăcăminte din Republica Moldova, cu accent pe reciclarea deșeurilor textile și identificarea oportunităților de creștere a durabilității industriei și de a se alinia la practica industriei textile europene. Industria confecțiilor este printre cele mai dezvoltate industrii ale economiei moldovenești, aflându-se în primele cinci cele mai mari ramuri ale industriei și un generator important de locuri de muncă. Dezavantajul acestei industrii, ca și al industriei textile europene, constă în faptul că este un mare generator de deșeuri atât în faza de pre-consum, dar mai ales în faza de post-consum, care ajung în gropile de gunoi și poluează apele subterane, sol și aer din cauza emisiilor de gaze cu efect de seră. Deșeurile textile care se formează în faza de pre-consum nu sunt sortate, prin urmare, nu sunt reciclate.

Cu toate acestea, în Moldova există unele inițiative pentru implementarea modelelor de economie circulară. În practică, există anumite inițiative de implementare a modelelor de afaceri circulare pentru colectarea și reciclarea deșeurilor post-consum, care urmăresc extinderea ciclului de viață al articolelor. Tinerii designeri încearcă, de asemenea, să găsească soluții pentru reciclarea articolelor de îmbrăcăminte. Pentru a multiplica practicile existente de colectare și reciclare a deșeurilor în industria confecțiilor din Moldova, este nevoie de educație și de o implicare largă atât a afacerilor, cât și a consumatorilor.

**Cuvinte-cheie:** industria confecțiilor, economie circulară, modele de afaceri circulare, ecosistem de afaceri circular, ierarhia deșeurilor.

# Introduction

The linear economy is a model still widely used nowadays, that involves the use of fabulous resources on the one hand, and on the other hand generates a huge amount of waste. According to data presented by the European Parliament, the European Union generates approx. 2.5 billion tons of waste [1], most of which ends up in landfills, which, in addition to occupying large amount of land, pollute the groundwater, soil and air [2]. Also, the decomposition of waste that ends up in landfills generates a huge quantity of methane which is a huge risk for global heating. The method waste of incinerating determines more harmless and generates huge emissions of air pollutants.

According to some statistics, over 10% of the total amount of waste is generated by the production of goods, among which the production of textiles and clothing can be ranked in the top of waste generation industries. Analyzing some data presented by the European Environment Agency, every consumer in the European Union throws away about 11 kilograms of textiles waste annually, the essential part ends up in the landfills. In a report of the European Parliament published in 2020, approx. 10% of global greenhouse gas emissions come from the clothing industry. It exceeds the greenhouse gas emissions generated by air transport and maritime transport taken together [3].

The generation of such a large amount of waste and negative effects has occurred as a result of the implementation of fast fashion, which has been promoted by major clothing manufacturers over the last ten years and seems to continue. The following data confirm that: the famous Swedish group H&M polluted air with 72,580 tons of CO<sup>2</sup> in 2020, a year marked by blockages related to the Covid-19 pandemic, which was 18% more than in 2019. One of the major producers the Spanish clothing company Inditex, the owner of the Zara brand, have had emission of 120,992 tons of CO<sup>2</sup> in 2020 [3].

The apparel industry of Moldova also is a big generator of waste. Due to the business models that have emerged for many years in the garment industry over 80% of the total number of companies provide manufacturing services for European customers, who deliver the inputs to Moldavian factories. In the practice all garment companies involved in the outsourcing deliver to foreign customers only the finished products, and the waste that is formed in the pre-consumption phase remains with the company, although they de facto belong to the international customer. Only a very small number of companies that provide services to international customers deliver waste to international customers. The other 20% of the total number of enterprises produce garments under their own brand, using materials purchased independently. In this case the waste that is formed in the pre-consumption phase belongs to the local company.

According to some preventive calculations, it was found out that annually in the Republic of Moldova the apparel industry generates a quantity of around 10 thousand tons of textile waste and approx. 3,000-5,000 tons of other waste (cardboard, plastic and others).

In order to identify how this waste is managed, 25 garment companies were interviewed. Among the companies interviewed were both large, small and medium-sized enterprises, companies providing services to international customers and / or companies that own their brand, specializing in the manufacture of a wide range of clothing for men, women and children of natural, synthetic or mixed fabrics.

Analyzing data presented by interviews, the following practice of waste management in Moldovan apparel companies was identified:

- Over 90% of companies mentioned that plastic and cardboard are collected separately. They are collected by companies specializing in recycling of this type of waste.
- A very small number of companies (approx. 10%) that provide services to international customers, collect textile waste and return it to customers at their request, once the manufacturing order is delivered.
- A small quantity of Jersey-type waste is offered to vine growers for tying vines or sold to car repair centers for use for hand hygiene.
- Most of the textile waste obtained in the pre-consumption/manufacturing phase are collected by the Moldovan companies without being sorted. In order to evacuate them the Moldovan apparel companies have concluded contracts with the sanitation companies which pick up this waste from the enterprise and transport it to landfills.

Thus, the interviews showed that in the Republic of Moldova the textile waste from the pre-consumption/manufacturing phase in the garment factories goes directly to the landfills. Disposing of textile waste in landfills causes a lot of problems, namely:

- Large landfill capacities are needed because textile waste goes to landfills along with other types of waste;
- Landfills are a major threat for drinking water supply. When it rains, water drains through stored waste / garbage and picks up chemicals (dyes and bleaches etc.) from textile waste stored in landfills. The water accumulated at the bottom of the landfill could be very toxic, often more toxic than sewage water;
- For textile waste to decompose it takes quite a long time and depends a lot on the composition of the textiles.
- Due to the lack of oxygen, even textiles made of biodegradable natural fibers do not decompose in a short time.
- Greenhouse gases, which occur as a result of textile waste decompose, pollute the environment enormously;
- Waste from natural wool fabrics decomposes fairly quickly. However, during decomposition, methane, a greenhouse gas, is eliminated;
- Waste from synthetic fabrics does not decompose. Thus, they are a long-term source of soil and water pollution.

During discussions with the garment companies, it was found out that a relatively small share of enterprises (about 12%) use the method of incineration of textile waste that appeared in the pre-consumption phase. The incineration is a method of disposing of textile waste in industrial specialized plants. Incineration can be used as a method of disposing of textile waste. But it is necessary to mention that this process needs installations with quite

high technical performances. In fact, incineration installations with low technical performance can generate the elimination in the atmosphere of some rather dangerous chemicals [4]. According to European Union law, incineration is not considered a form of recycling, it is either a form of energy recovery or a form of disposal of textile waste. In the Republic of Moldova, although incineration as a method of waste disposal is allowed, a regulation for the incineration of textile waste is still missing.

An enormous problem is the waste from the post-consumer phase, which has a high growth trend. So, the current situation requires the implementation of the circular economy in the garment industry both at European Union and Republic of Moldova.

# European and Local Context on the Implementation of the Circular Economy in the Textile Industry

The linear production model is a resource intensive consumption one, characterized by increasing consumption, climate change and huge environmental pollution, has generate global challenges that are severely affecting society [5]. Taking into consideration this, the European Union has launched a series of activities to implement the circular economy. Well-coordinated actions between business, society and the Member States have led to policies to stimulate the implementation of a series of sustainable actions. The European Commission has adopted in 2019 the policy guide that addresses global environmental challenges and concept of circularity.

The European Textile and Garment Confederation (EURATEX) has aligned with the ambitious objectives of the EU institutions to change the traditional linear manufacturing and in 2020 approved the Textile Strategy "Circular Textiles. Prosperity-in-the-circular-economy", which stimulates the widespread implementation of the circular economy, as an opportunity to reconcile the environmental-socio-economic aspects of sustainability in the textile sector [6].

In this document EURATEX presented the concept of circular economy developed by the European Commission in 2015 which define the circular economy as a system of production and consumption in which "the value of products, materials and resources is maintained in the economy for as long as possible, minimizing waste that contribute to the EU's efforts to develop a sustainable, low-carbon, resource-efficient and competitive economy. Such a transition (to a more circular economy) is an opportunity to transform the economy and generate new and sustainable competitive advantages for Europe" [6].

The EURATEX concept was included in the Strategy "Circular Textiles. Prosperity in the circular economy" with twelve directions for achievement of the circular economy of textiles in the EU, which cover three main areas such as building partnerships, increasing demand and consumer education [6].

The established partnerships between fashion brands, which have the role of buyer, and manufacturers, from the production of fibers to the manufacture of consumer goods will play a decisive role in implementing an efficient circular economy.

It is well known that the increase in demand generates the increase in supply, and the latter due to the scale effect contributes to the reduction of cost. This dependency is very important for recycled materials. Although the cost of recycled materials has a declining trend, it is still quite high and exceeds the cost of virgin materials, because it is needed to use new machines, perform various tests, train staff, etc. The high cost is a critical issue that block the widespread market adoption of the circular economy. Increasing demand from this

type of business will generate certain partnerships and investments in specific technologies and equipment, using solutions that are already available, but also creation new one.

A very important domain is the education of the consumer, so that he is responsible for the decisions he makes and be able to choose what is best for both him and the environment.

The strategy also highlights the importance of product design, standardization of recycled products, collection and sorting, new services, updating legislation and more [6].

The strategy also describes six conditions that would allow the implementation of the circular economy:

- The health and safety of recycled products must be at the same level as that of products made from virgin raw materials;
- Respecting the waste hierarchy (repair, reuse and recycling);
- The need to provide different solutions according to specifics of product and markets;
- The changes in the sector will take place differently, however it is necessary to understand that the changes will take time and a concrete action plan will be needed:
- Strict compliance with the law, strict supervision of the implementation of the law;
- Ensure the growth of European industry and its role globally through a European action plan that will contribute to strategic investment, employment, especially for SMEs [6].

The textile / clothing industry in the Republic of Moldova, even if it is quite small compared to other European countries, promotes the implementation of the circular economy in the sector. Thus, in 2020, the Strategic Roadmap "Rebuilding a Sustainable Light Industry in Moldova" was adopted, a policy that represents a roadmap for transforming the Moldovan textile /apparel industry in line with EU market expectations. This document includes strategic recommendations on five key areas, the first being Sustainability and Circularity [7].

The document sets out six strategic objectives and initiatives in the area of sustainability and circularity, such as:

- Creating a public-private partnership in order to define a plan to decarbonize the industry and promote renewable energy and waste management;
- Introduction of topics on sustainable development and circularity in higher education for textiles and design programs;
- Encourage investment in green technologies, including waterless technologies for painting etc.;
- Adapting a national program to stimulate and support enterprises that will develop new, sustainable and circular business models;
- Building a strong relationship with international organizations in the field of recycling, as well as with innovative companies that are experienced in recycling;
- Develop a national strategy for research, development and innovation, focused on circularity [7].

Strategic documents on the implementation of the circular economy to be implemented have been adopted at both European Union and national level using the best and most efficient circular economy models.

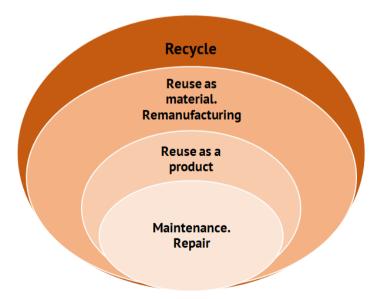
# Circular Economy Models in the European Textile Industry

Circular business models can be presented in different types of operation in order to contribute to the transition to a circular economy. In 2014, the global management, technology services and outsourcing consulting company Accenture presented the list of circular business models. This list includes five key circular business models [8]:

- Circular utilities involves the supply of renewable energy, bio-materials or fully recyclable materials that would replace the inputs throughout the life cycle of the product;
- Recovery of resources involves the recovery of resources and energy from reused products;
- Extending the life of the product involves extending the life cycle of products and components through repair, modernization and resale;
- Sharing platforms involves increasing the utilization rate of products, raw materials, accessories;
- Product as a service which would mean providing wider access to the product and retaining ownership in order to internalize the productivity benefits using circularity of resources.

Circular innovations in business models are defined by complex networks in which the actors involved need collaboration, communication and coordination. The actors of these networks are interdependent, but remain independent. Redesigning business ecosystems means creating a "win-win" model, which would mean finding a balance between the interests of the actors involved in order to facilitate their actions and develop the circular business model [9].

A model of the circular business ecosystem for textiles was developed at the Finnish ATV Technical Research Center in collaboration with the Finnish circular economy consulting firm Ethica [10]. The model of the circular business ecosystem for textiles is based on the principles of the circular economy developed by the Ellen MacArthur Foundation [11], with four value cycles as its backbone: Maintenance, Repair; Reuse as a product; Material reuse, remanufacturing and recycling (Figure 1).



**Figure 1.** Four value (technical) cycles of a simplified circular economy [11].

The successful circular economy in the textile industry depends on the efficient implementation of the circular business model at each stage.

Based on the waste management hierarchy shown in Figure 2, waste prevention becomes a priority.

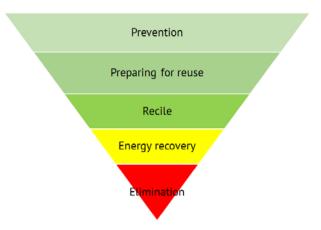


Figure 2. Waste management hierarchy [10].

The circular design of the product and service (development of sustainable models) plays a decisive role. No less important is the role of the consumer in preventing the excessive formation of textile waste. The consumer behavior will require a major especially under the influence of Fast Fashion culture that is prevalent at the current stage [10]. All these concepts are reflected in both the European and Moldovan strategy.

At the current stage, due to the fast fashion model of business in the garment industry, an enormous amount of waste is formed in the post-consumption stage. The circular business ecosystem for textiles aims to maximize the preservation of post-consumer textiles either in reuse cycles or to be recycled instead of incinerating textile waste or landfill. The key objective should be to use recycled textiles to ensure maximum value [10].

Currently, in the European Union, post-consumer textiles that can no longer be reused are incinerated for energy recovery, which is not the best solution or go to landfill. In the Republic of Moldova, they go directly to landfills and are sources of environmental pollution. This method does not contradict the legislative provisions [12].

We have to mention that only 12% of the material used for clothing ends up being recycled. If compared to glass and PET plastic which have recycling rates of 27% and 29% respectively, then it is clear that the textile lags behind. And most of the recycled polyester that is currently used by top fashion brands comes from recycled PET plastic and not from recycling old clothes [13].

The key issue within textile industry regarding recycling is about how many fabrics are used for production and how many accessories are added. Fabrics can be complex combinations of fibers that can present problematic mixtures of natural yarns, artificial filaments, plastics and metals. Even clothes made from pure natural yarns may contain labels and yarns that could be made of another material, such as polyester. This is huge problem for recycling [13].

That is why, as result the research activities are being carried out with the aim of recycling post-consumer textiles and obtaining new products with a higher value, instead of being used for energy generation or being deposited in landfills. Thus, options for energy

recovery and waste disposal are not efficient and excluded from the modeling of the circular ecosystem for textiles.

Practice already shows that the circular business ecosystem in the textile industry is beginning to be implemented and this is much more than recycling. Circular economy models include the efficient use of materials in product design, product life cycle extension services, and directing products for reuse. Some of companies have already invested in launching circular business models. However, most of the solutions already delivered are usually relatively small portions of the company's business model and face barriers that no company could address on its own. That is why it is necessary to create partnerships, complex networks in which there is an efficient collaboration, communication and coordination for the achievement of the proposed goals.

# Opportunities and Initiatives for the Implementation of the Circular Economy in the Garment Industry in the Republic of Moldova

Due to the fact that in garment factories fabrics with different compositions are processed, the separate collection of textile waste at the pre-consumption stage is quite complicated and requires a lot of effort. Therefore, textile waste at the pre-consumption / manufacturing stage is not collected separately by garment factories which leads to their disposal in landfills along with other types of waste.

Despite the fact that currently the Ministry of Environment of the Republic of Moldova has issued 41 permits to enterprises carrying out waste collecting activities, only a few companies indicated in their type of activity the collection and recycling of textile waste, including textile waste from the pre-consumption phase. Many of these companies collect plastic, paper and cardboard from garment companies. The post-consumer textile waste is also not collected separately from the mentioned enterprises, also population lacks the culture to separate it from other waste. Only one company carries out services of collection, sorting and temporary storage and processing (composting and packaging) of textile waste in the pre-consumption and post-consumption phase [14].

However, there are several initiatives in the Republic of Moldova for the collection and recycling of textile waste. These initiatives belong to different non-profit organizations that contribute to improving the state of the environment. Existing initiatives contribute to the collection and recycling of textile waste both from the pre-consumption phase, but especially from the post-consumption phase, among which the following could be mentioned [15]:

# Initiatives for Waste Collection and Recycling at the Pre-consumption Stage

In this direction we can mention the Ra Planet store with products for arts and crafts, which is part of the EcoLocal Association - an association of consumers and producers, which allows direct connections between them and leads to the development of the local market of handicrafts, including recycled materials. Thanks to the Torbesc project, Ra Planet has demonstrated that any type of fabric can be transformed into cute rugs and bags of all beauty. The rugs are produced from textile waste collected from some garment factories, which appear in the pre-consumption phase. But the amount of waste collected and recycled / used from this phase is still very small, but it is still an opportunity for the collection and recycling / use of textile waste, which occurs at this stage in garment factories. The use of fabric waste for the production of hand-made rugs is quite interesting and does not require huge investments. These goods are sold, including for export, through the online store "From the

heard shop" [16]. This practice should be encouraged and developed in order to identify other directions for the use of textile waste that are forming at the pre-consumption stage.

# **Post-consumer Waste Collection**

There are several initiatives in this area, including the following:

- Shop-MESTO an initiative to collect clothes, shoes, accessories that the owner no longer needs, but which are in good condition and could be worn by other people. Thus, this initiative is aimed at extending the life cycle of clothing and footwear. Thanks to this initiative, the clothes come to life and are sold, and the money collected is used for charity. Clothes that are not in good condition are redistributed to animal shelters [17].
- Clothes bank social program established in 2016 and carried out by the Social Mission "Diaconia". During this program, special boxes were installed for collecting clothes, shoes, bed linen, etc. The collected goods are distributed by the network of parishes, but also the other partner organizations of the Diaconia. At present, 23 social boxes are organized and arranged for 45 villages, which were supplied with over 235 tons of goods donated within the project. Following the collection, the goods are sorted and redistributed to the socially vulnerable, the elderly, the homeless, thus prolonging the life cycle of clothing and footwear [18].
- FreeShop an eco-market organized periodically by EcoVisio where you can exchange clothes, accessories, bags, bags, etc. This event is also aimed at extending the life cycle of clothing, footwear and fashion accessories [19].
- Various NGOs have also started collecting clothes in street containers, as well as
  collecting them in clothing stores through "recovery" programs. This practice has
  both advantages and disadvantages. Disadvantages include the fact that street
  collection methods could affect the quality of clothes and subsequently limit the
  possibilities for reuse and / or recycling.

It can be concluded that in the Republic of Moldova there are certain initiatives aimed at capitalizing on opportunities to implement circular business models and extending the life of the product. However, these initiatives are quite few and are at a fairly early stage and require further development. The amount of textile waste from the post-consumer stage is very high and has a tendency to increase. These trends are dictated by the growing consumption, which come in very large quantities basically from imports, but also from second-hand products.

Another circular economy model initiated by the Light Industry Association of Employers (APIUS) in Moldova is related to the attempt to implement sharing platforms in order to increase the utilization rate of raw materials and accessories.

As mentioned before, in the light industry in Moldova (textiles, clothing, footwear and fashion accessories) about 20% of the number of enterprises operate under their own brand. Basically, all of these businesses are SMEs. At the same time in the country is not produced fabrics and accessories, and all of them are imported. These companies often have stocks of unused fabrics and accessories in various quantities, which in addition to requiring storage space, also represent frozen financial resources. On the other hand, some companies need small quantities of fabrics or accessories to complete contracted orders for which the supplies made were insufficient. Also, that could be interested for homemade businesses and the students from the design faculties that need fabrics in small quantities to carry out the works

provided by the curriculum. To solve these problems, the "Stocktextil" platform was created, an online platform facilitating the management of fabric and accessory stocks [20].

The online platform is a very advantageous and convenient option for establishing and maintaining business-to-business communication, as it provides an internal business-to-business chat box. In this way, the communication, data exchange and services certainly allow for an improvement in business relations. Thanks to the online platform, both companies and suppliers have access to a single database. The purpose of this database is to systematize the data of as many suppliers and beneficiaries as possible. By registering on the platform, companies can benefit from a list of suppliers and other partners willing to collaborate.

We can underline that in the Republic of Moldova efforts are being made to implement different models of circular economy in the garment industry. Both young designers and future designers studying at the Technical University are involved in development these initiatives. They are involved by with proposing a new design for recycled stuff. The ZIPHOUSE Center of Excellence of the Technical University organizes Hackathon where the young designers present to the jury, which consists of the representatives of the companies, the idea of recycling the articles of garments that failed to be sold in the previous season.

#### **Conclusions**

The linear production model, which is still widely applied in the garment industry, has created global challenges that are severely affecting society due to the large amount of waste. Taking into account these challenges, the European Union has launched a series of activities to implement the circular economy. The policies provided by member states promote well-coordinated actions between business and society to stimulate the implementation of a series of sustainable actions. The European Textile and Garment Confederation EURATEX has aligned with the ambitious provisions of the EU institutions to change the linear manufacturing mode and approved in 2020 the Textile Strategy "Circular Prosperity-in-the-circular-economy", which stimulates the implementation of the circular economy. The strategy for achieving the circular economy of textiles in the EU include 12 issues that form three main areas: building partnerships, increasing demand and consumer education. The garment industry in the Republic of Moldova is also oriented to implementation of the circular business model. Thus the Strategic Roadmap "Rebuilding a Sustainable Light Industry in Moldova" was adopted in 2020, a policy document that represents a roadmap for transforming the Moldovan textile / garment industry according with EU market prospects. This document includes strategic recommendations on the implementation of sustainability and circular models.

The modeling of a circular business ecosystem for textiles must be based on the principles of the circular economy with four value cycles as its backbone: Maintenance, Repair; Reuse as a product; Material reuse, re-manufacturing and recycling. Based on the waste management hierarchy, the prevention of waste formation is a priority. So the circular design of the product and service plays a decisive role.

The circular business ecosystem in the textile industry in the European Union is beginning to be implemented and includes both efficient use of materials in product design, product life extension services and directing products for reuse. Some companies have already invested in launching circular business models. But most of the solutions already delivered face barriers that no company could address on its own. That is why it is necessary

to create partnerships for an efficient collaboration, communication and coordination for the achievement of the proposed goals.

In the Republic of Moldova there are several initiatives for the collection and recycling of textiles. These initiatives belong to various non-profit organizations that act to improve the environment. Existing initiatives contribute to the collection and recycling of textile waste from both the pre-consumption stage and the post-consumption stage. The initiatives aimed to implement the circular business models that exist in the Republic of Moldova are mainly oriented to extend the life of the product. However, these initiatives are quite few and are at an early stage and need further development. A more recent initiative launched by the APIUS association is to try to implement sharing platforms in order to increase the utilization rate of raw materials and accessories. As result the Stocktextil online platform has been launched, which is a very advantageous and convenient option for establishing and maintaining collaboration between companies, offering an internal chat box for communication between companies. The designers are interested in implementing circular economy business models. They develop design for durable products using renewable, sustainable and recyclable organic fabrics.

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#### References

- 1. European Parliament. Waste management in the EU: infographic with facts and figures. [Online]. Available at: https://www.europarl.europa.eu/news/en/headlines/ society/20180328STO00751/eu-waste-management-infographic-with-facts-and-figures
- 2. Common borders. Common solutions. The ptoject funded by EU. Manualul privind Managementul Deşeurilor. [Online]. Available at: https://wmp.qe/wmp2/wp-content/uploads/2019/11/BSB-457 3R RO.pdf
- 3. Jacotă R. Fast fashion: cât poluează "industria cârpelor". National, 2021. [Online]. Available at: https://www.national.ro/diverse/fast-fashion-cat-polueaza-industria-carpelor-733052.html
- 4. Ce sunt deșeurile textile și ce se întâmplă cu ele?. Bine boutique. [Online]. Available at: https://bineboutique.ro/ce-sunt-deseurile-textile-si-ce-se-intampla-cu-ele/
- 5. Circular textiles. Responding in the Circular economy. EURATEX, January 2020. [Online]. Available at: https://euratex.eu/wp-content/uploads/EURATEX-Prospering-in-the-Circular-Economy-2020.pdf
- 6. Closing the loop An EU action plan for the Circular Economy. Communication of the European Commission 2.12.2015 COM (2015) 614 final. [Online]. Available at: https://eurlex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC\_1&format=PDF
- 7. Dirk Vantyghem, Serge Leon, Giovanni Beatrice, Maria Gheorghita și alții "Reconstruirea unei industrii ușoare durabile în Moldova". Foaie de parcurs strategică. Plan de acțiune de recuperare pe termen mediu în era post-Covid-19. Chisinau, 2020. [Online]. Available at: https://www.apius.md/reconstruirea-unei-industrii-uoare-durabile-in-moldova
- 8. Circular Advantage. Innovative Business Models and Technologies to Create Value in a World without Limits to Growth. Accenture Strategy. 2014. [Online]. Available at: https://www.accenture.com/t20150523t053139\_w\_/us-en/\_acnmedia/accenture/conversion-assets/dotcom/documents/global/pdf/strategy\_6/accenture-circular-advantage-innovative-business-models-technologies-value-growth.pdf
- 9. Antikainen M., Valkokari K. A Framework for Sustainable Circular Business Model Innovation. Technology Innovation Management Review, July 2016 (Volume 6, Issue 7) [Online]. Available at: https://timreview.ca/sites/default/files/article\_PDF/AntikainenValkokari\_TIMReview\_July2016.pdf
- 10. Fontell P., Heikkilä P. Model of circular business ecosystem for textiles. VVT 2017. [Online]. Available at: https://publications.vtt.fi/pdf/technology/2017/T313.pdf

- 154
- 11. Ellen MacArthur Foundation (2017a) System diagram. [Online]. Available at: https://ellenmacarthurfoundation.org/circular-economy/interactive-diagram.Ellen
- 12. LEGE Nr. 209 din 29-07-2016 privind deşeurile. [Online]. Available at: https://www.legis.md/cautare/getResults?doc\_id=96742&lang=ro
- 13. Abigail Beall. Why clothes are so hard to recycle. Future, 2020. [Online]. Available at: https://www.bbc.com/future/article/20200710-why-clothes-are-so-hard-to-recycle
- 14. Ministerul Mediului al RM. Lista autorizațiilor eliberate întreprinderilor care desfășoară activități de gestionare a deșeurilor. [Online]. Available at: https://mediu.gov.md/ro/content/lista-autoriza%C8%9Biiloreliberate-%C3%AEntreprinderilor-care-desf%C4%83%C8%99oar%C4%83-activit%C4%83%C8%9Bi-degestionare-0
- 15. 13 locații în Chișinău pentru colectarea și reciclarea deșeurilor. Jurnalul verde. [Online]. Available at: https://jurnalulverde.info/locatii-colectarea-reciclarea-deseurilor-chisinau/
- 16. From the heard shop. [Online]. Available at: https://fth.md/catalog/artizanat
- 17. Primul magazin caritabil din Moldova. [Online]. Available at: https://www.facebook.com/shopmesto/
- 18. Banca de haine. [Online]. Available at: https://diaconia.md/proiecte/banca-de-haine/
- 19. EcoVisio FreeShop de cadouri (și haine). [Online]. Available at: https://www.facebook.com/events/1984838588230952/
- 20. Stoktextil. [Online]. Available at: https://stocktextil.md/

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# THE ROLE OF FINANCIAL-ACCOUNTING INFORMATION IN THE DECISION-MAKING PROCESS

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**Abstract**. The informational system of an entity is based on accounting information obtained from the accountants, which is transmitted to process financial analysts in order to obtain a new product: financial information. This allows internal and external users who have a financial interest in the entity to make optimal management decisions. This research aims to highlight the role and importance of financial-accounting information in the decision-making process, to look back on the emergence, development and perpetual improvement of the entity's information system, to reflect how new requirements for financial-accounting information have led to the emergence of new attributions and responsibilities of the accountants, to analyze the provisions of the normative framework and of the specialized literature regarding the financial-accounting information, to explain the difference between the accounting information and the financial information, and as a result - to present the interdependence between financial-accounting information and the decision-making process.

**Keywords:** financial information, accounting information, decision-making process.

Rezumat. La baza sistemului informațional al unei entități stă informația contabilă aflată în responsabilitatea contabilior, ulterior fiind transmisă spre prelucrare analiștilor financiari pentru a obține un nou produs - informația financiară. Aceasta permite luarea decizilor manageriale optime de către utilizatorii interni și externi cu interes financiar asupra entității. Prezenta cercetare urmărește reliefarea rolului și importanței informației financiar-contabile în procesul decizional, să privească în retrospectivă apariția, dezvoltarea și îmbunătățirea perpetuă a sistemului informațional al entității, să reflecte modul în care noile cerințe atribuite informației fiannciar-contabile au condus la apariția noilor atribuții și responsabilități ale contabililor, să analizeze prevederile cadrului normativ și ale literaturii de specialitate cu privire la informația financiar-contabilă, să explice diferența dinte informația contabilă și informația financiară și, ca finalitate, să prezinte interdependența dintre informația financiar-contabilă și procesul decizional.

**Cuvinte-cheie:** informație financiară, informație contabilă, proces decisional.

#### Introduction

The dynamism and scale of perpetual developments in all spheres of economic and social life have led to the development of society as a whole and the progress of economic structures, increasing the efficiency of exploiting the potential of human, material, financial and informational resources.

According to history, since the middle ages, due to the trade in Italian city-states, a complex system of records called "double-entry accounting" has emerged. The liberal accounting profession developed late, laying its foundations in the 18th century, with the establishment of the first professional organizations for accountants.

From an evolutionary point of view, the technique of double entry accounting has changed insignificantly, but the perspective on the object and content of the financial statements has changed, thus, as the economic units proliferate, the demand for accounting services has increased, the profession becoming an integral part of the financial system and business.

Based on the fact that the importance of accounting increases with the level of economic development of a country, as a result of accounting development, it has become an informational system on which depends the distribution of resources throughout the economy. However, "even before there was a theoretical system that formally specified its role, information was the engine of development, so that new knowledge is built on the support of existing ones, by analyzing and interpreting information and making decisions about future actions or to the evaluation of previous actions" [1].

Accounting is also interpreted as an informational discipline, based on the perspective of studying the effects of economic transactions and other events on the economic and financial situation, as well as on the performance of an entity aimed at informing internal and external users. Due to the language, principles, own system of concepts and procedures, accounting is the only source that can provide financial-accounting information about an organization, eloquent information that underlies the assessment of the organization by users.

# **Research Objectives**

The current research focuses on the role and importance of information provided by accounting and its usefulness in decision-making process. Analyzing the search engines, scientific articles and literature, it can be seen that the authors' research on the decision-making process is not numerous, although there are many studies on the role of accounting and the information provided by it, also related to the decision-making process. However, the decision-making process is widely discussed in the field of business unit management.

The purpose and objectives of the research derive from the challenges encountered in the *activity of accountants and financial analysts* - responsible for obtaining, processing, synthesizing information obtained from economic transactions and providing it to the internal and external environment of the entity, or rather, users of financial information, whose informational needs constantly increase, as well as the requirements for its quality. The purpose of the research is

Thus, the purpose of the research is to analyze and compare the terms of financial information and accounting information, and to identify its impact for the decision-making process. The *general objective* of the research is to argue the role and usefulness of the

financial-accounting information in the decision-making process, based on which was established several *secondary objectives*, as follows:

- to research the provisions of the normative framework related to financial-accounting information;
- to argue the possession and systematic modernization of the financial-accounting information system;
- to perform comparative analysis of the specialized literature, opinion of the national and foreign authors related to the role of the financial-accounting information;
- to present the accounting informational system architecture;
- to reflect the interdependence between the financial-accounting information and the decision-making process.

# Research Methodology

In order to achieve the proposed objectives, the theoretical approach of the issue was used. Thus, several research methods were used during the research, among which:

**Analytical method** - analysis of theoretical aspects starting from the research of the normative framework (national and international normative acts) and literature (local and foreign authors);

*Webographic analysis* - use of search engines like Web of Science, specialized websites, Google Scholar platform, VOSviewer software, literature and scientific articles;

**Comparison method** - the examination in antithesis of the provisions related to the financial-accounting information on national and international level, as well as the establishment of the interpretation differences between the accounting information and the financial information;

**Systemic method** - personalized argumentation of the information proposed in this paper and motivation for its selection, coherence of thoughts and interpretations;

**Synthesis method** - research of different approaches and generalization of the identified information, cohesion of the information found in various researches and synthesis of the main idea;

*Induction method*, which allowed to substantiate the main points and conclusions of this scientific article;

The combined and consistent application of the research methods listed above has helped to substantiate the scientific arguments related to the role of financial-accounting information revealed further in the context of this paper.

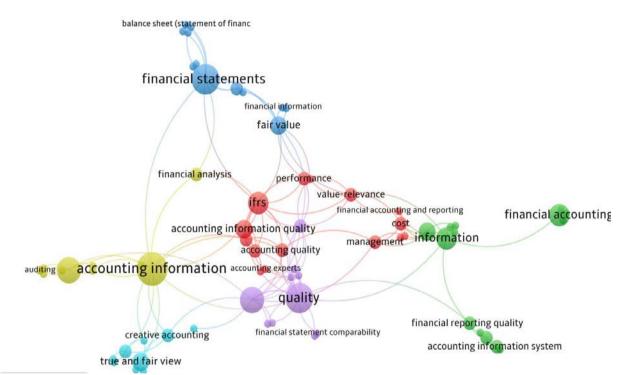
# Review of the Legal Framework and Literature

The requirements related to the content and quality of the financial-accounting information are provided by the accounting normative framework and the specialized literature. The treatment of financial-accounting information from the perspective of normative acts, especially the Law on Accounting and Financial Reporting, derived from the fundamental and enhancing qualitative characteristics of financial-accounting information. At the same time, the significance and the way of outsourcing the financial-accounting information within the economic units are found in the National Accounting Standards (NAS), as well as in the International Financial and Reporting Standards (IFRS).

In order to investigate the main directions of research in the scientific field related to financial accounting information, we analyzed the keywords from the abstracts of the articles published in Web of Science (Figure 1) using the VOSviewer software tool for constructing

and visualizing bibliometric networks. A total of 9,825 articles were analyzed, published between 2011 and 2021 in such journals as: Contemporary Accounting Research, Journal of Accounting and Economics, Journal of Accounting Research, Review of Accounting Studies, and The Accounting Review, with the main search keyword "financial accounting information".

In the Figure 1 are presented six interdependent groups (clusters), focused on the financial-accounting information term. The largest group (in red) covered topics related to accounting information, IFRS, accounting quality, comparability, accounting experts, value-relevance, earnings quality, financial expertise, etc.



**Figure 1.** The key concepts related to financial accounting information used in the most relevant scientific papers published between 2011-2021.

Source: Developed by the author.

The second group (in green) covered issues related to business performance, decision-making process, financial accounting, financial reporting comparability, financial risks, managerial accounting and strategic decisions.

The third group (blue color) addresses topics such as accounting system, balance sheet, financial information, financial statements, fair value, information users, transparency.

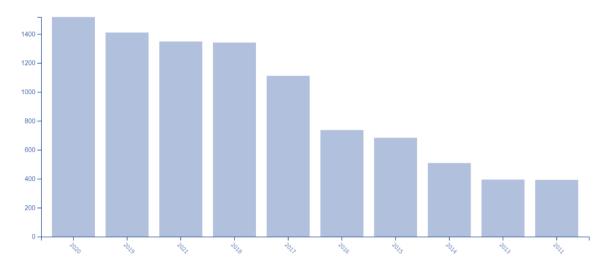
The fourth group (yellow color) includes as research topics the following terms: auditing, financial management control, key performance indicators, information system, accounting principles.

The fifth cluster (purple) is developed on topics related to information risk, internal control, quality, efficiency.

The sixth cluster (azure color) revolves around items such as creative accounting, credibility, fair value, relevance, transparency, true and fair view, reliability of financial reporting.

Based on the bibliometric vizualization from the Figure 1, the authors concluded that the groups of notions included in the clusters 1 - 6, highlighted the most often studied key terms related to financial – accounting information such us: quality, relevance, fair value, financial statements, financial accounting, accounting information and performance, which reflects the main subjects to discussions, analyzed by the researches from the economic, management and business field.

The keyword relationships presented in the visualization are formed mainly between publications that belongs to the same cluster. In addition, the view shows that groups 1, 3, 4, and 5 (shown in red, blue, yellow and purple) are more interconnected than the other groups. Thus, the group 2 and 6 (shown in green and azure) represents more independent clusters.



**Figure 2.** Quantitative evolution of the global scientific research related to financial accounting information topic between 2011-2020.

Source: Developed by the author.

The main part of studies were published within the period 2017 - 2020, the higher number of 1517 scientific papers being published in 2020 (Figure 2). The constantly increase in the number of researches prove the raising demand for studying the aspects and role of financial accounting information, as well as identifying its impact on different aspects from the economic, management and business field.

The role of the accounting information in the decision-making process is widely described in the works of local researchers: Grigoroi L., Lazari L. Bădicu G., Mihaila S., Panuş V., Țurcanu V., but also foreign researchers as: Feleagă N., Nedless B., Colasse B., Epuran M., Lande E. etc.

The research of the specialized literature shows that the treatment of the role of accounting and financial-accounting information in the decision-making process is treated differently. In the view of the author Bîrcă A. "accounting is an element that keeps all the information and presents it, upon request, to decision makers" [2, p. 13-14]. The same approach is supported by the french scientist Delesalle Eric who mentioned that "accounting is a technique that allows the interpretation or measurement of economic events by providing financial information", and its objective is "to measure and translate the entity's activities" [3]. This approach emphasizes the process of measuring, quantifying and accurately representing accounting information as well as financial information, that are the sources of information

on which the entity's managers rely in the decision-making process. On the other side, the french author Colasse, B. comes with a broader approach, aiming that "accounting is a management method with a social role, given the fact that based on accounting information, are made decisions that change the wealth of individuals and social groups" [4].

Thus, based on the above mentioned authors, the final point of the financial-accounting information path is the the decision taken by the users. The same idea is revealed by the scientist N. Felegă who state that "the common point of view of the different authors and accounting bodies regarding the main objective of financial information is to be useful to different users in the decision-making process" [5].

Taking into account that the main part of the decisions issued by the entity's management are based on the information provided by accounting, in order to emphasize its role, the Romanian author Epuran, M. defines accounting information as "specific economic information, produced through processing the methods, procedures and tools" [6, p.29]. In the same vein, the local authors, Bădicu, G. and Mihaila, S. pointed out that despite the functioning of a single accounting system, "it is built in such a way that, by regrouping the initial data, those information which can help the users to make the right decisions should be made available" [7, p.22]. This approach put the accent on the flexibility of the accounting information, based on its continuous adaptable character under the users needs, which leads to obtaining the financial information.

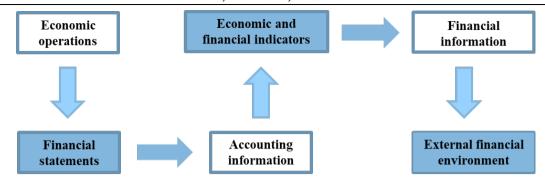
Based on the performed research, the authors concluded that the term of financial-accounting information represents a set of data which initially is based on the large spectrum of the accounting information, which after applying different procedures, calculations, selections and formulas, can be managed in a specific manner in order to obtain financial information adapted to the different and specific users needs.

Financial-accounting information is one of the main sources of information of any decision-making system, "from production reporting to preparation of annual statements, the purpose is the same: to support various categories of users in choosing the optimal solutions" [8]. We support the idea that the main purpose of financial accounting information is to provide utility or relevance to the entity's managers in the decision-making process. The cycle of accounting-financial information involves at the first stage the quantification and expression of economic events and transactions in qualitative and quantitative terms, which at the final stage are systematized and converted in a flexible and adaptible information in dependence of the users needs.

#### The Architecture of the Accounting Informational System

Accounting is the most important element of the information system, because the managerial decisions are analyzed and made mainly based on the information provided by accounting. So, the usefulness of the accounting information gathered in the financial statements is demonstrated by the efficiency of the financial communication in terms of informing users for making decisions.

In order to overcome the difficulties of interpretation, we aim to elucidate the differences between accounting and financial information, as well as the possibility of matching these terms. Thus, the financial communication is based on both accounting and financial information, these two categories are different on their source and purpose (Figure 3).



**Figure 3.** The informational route within the economic units. Source: Developed by the author based on [9].

As it is shown in Figure 3, the quality of the financial information depends on the quality of the accounting information. Based on the fact that the last one has a systematic character, coherent nature and the diversity of information provided by accounting, it makes the accounting system the main source of information indispensable for the decision-making process. At the same time, theese two categories of information demonstrate in practice a series of characteristics through which they are differentiated (Table 1).

Comparative analysis of accounting and financial information

Table 1

| How to obtain the information                     | Through accounting accounts takes place the processing of economic operations and a patrimonial transactions.                          | Obtaining information precedes processing of the accounting information provided, using economic and financial indicators.  |  |
|---|--|---|--|
| Source of information                             | The basic source of the accounting information can be found in the financial statements.   | The information is obtained after processing the financial statements, through providing economic and financial indicators. |  |
| Responsible persons for obtaining the information | Accountants are responsible for informational management.  | Financial analysts process the information obtained from accountants and presents a new approach.                           |  |
|   | Internal and external users: owners, employees, authorized state bodies, the entity itself, etc.  Source: Developed by the author base | External financial environment: owners, financial institutions, the capital market, new investors, etc                      |  |

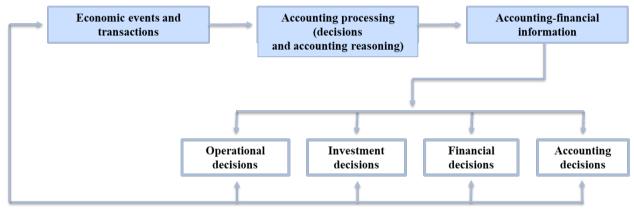
# Usefulness of Financial-Accounting Information in the Decision-Making Process

In the spectrum of accounting functions, the basic one is the *information function* that consist of the provision of information on the structure and dynamics of assets, financial situation and economic and financial results obtained in order to make a decision.

The economic decision-maker, at the microeconomic level, needs information that comes from both the external and internal environment. Accounting information is essential for economic decision-making by the entity's management. In their concern to provide an accurate picture for decision makers, "accountants apply reasoning (professional judgement according to International Accounting Standards (IAS)), which means that they have right to use one treatment or another in order to provide thruthul information" [11].

The decision-making process, mainly the accounting decision, have a considerable impact due to the reconsideration of the chief accountant responsibilities, who contributes with his professional judgement in the same way as the director for the purpose of the correct management of the entity, control of activity, efficient management of resources, such as: planning, organizing, coordinating, leading and controlling.

As a result, the authors states that the basis for decision making is information and knowledge build on professional judgement. Since the decisions are based on information, in the figure below is presented the relation between accounting-financial information and different types of decisions (Figure 9).



**Figure 9.** Interdependence of accounting-financial information and decision making process.

Source: Developed by the author based on [11, 12].

According to Figure 9, accounting financial information is used for different types of decisions such us operational decisions, investment decisions, financial decisions and accounting decisions. At all stages of the decision-making process, different information is used and in these situations the role of accounting is significant since the accounting system monitors whether the information meets the requirements of usefulness and necessity for the process of making managerial decisions, and as a result leads to qualitative decisions. Thus, "the supply and demand for the accounting reports has increased considerably, which also leads an increase of the requirements for the accounting information provided by accounting, necessary for users in the decision-making process" [13]. The quality of current and strategic decisions and, directly, the future results of the entity depend on the importance and quality of the information [14, p. 198].

Taking into account that the accounting information is the most accurate, complete and operational, its use allows taking optimal economic decisions in order to ensure and carry out an efficient activity in the current conditions of business.

# **Conclusions**

Information in general, and accounting in particular, is constantly changing in the current economic turmoil. In this research we focused on elucidating the usefulness of financial-accounting information in making decisions at the entity level.

The authors agrees with the opinion of the scientist Vatasoiu C., who stated that "the adoption of reasonable decisions that correspond to market reality and contribute to solving problems that have arisen in the economic and financial activities of the entity, depends on the quality and quantity of information provided by the accounting informational system" [15].

A well-organized information system, which contains relevant indicators for managers, acquires an increasingly important role for the entity, partners and other users. So, from this point started accurate representations of economic phenomena and processes, which represent the consistent, complete and timely information. That means that accounting information is the epicenter of an entity's informational system or, in other words, the origin of the decision-making process. Thus, in order to make a sound and well-reasoned decision it is necessary to use and process the qualitative and fair data provided by the accounting information system.

#### Reference

- 1. Vătășoiu C. I., Gheorghe M. ș.a. *Informația contabilă baza analizei financiare in deciziile de investiții*. În: Analele Universității "Constantin Brâncuși" din Târqu Jiu, Seria Economie, Nr. 4/2010, p.244-254.
- 2. Grigoroi L., Lazari L., Bîrcă A. ș.a. *Contabilitatea întreprinderii*, Chișinău: ed. rev. și actualizată. Cartier: ASEM (Tipogr. "Bons Office"), 2021,800 p, ISBN 978-9975-75-984-7.
- 3. Delesalle E., Lande E., Blin P., Denos P. şi al. *Contabilitatea financiară aprofundată. Ediția a 2-a, rev.* Bucureşti: Editura Economică, 2002, 416 p, ISBN: 973-590-601-5.
- 4. Colasse B. Les fondements de la comptabilité. Éditions Découverte, Paris, 2007, 121 p, ISBN 978-2-7071-5202-2.
- 5. Feleagă N. *Îmblânzirea junglei contabilității concept și normalizare în contabilitate.* București: Editura Economică, 1996, 285 p., ISBN 973-9198-18-X.
- 6. Epuran M., Băbăiţă V., Imbrescu C. *Teoria contabilității*. Bucureşti: Editura Economică, 2004,464 p, ISBN 973-709-026-8.
- 7. Bădicu G., Mihaila S. *Bazele contabilității*: Note de curs. 2019., Ed.:ÎS, Tipografia Centrală", 2019, 220 p, ISBN 978-9975-146-93-7.
- 8. Panuş V. *Rolul informației contabile și caracteristica generală a procesului decizional*. În: Revista Științfică a Universității de Stat din Moldova, 2010, nr.2(32), p.217-222.
- 9. Lazari L., Țurcan L. *Relevanța informațiilor contabile în procesul decizional*. Contabilitatea, auditul și analiza economică între conformitate, schimbare și performanță. Conferința științifică internațională din 2 aprilie 2015, Chișinău: ASEM, p. 12-18.
- 10. Lazari L. *Influența proceselor de armonizare contabilă asupra comunicării economico-financiare*. Analele ASEM, ed. a X-a, 2012, p.254-256.
- 11. Mihalache S. C. *Aspecte privind informațiile și deciziile contabile*. Analele Științifice ale Universității "Alexandru Ioan Cuza" din Iași, 2004/2005, p. 186-192.
- 12. Mihailă S., Grosu V. Repere privind procesul de armonizare financiar-contabilă al Republicii Moldova în contextul integrării în Uniunea Europeană //Probleme moderne de dezvoltare ale Uniunii Europene și relațiile dintre Republica Moldova și UE. 2016. C. 159-166.
- 13. Dolghi C. *Rolul informației contabile în procesul decizional*. Conferința "Integrare prin cercetare și inovare", Chișinău, Moldova, 28-29 septembrie 2016, p.199-202.
- 14. Mihailă S., Bădicu G. *Informația contabilității de gestiune-sursă fundamentală în analiza performanței si dezvoltării durabile a entităților* //Paradigma contabilității și auditului realități naționale, tendințe regionale și internaționale. 2016. C. 198-204.
- 15. Vătășoiu C. I., Gheorghe M. ș.a. *Informația contabilă baza analizei financiare in deciziile de investiții*. Analele Universității "Constantin Brâncuși" din Târqu Jiu, Seria Economie, Nr. 4/2010, p.244-254.

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# IMPROVING THE PROCESS OF MONITORING OF IMMOVABLE PROPERTY COLLATERAL

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**Abstract.** Mortgage lending is accompanied not only by the risk of default but also by the risk of deterioration, loss of value or reduction in the value of immovable property collateral. One of the main internationally recommended methods to determine whether the parameters of the mortgaged object, the value, the conditions of its maintenance and operation, the operating requirements are in line with the conditions originally laid down in the mortgage contract is Monitoring. The author, analysing the practices of commercial banks, proposes concrete tools to improve the Monitoring mechanism of mortgaged real estate in the conditions of Moldova. This mechanism is recognized as an important tool for credit risk management but is currently not well defined in the national regulations and mortgage policies of credit institutions.

**Keywords:** Immovable property collateral, credit risk, monitoring, revaluation, statistical models.

**Rezumat.** Acordarea împrumuturilor ipotecare este însoțită nu doar de riscul nerambursării ci și de riscul deteriorării, pierderii valorii sau reducerii valorii garanțiilor imobiliare. Una din metodele de bază, recomandate pe plan internațional, pentru determinarea corespunderii parametrilor obiectului ipotecat, a valorii, a condițiilor de întreținere și funcționare a acestuia, a cerințelor de exploatare cu condițiile stabilite inițial în contractul de ipotecă este monitorizarea. Autorul, analizând practicile băncilor comerciale, propune instrumente concrete de perfecționare a mecanismului de monitorizare a bunurilor imobile ipotecate în condițiile Republicii Moldova. Acest mecanism este recunoscut ca un instrument important pentru managementul riscului de credit, dar în prezent nu este bine definit în reglementările naționale și politicile ipotecare ale instituțiilor de credit.

**Cuvinte cheie:** bun imobil ipotecat, risc de credit, monitorizare, reevaluare, modele statistice.

#### Introducere

Ipoteca bunului imobil reprezintă principala măsură de asigurare a creditorului în caz de incapacitate de plată a debitorului, dar tot odată el nu poate oferi o garanție absolută față de riscurile imprevizibile care pot afecta negativ garanția (riscul scăderii valorii, riscul de deteriorare, riscul de lichiditate scăzută) [1 - 3]. Aceste riscuri sunt luate în considerare doar atunci când se constată neachitarea împrumutului. Probabilitatea apariției unor categorii din riscurile menționate poate fi redusă. Cea mai simplă și eficientă cale de prevenire a riscurilor

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este monitorizarea proprietății ipotecate cu o anumită frecvență pentru fiecare tip specific de proprietate.

Începând cu mai 2018, în urma aprobării Regulamentului nr.111 din 24 mai 2018 cu privire la tratamentul riscului de credit pentru bănci, care transpune prevederile Regulamentul nr. 575/2013 al Parlamentului European și al Consiliului din 26 iunie 2013 privind cerințele prudențiale pentru instituțiile de credit și societățile de investiții și de modificare a Regulamentului (UE) nr. 648/2012, băncile trebuie să monitorizeze valoarea bunurilor imobile în mod frecvent și cel puțin o data la 3 ani în cazul bunurilor imobile locative și în fiecare an în cazul bunurilor imobile nelocative [4].

În Regulament, este definit clar aspectul periodicității (frecvența) monitorizării, dar nu este clar *ce presupune monitorizarea valorii*. Este oare monitorizarea echivalentă cu reevaluarea, include oare monitorizarea și inspectarea bunului imobil ipotecat?

Noțiunea de revizuire a valorii este prea abstractă și nu este clar dacă un evaluator intern angajat al Băncii, poate revizui valoarea și poate fi considerat acel rezultat sau nu în sistemul Băncii, ulterior raportată valoarea pentru calculul cerințelor de capital.

De asemenea, în Regulament nu este menționat dacă monitorizarea presupune inclusiv inspecția fizică a bunurilor ipotecate, astfel fiece bancă poate interpreta în mod diferit cele expuse.

Procedura de verificare periodică (monitorizare) a bunului ipotecat, metodologia de evaluare în contextul monitorizării, statutul persoanelor care pot îndeplini astfel de monitorizări până la momentul prezentei analize nu se regăsește în procedurile interne ale băncilor.

# Prevederi privind Monitorizarea Bunului Imobil Ipotecat

În opinia cercetătorilor [1, 2, 5, 6], monitorizarea bunului ipotecat – reprezintă un complex de măsuri destinate controlului caracteristicilor cantitative, calitative și a valorii acestuia precum și a caracteristicilor juridice, modalităților de întreținere pe parcursul contractului de ipotecă.

Scopul principal al monitorizării constă în determinarea corespunderii parametrilor obiectului ipotecat, a valorii, a condițiilor de întreținere și funcționare a acestuia, a cerințelor de exploatare cu condițiile stabilite inițial în contractul de ipotecă.

Sarcina fundamentală a monitorizării imobilelor ipotecate este de a identifica în timp util orice factor sau condiții care reduc sau ar reduce potențial în viitorul apropiat din calitățile cantitative și calitative ale acestei proprietăți, precum și alte încălcări ale condițiilor contractuale, în scopul formării unui set de măsuri pentru protejarea obiectului și bineînțeles a intereselor băncii [6, 7].

Verificarea bunului primit drept garanție ar trebui să genereze un efect adăugător de disciplinare a debitorilor, stimulând o atitudine corespunzătoare față de bunul depus drept garanție ipotecară și să îndeplinească obligațiile de achitare la timp.

Verificarea obiectului ipotecat, este prevăzută prin articolul 732 al Codului Civil, care indică că creditorul ipotecar are dreptul, în orice perioadă de acțiune a contractului de ipotecă, cu condiția notificării prealabile a debitorului ipotecar și, după caz, a deținătorului bunului ipotecat, să verifice în drept și fapt existența, starea fizică, condițiile de păstrare și folosire a obiectului ipotecii [3].

În codul Civil nu se face referire la obligativitatea reevaluării ca rezultat al verificării, pe când Regulamentul nr. 111 din 24 mai 2018 cu privire la tratamentul riscului de credit pentru

bănci, prin anexa nr. 2, prevede obligativitatea monitorizării și reevaluării, însă aspectul monitorizării si reevaluării nu este detaliat.

Prevederile regulamentului constituie o transpunere a prevederilor Autorităților Europene de reglementare bancară. Aliniatul 3 al Articolul 208 "Cerințe privind garanțiile sub forma bunurilor imobile" al Regulamentul nr. 575/2013 al Parlamentului European și al Consiliului din 26 iunie 2013 [9] cuprinde cerințele prudențiale pentru instituțiile de credit și societățile de investiții. Aceleași cerințe și recomandări sunt cuprinse în Regulamentul (UE) nr. 648/2012 modificat:

- ✓ Instituțiile de creditare trebuie să dispună de măsuri de reglementare, pentru a monitoriza valoarea bunurilor în mod frecvent, și anume cel puțin anual în cazul bunurilor imobile nelocative și cel puțin o dată la trei ani în cazul bunurilor imobile locative. Este necesar ca instituțiile de creditare să efectueze monitorizări mai frecvent, atunci când condițiile de piață se confruntă cu schimbări semnificative.
- ✓ Instituțiile trebuie să dispună de proceduri care le permit să se asigure că bunurile imobile luate ca garanție sunt asigurate corespunzător împotriva riscurilor de deterioare.
- ✓ Valoarea bunurilor imobile este verificată atunci când anumite informații disponibile unităților financiare indică faptul că valoarea acestora ar fi putut să scadă semnificativ în comparație cu prețurile generale ale pieței, iar această verificare trebuie să fie efectuată de un expert independent care are calificarea, abilitățile și experiența necesare pentru a efectua și este independent de procesul decezional privind acordarea creditului.
- ✓ Instituțiile pot utiliza metode statistice în scopul revizuirii valorilor ți a identifica acele proprietăți care necesită reevaluare.

Monitorizarea bunurilor imobile ce servesc drept garanții este prevăzută și în prevederile capitolului 7.2 al Ghidului privind inițierea și monitorizarea creditelor, EBA/GL/2020/06 [10].

Ghidul menționează că întru monitorizarea valorilor bunurilor imobile, instituțiile de creditare trebuie să instituie în politicile interne proceduri care să specifice abordarea și frecvența monitorizării garanțiilor reale imobiliare. Aceste politici trebuie să țină cont de tipul bunului imobil, calitatea creditului acordat, stadiul de dezvoltare a imobilului, valoarea imobilului, modificarea condițiilor de piață.

Prevederile art. 222 al Ghidului menționat cuprind indicații privind necesitatea stabilirii unei frecvențe adecvate pentru revizuirea valorii garanției reale, ținând cont de tipul garanției și valoarea acesteia la momentul acordării creditului. Se recomandă, de asemenea, să se țină cont de faptul că frecvența monitorizării imobilelor nefinalizate ar trebui să fie mai mare decât cea a imobilelor finisate; frecvența monitorizării imobilelor cu valoari mai mari, sau cu un raport LTV ridicat să fie mai mare decât cea a imobilelor cu valori mai mici sau cu raport LTV scăzut; iar frecvența monitorizării bunuri imobile care asigură credite cu o calitate mai scăzută (credite cu o performanță scăzută/risc de neplată ridicat) va fi mai mare decât în cazul bunurilor imobile care asigură credite similare cu o calitate superioară.

O altă prevedere importantă se regăsește în aliniatul 225 și 226 și ține de actualizarea valorilor de către Bancă și de fapt fac referință la actualizarea valorii în sistemele informaționale ale Băncii. În conformitate cu aceste articole, se prezumă faptul că în situațiile în care în urma revizuirii valorilor de către instituție, sunt constatate careva schimbări esențiale ale valorii, instituțiile pot actualiza valoarea garanției reale imobiliare fie prin fie printr-o reevaluare efectuată de un evaluator, fie prin modele statistice care să țină cont de caracteristicile individuale ale imobilului și ale zonei geografice.

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După cum putem observa reglementările existente indică necesitatea executării unor proceduri necesare însă nu specifică modalitățile și oferă "spațiu de manevră" pentru fiecare instituție bancară.

#### Caracteristicile Procesului de Monitorizare

Odată cu creșterea portofoliilor de garanții ipotecare, în special cantitativ există necesitatea de a stabili, a optimiza frecvența de monitorizare a imobilului ipotecat și a identifica un raport acceptabil al frecvenței monitorizării și a cheltuielilor necesare pentru efectuarea acestuia. Având în vedere faptul că portofoliul de garanții ipotecare include în sine diferite tipuri de imobile prin urmare procesul de monitorizarea a acestora va cuprinde particularități concrete [15]. De regulă instituțiile de creditare din R.Moldova efectuează o monitorizare documentară în baza verificării Rapoartelor de evaluare prezentate de debitor, atât în calitate de monitoring inițial cât și ulterior. Analiza practicii autohtone ne arată că băncile nu au specialiști și structuri care ar efectua monitorizarea obiectelor ipotecate sau acestea au un caracter parțial, incomplet. Însă, luând în considerație durata contractelor ipotecare, necesitatea menținerii calității ipotecii atât din punct de vedere fizic (cantitativ și calitativ), a valorii sale pe întreaga durată a contractului, considerăm că organizarea direcțiilor de monitorizare a ipotecii reprezintă o măsură importantă de reducere a riscurilor ipotecare.

Procesul de monitorizare poate fi examinat din diferite puncte de vedere, în conformitate cu diferite criterii, precum: scopul, orientarea, obiectivele monitorizării, sursa de informatie, tipologie, proceduri, periodicitatea (Tabelul 1).

Tabelul 1

Clasificarea monitorizării bunurilor imobile ipotecate

| Criterii de clasificare                  | Tipurile monitorizării                   |  |  |  |  |
|--|--|--|--|--|--|
|  | Informațional                            |  |  |  |  |
| Scopul monitorizării                     | De bază                                  |  |  |  |  |
|  | Problematic                              |  |  |  |  |
| Orientarea monitariaŭrii                 | Condiționat de factorii interni          |  |  |  |  |
| Orientarea monitorizării                 | Condiționat de factorii externi          |  |  |  |  |
|  | Un debitor                               |  |  |  |  |
| Obiectele monitorizării                  | Un portofoliu                            |  |  |  |  |
|  | Un bun imobil                            |  |  |  |  |
|  | Inspectară bunului imobil                |  |  |  |  |
|  | Analiza pieței                           |  |  |  |  |
| Curro do informatii                      | Raport de evaluare                       |  |  |  |  |
| Sursa de informații                      | Revizuire pe baza modelelor statistice   |  |  |  |  |
|  | Consultații cu firme specializate        |  |  |  |  |
|  | etc                                      |  |  |  |  |
| Tipurilo monitorizării                   | Monitoring inițial                       |  |  |  |  |
| Tipurile monitorizării                   | Post-monitoring (monitorizare periodică) |  |  |  |  |
| Dragodywile                              | Standarde                                |  |  |  |  |
| Procedurile                              | Ne standarde                             |  |  |  |  |
| Periodicitatea                           | Anuală                                   |  |  |  |  |
|  | O dată la 3 ani                          |  |  |  |  |
|  | La necesitate                            |  |  |  |  |
|  | La solicitare                            |  |  |  |  |
| Sursa: Flahorat de autor în haza [11 12] |  |  |  |  |  |

Sursa: Elaborat de autor în baza [11, 12].

În opinia autorului monitorizarea bunurilor imobile în cadrul instituțiilor de creditare trebuie să posede o periodicitate clară (anual sau la 3 ani), să fie organizată într-o structură separată și să cuprindă următoarele activități:

- Verificarea stării proprietății
- Verificarea exploatării
- Confirmarea dreptului de proprietate (lipsa grevărilor dreptului de proprietate)
- Controlul corespunderii valorii cu valoarea de piață (revizuirea valorii)
- Determinarea gradului de asigurare

Rezultatele monitorizării (Figura 1) pot fi utilizate pentru a primi decizii manageriale (în cadrul funcției de politică de risc a băncii) privind modificări ale bazei contractuale cu reflectată noii valori (majorată sau redusă) în sistemul informațional al instituției, reflectarea noilor factori semnificativi care recurg din faptele constatate.

#### Rezultatele monitorizării bunului imobil ipotecat În mare parte pozitive, dar cu Negative-constatări grave careva observații Deterioararea în masă a Valoarea de piață a obiectului Pozitive proprietății în urma exploatării Valoarea de piață este suficientă ipotecat minimal nu este suficientă incorecte/survenirii riscurilor pentru acoperirea datoriilor garantate Modificarea considerabilă a valorii pentru acoperirea datoriei cu ipotecă. Nu sunt identificate Nu este reînoit contractul de proprietății ipotecate și a modificări esentiale ale valorii lichiditătii acesteia asigurare Lichiditatea proprietății este Au apărut careva modificări a Detetarea modificărilor confirmată obiectului ipotecat, este necesar considerabile asupra stării fizice a Proprietea este asigurată efectuarea înregistrărilor care obiectului ipotecat afectează valoarea obiectului Refuzul debitorului de a permite verificarea imobilului ipotecat. Informarea serviciului clientelă despre Rezultatele monitorizării sunt evidențiate necesitatea reasigurării bunului ipotecat, in portofoliul bunului ipotecat fără identificarea gajului suplimentar, monitorizarea. comentarii Modificarea valorilor în sistemul Băncii.

Figura 1. Rezultatele monitorizării bunului imobil ipotecat.

Sursa: elaborat de autor.

# Propuneri privind Perfecționarea Mecanismului de Monitorizare a Bunului Ipotecat, în Condițiile Republicii Moldova

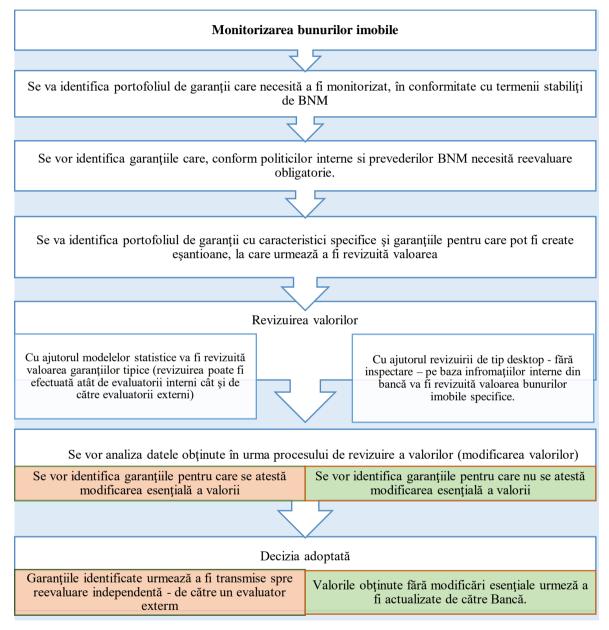
Precum s-a menționat anterior monitorizarea valorii bunurilor ipotecate permite diminuarea riscurilor creditare. Drept urmare, propunem algoritmul model al procesului de monitorizare care poate fi utilizat de instituțiile de creditare în scop de monitorizare a bunurilor imobile ce servesc drept garanții (Figura 2).

Indiferent de modalitatea de efectuare a monitorizării, concomitent pentru toate garanțiile analizate se va verifica dreptul de proprietate în Registrul Bunurilor Imobile și prezența Poliței de asigurare.

Modificarea admisibilă a valorii de piață va fi stabilită de fiece instituție individual (se recomandă acceptabilă modificarea de până la 20%).

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Întru executarea eficientă a procesului de monitorizare, instituțiile financiare trebuie să dispună de procese si politici bine reglementate, care să specifice abordările utilizate (spre exemplu: modele statistice, evaluare de tip desktop, evaluare doar cu vizită la exterior, evaluarea independentă a imobilului ș.a.). Instituțiile urmează să se asigure că metodologiile utilizate sunt prudente, bazate pe date suficiente și corespund tipului și valorii potențiale a garanției imobiliare, totodată ținând cont de corelarea acestora la riscul contractului de credit aferent. În plus, instituțiile trebuie să stabilească factori declanșatori specifici, *indicând expres momentul în care monitorizarea conduce la reevaluare*.



**Figura 2.** Algoritmul procesului de monitorizare a bunurilor imobile cuprinse în portofoliul de garantii al Băncii.

Sursa: elaborat de autor.

Diferența dintre evaluarea individuală și statistică, constă în faptul că în cadrul evaluării individuale proprietatea este obligatoriu inspectată, verificată starea acesteia și condițiile de exploatare, iar evaluarea statistică presupune doar calcule camerale, bunurile imobile fiind grupate în conformitate cu unele trăsături comune (populații statistice).

Sarcina primară a instituției de creditare care urmează a fi soluționată înainte de a executa reevaluari statistice constă în crearea unei baze de date/ întocmirea unui registru imobiliar cu diverse caracteristici ce permit o clasificare acceptabilă pentru reevaluare.

Prin urmare, revizuirea pe baza modelelor statistice va fi aplicată, pentru toate garanțiile din portofoliul instituției de credit, care pot constitui populații statistice.

Evaluările pe baza modelelor statistice au devenit mult mai frecvente, în prezent multe țări apelează la acest instrument pentru evaluarea bunurilor imobile rezidențiale și a terenurilor agricole. Acest fapt a fost determinat de dorința de a reduce costurile și de progresul în domeniul tehnologiilor informaționale.

Evaluările statistice sunt cunoscute în domeniul evaluării bunurilor imobile ca Modele automate de evaluare (AVM - Automated valuation models) [13, 14]. Conform EVS, EVIP 6 Modelele automate de evaluare, pot fi definite ca programe computerizate bazate pe statistici care utilizează informații despre obiecte de proprietate (de exemplu, tranzacții comparabile și caracteristici ale proprietății etc.) pentru a genera indicatori de costuri legate de proprietate sau valori recomandate. Astfel considerăm că recomandările din SEV [13] și din Standardul privind modelele automate de evaluare [14], pot servi drept bază pentru crearea modelelor de evaluare pe care instituțiile de creditare din RM ar putea să le utilizeze cu succes în procesul monitorizării valorilor portofoliului de garanții imobiliare. Totodată, instituțiile pot apela la evaluatorii independenți, care la fel pot utiliza modelele automate de evaluare, pentru estimarea valorilor portofoliului de garanții.

În Republica Moldova împiedică implementarea acestor modele:

- Lipsa transparenței privind datele despre preţurile de piaţă;
- Lipsa bazelor de date cu informații despre tranzacții ale proprietăților;
- Ofertele de pe piață puțin credibile;
- Lipsa organului competent format din evaluatori, statisticieni, programatori.

În cazul în care instituțiile de creditare vor utiliza în cadrul monitorizării modele statistice, "trebuie să se asigure că indicii utilizați și/sau modelele automatizate utilizate în revizuirea valorii garanțiilor imobiliare sunt suficient de detaliate și că metodologia este adecvată tipului de imobil care garantează un împrumut și de produsul de creditare și se bazează pe o serie suficientă de date c constatate în cadrul evaluărilor anterioare ale garanțiilor reale sau ale garanțiilor similare" [5, art.223].

O măsură potrivită ar fi completarea de către Banca Națională a Moldovei a Regulamentului nr. 111 din 24 mai 2018 cu privire la tratamentul riscului de credit. Regulamentul indică necesitatea reevaluării bunurilor în cazul în care instituția are informații cu privire la scăderea semnificativă a valorii bunurilor imobile în comparație cu nivelul general al prețurilor de pe piață. Iar, pentru creditele totale pe debitor care depășesc echivalentul a 3 milioane EUR sau 2% din fondurile proprii ale băncii, reevaluarea bunului imobil este indicată cel puțin o dată la fiecare trei ani. Reevaluarea urmează a fi efectuată de către un evaluator independent de procesul de luare a deciziei aferente creditului, care are calificarea, abilitățile și experiența necesară pentru a efectua o evaluare a bunurilor imobile. Criteriile înaintate evaluatorului sunt prevăzute în politicile interne ale băncii.

Se propune completarea Regulamentului cu prevederea pentru bunurile imobile care nu cad sub incidența acestor două condiții. Astfel, instituțiile de creditare pot actualiza valoarea garanției în funcție de rezultatul monitorizării, fie prin modele statistice, fie prin intermediul evaluărilor de tip desktop sau alte metode interne utilizate. Revizuirea valorilor poate fi efectuată

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inclusiv de evaluatorii interni deținători ai certificatului de calificare a evaluatorului bunurilor imobile.

Considerând specificul pieței de creditare din Republica Moldova se recomandă a modifica echivalentul de 3 milioane de euro cu 500.000 euro.

O altă problema cu care se confruntă băncile este condiționată de modalitatea practică de efectuare a reevaluărilor, problemă condiționată de refuzul debitorului de a suporta costurile pentru evaluarea independentă în cazul în care aceasta este necesară.

Pentru asigurarea îndeplinirii recomandărilor expuse în algoritmul monitorizării, este necesar *a include în contractele de credit o clauză suplimentară, care ar prevedea necesitatea și periodicitatea evaluării*.

Toate faptele relevate în timpul monitorizării vor fi reflectate în actele interne (notele/avizele întocmite de instituțiile creditare).

#### Concluzii

Reevaluarea portofoliului de garanții, poate deveni un mecanism eficient de stabilizare a sistemului de creditare. Însă, dacă această reevaluare/monitorizare a valorii este realizată fără acțiunile coordonate ale autorității de reglementare de stat (BNM), precum și fără a ține cont de o serie de caracteristici, în special cele legate de cerințele de capital necesare pentru acoperirea riscurilor, efectul acestei reevaluări, poate avea și consecințe negative. O încercare de a efectua reevaluarea pe baza metodelor tradiționale de analiză a pieței cu ajustare ulterioară a valorii portofoliului de creditare, poate afecta valoarea rezervelor necesare pentru bancă. Spre regret, problemele care apar pe parcursul reevaluării sunt cauzate nu doar de lipsa metodologiei necesare dar și de fragmentarea cadrului de reglementare existent.

Riscul reevaluării este asociat cu riscul creșterii împrumuturilor îndoielnice, fapt care necesită o analiză preliminară, sau un *inventar al portofoliului de garanții*. Există riscul ca, după o anume reevaluare capitalul băncii s-ar dovedi a fi negativ fiind necesară contribuție la rezervele obligatorii.

#### **Bibliografie**

- 1. Fomin D.E. Organizatsiya zalogovoy raboty v banke. In: Bankovskoye kreditovaniye, № 2, 2007
- 2. Fomin D.E. Upravleniye bankovskimi riskami pri kreditovanii pod zalog. Dis. k.e.n. 08.00.10. M.: 2008. 166 p.
- 3. Lavrushin O.I., Valentseva N.I. Bankovskiye riski: Uchebnoye posobiye: 2-ye izd. M.: Knorus, 2008. 232 ye.
- 4. Regulamentul cu privire la tratamentul riscului de credit pentru bănci potrivit abordării standardizate, nr.111 din 24 mai 2018 (în vigoare din 30.07.2018). Publicat în Monitorul Oficial al Republicii Moldova nr.183-194, art. 901 din 08.06.2018
- 5. Minimulin D.V., Radayev N.N. Formirovaniye zalogovoy politiki kommercheskogo banka In: Finansovyy menedzhment: teoriya i praktika Sbornik nauchnykh statey, 2007, p.152-158
- 6. Minimulin D.V. Zalogovyy risk v strukture bankovskogo kreditnogo riska i yego otsenka. In: «Den'gi i kredit», 2009, № 4
- 7. Brilon A.V., Minimulin D.V. Kontrol' zalogovogo imushchestva bankom: metodicheskiye aspekty . In: RISK: resursy, informatsiya, snabzheniye, konkurentsiya, 2009, № 2
- 8. Codul civil al Republicii Moldova nr. 1107-XV din 06.06.2002. Republicat în Monitorul Oficial nr.66-75 din 01.03.2019 art.132
- 9. Regulamentul nr. 575/2013 al Parlamentului European și al Consiliului din 26 iunie 2013 privind cerințele prudențiale pentru instituțiile de credit și societățile de investiții și de modificare a Regulamentului (UE) nr. 648/2012. Disponibil: https://eur-lex.europa.eu/legal-content/ro/TXT/?uri=celex:32013R0575;

- 10. Guidelines on loan origination and monitoring. EBA/GL/2020/06 din 29 Mai 2020. Disponibil: https://www.eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-loan-origination-and-monitoring
- 11. Mosolova O.V. Monitoring zaloga kak element zalogovogo mekhanizm. Metodicheskiy zhurnal- Bankovskoye kreditovaniye, 2013, № 2
- 12. Sokolinskaya N.E. Monitoring kontsentratsii bankovskikh riskov. In: Bankovskoye delo. − 2012. №10, p.20-27
- 13. European Valuation Standards -2016. Disponibil: https://tegova.org/
- 14. Standard on Automated Valuaton Models (AVMs). Revised Approved, July 2018, adopted by the Board of Directors of the International Association of Assessing Ofcers (IAAO);
- 15. Korkina V.S. Otsenka zalogovykh riskov v protsesse provedeniya zalogovoy ekspertizy, In: Rossiyskoye predprinimatel'stvo. 2013. № 18 (240).

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# RESPONSIBILITY CENTRE - MANAGERIAL ACCOUNTING INSTRUMENT

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**Abstract.** The survey of industrial companies indicates that the majority of managers use information about total costs or, at best, production costs, to make managerial decisions about the effectiveness of products or services. These indicators, being characteristic of financial accounting, are calculated with great approximation on the types of products or services. Marginal costs, as an object of managerial accounting, are very rarely used in the decision-making process, because the existing expense accounting systems of most companies are not able to produce such information. Traditional accounting systems accumulate and process financial information in accordance with financial accounting principles, without tracking and separating variable and fixed costs, which would allow a clearer determination of the direct costs incurred by specific products and services. Thus, the article presents some theoretical and practical aspects regarding the implementation of responsibility centre as tools for decentralizing responsibilities through the principles of managerial accounting, which allow the accumulation and management of costs and expenses on decision-making areas of company subdivisions.

**Key words:** costs, expenses, responsibility centres, managerial accounting.

Rezumat. Sondajul efectuat printre întreprinderile industriale indică faptul că, pentru luarea deciziilor manageriale cu privire la eficiența produselor sau serviciilor, marea majoritate a managerilor folosesc informația despre costurile totale sau, în cel mai bun caz, despre costurile de producție. Acești indicatori, fiind caracteristici contabilității financiare, sunt calculați cu mare aproximație pe tipurile de produse sau servicii. Costurile marginale, ca obiect de contabilitate managerială, sunt foarte rar utilizate în procesul de luare a deciziilor, deoarece sistemele de evidență a cheltuielilor existente la majoritatea întreprinderilor nu sunt capabile să producă așa tip de informație. Sistemele tradiționale de evidență contabilă acumulează și prelucrează informația financiară în acord cu principiile contabile financiare, fără a urmări și separa costurile variabile și cele fixe, ce ar permite să fie mai clar determinate costurile nemijlocit realizate de produse și servicii concrete. Astfel, în articol sunt prezentare unele aspecte teoretice și practice privind implementarea centrelor de responsabilitate în calitate de instrumente de descentralizare a responsabilităților prin principiile contabilității manageriale, care permit acumularea și gestionarea costurilor și a cheltuielilor pe arii decizionale ale subdiviziunilor întreprinderii.

**Cuvinte cheie:** costuri, cheltuieli, centre de responsabilitate, contabilitate managerială.

#### Introduction

One of the possibilities of modern cost and company management is the organization of the company's administration through the management of subdivisions based on the principles of managerial accounting. The opportunity of this system is based on the grouping of expenditures into controllable and uncontrollable. Controllable are the expenses that can be tracked by the manager of the subdivision. The uncontrollable ones do not depend on the activity of the subdivision manager. Being simple (as a category), in practice, it is difficult to divide the expenses according to this criterion. The expenses are influenced by the technological particularities, the organization of the production, the organizational structure. Two basic factors influence this division: managerial hierarchy and time. Expenditures can be uncontrollable on one level and vice versa - they can be controllable on another level.

The organizational structure of a company is a system of ranking the levels of responsibility within the company. For decentralization, companies usually classify their management segments in terms of several levels of responsibility. These levels of responsibility range from the lowest organizational level to the highest level of responsibility. In order to increase the share of controllable expenses, it is necessary to organize the reporting by segments, to organize an extension of the concept of responsibility management. By allocating costs and revenues to segments, top management is able to see where the responsibility lies for control purposes and is able to measure the performance of segment managers. By sharing the burden of decision-making at multiple levels of management, management is exempt from many day-to-day solutions to problems and has the ability to focus on long-term planning and coordinating efforts on the issues and tasks of the entire company. Allowing managers greater control over subdivisions and/or segments provides many advantages such as [1-3]:

- More efficient basis for measuring a manager's performance, because through decentralization managers have more freedom to use their skills and efforts. Top management will have more time to take strategic decisions;
- Divisional managers can take better decisions because they are better informed and better know the conditions of the subdivision;
- Decisions can be made faster because fewer people are responsible for making decisions:
- Managerial autonomy at the subdivision level is a motivating factor for divisional managers;
- It is an excellent training as these managers increase their skills in the organization.
   In the absence of such training, managers will not be prepared to operate in a growing managerial capacity.

# Some Aspects Regarding Responsibility Centre

The activities of companies can be structured in independent subdivisions regarding the budget formation and execution of cost control, called responsibility centres. The correct approach in classifying the expenses into controllable and uncontrollable is one of the success factors of the organization of the activity of the company based on responsibility centres. Center of responsibility is a term that indicates a part of an organization that has control over the cost, revenue, or use of investment.

When deciding how to assign responsibilities, the basic operations of the subdivision will take into account the possibilities for measuring and evaluating inputs and outputs. The

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organizational structure, the functional subdivision or the business unit will also be taken into account. Decisions on how to distribute responsibilities are closely linked to the organizational structure of the company. Due to the seemingly clear nature of the responsibility for profit, as an indicator of efficiency, very often in companies with structuring per business unit it is recommended to implement on profit centres without giving adequate weight to other considerations involved, such as measuring inputs and outputs. The principle of controllability is of great importance. This principle requires managers to be primarily responsible for the revenue, expenditure and/or investment under their control. For example, top managers may decide on all capital investments for a particular unit, even if those investments may not be a controllable measure for the unit. But not every unit can be an investment centre, because the manager cannot influence the investment decision. The principle of controllability is important for motivational purposes. In this case, managers could held responsible for factors they cannot influence. Therefore, it should be considered that specific strategic concerns do not affect the choice of the type of responsibility centre, as strategic concerns may also affect the measurement used in the responsibility centres [4].

The authors Alnoor Bhumani, et al. [4] are of the opinion that in order to achieve the goals an organization must coordinate the efforts of all its employees - from top executive through all levels of management, to every supervised worker. Coordinating the organisation's effort means assigning responsibility to managers who are accountable for their actions in the process of the planning and control human and physical resources. Management is in essence a human activity. Budgets exist not for their own sake, but to help managers achieve their own pursuits and thereby contribute to meeting those of the goals that are established by the company.

There are many approaches to defining responsibility area. According to researchers Ray H. Gariison and Eric W. Noreen [1] decentralized companies typically categorize their segments in terms of three levels of responsibility. Responsibility centre is a broad term, meaning all identified. These levels consist of cost centres, profit centres and investment centres. The level of responsibility ranks from lowest in a cost centre to highest in an investment centre. A segment that controls costs is known as the cost center. A distinctive feature of the cost center is that it has no control over revenue or investment use. Unlike a cost center, a profit center is any segment that has control over both cost and revenue. However, a profit center has no control over how investments are used. An investment center is any segment of an organization that has control over the cost, revenue, and use of investment. If a segment of an organization has control over investments in areas such as materials and equipment, receivables, inventories, and market entry, then it is called an investment center. Cost centers, profit centers, and investment centers are all identified as centers of responsibility.

Author Bowhill Bruce [5] defines the centre of responsibility as a unit in which a manager is responsible for its. The author determines these results in the form of cost, income, profit and investment centre. For functional activities such as marketing and accounting departments, the authors propose that a discretionary cost centre be organized. In this centre, it is more difficult to make a relationship between inputs and outputs. In such types of cost centre, the manager will be responsible for the centre's expenses against the budgeted ones.

Researcher Colin Drury [6] says that today's complex business environment makes it virtually impossible for most companies to be centrally controlled. It is simply not possible

for central management to have all the relevant information and time to determine and track details for the entire organization. A certain degree of decentralization is essential for all companies, even for the smallest companies. Organizations are decentralized by creating centers of responsibility. A center of responsibility can be defined as a unit of an organization, such as a department or subdivision in which a manager is responsible for the performance of the unit. It defines the centers of responsibility through a set of elements dependent on each other, which form an organized mechanism, having a high degree of autonomy in the use and optimization of available resources. A responsibility center is an organizational unit or part of a business for which a manager is responsible.

The responsibility centre can be equivalent to separate departments or sections within an organization. This mechanism allows the formation of internal links and interdependencies of the company, allowing the evaluation of the results of each subdivision and the determination of their contribution in the result of the company. Managerial accounting by responsibility centres allows the responsibility for the financial results to be assigned to the persons responsible for the activity of the corresponding subdivision. The creation of responsibility centres is a fundamental part of the management accounting control system.

The author views [6] on the following centres of responsibility are similar to those of previous researchers. Revenue centres are responsible centres where managers are mainly accountable only for financial outputs in the form of sales revenues. Profit centres are units whose managers are responsible for both revenues and costs. Such centres can be also called as business units. Investment centres are responsibility centres whose managers are responsible for both sales revenues and costs and, in addition have responsibility and authority to make working capital and capital investment decisions.

In other edition, Colin Drury [7] describes in details the types of responsibility centres. Cost or expense centres are responsibility centres whose managers are normally accountable for only those costs that are under their control. There are two types of cost centres: standard cost centre and discretionary cost centres. The main feature of standard cost centre is that output can be measured and the input required to produce each unit of output can be specified. Control is exercised by comparing the standard cost with the cost that was actually incurred. The difference between the actual and the standard cost is an overrun. Determining the effectiveness and efficiency of discretionary spending centers is the most difficult issue of managerial control. These centers are those in which production cannot be measured in financial terms and there are no clearly observable relationships between inputs and outputs. The managers of these centers are not responsible for sales and revenue, but they may affect revenue if the quality standards do not meet the requirements and the results do not meet expectations. The major issue with discretionary spending centers is the evaluation of spending efficiency. The control is reduced to the comparison of the actual expenses with those budgeted for each category of expenses. This ensures that the tasks assigned to each center have been successfully completed, but at the same time the financial results must be complemented by non-financial performance measures [6].

The German author Albrecht Dezle [7] mentions that the responsibility centres can be considered centres of decision, being led by a manager, because, in this context, the management is not an exclusive activity of the general management of the company. The responsibility centres can be located at all levels of the hierarchical pyramid of the company, having a certain degree of decentralization and delegation of decision-making power. The

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author identifies decision centers into 5 types: cost and discretionary expense centers, revenue, profit, and profitability centers.

Cost centers are specific to production subdivisions. The manager's goal is a minimum consumption of material or labor resources. The standard consumption, being established by the engineers, the objective of the cost center manager is to minimize the differences between the real and the standard costs. In such a cost center, its efficiency and effectiveness are measured in measurable indicators.

Discretionary expenditure centers are those subdivisions for which expenditure cannot be planned according to a concrete business plan. In these centers the result of the activity is not directly measurable. In these centers it is difficult to separate variable and structural expenditures. All expenses of such a center will be considered structural expenses. These centers are so named because their budget is determined by the experience of those in charge of those centers. Their objective is to provide good quality services under the conditions of an established budget. The activity of these centers cannot be measured directly. The budget of such a center is a budget for authorizing expenses. As the expenditure of these centers is "at the discretion" of their managers, the way to oversee the use of these budgets is to limit them to a specific number of responsibility centers within the functional services. It should be noted that effectiveness and efficiency are not measurable indicators for these centers.

The revenue center aims to achieve a predetermined production or sales volume in order to maximize it. In such a subdivision the manager has no authority over the price level, but must comply with the price set by the general management of the company. The managers of these centers do not have control over the distribution expenses, the expenses must be within the allocated budget in order to increase the level of sales.

The profit center is the center whose manager must manage the optimal correlation between sales and costs. This situation can be encountered in a production section or in a finished goods store, where the products are sold for a standard cost and where the manager is responsible for the profit from the activity performed. Profit is the margin calculated as the difference between the sales and the sum of the costs of the products sold.

The objective of such a center can be expressed in both absolute and relative values. The overall budget of a profit center can be divided into product budget, expense budget, and profit or margin budget.

In profitability centers the responsibility is focused on all the funds used. These centers are similar to the profit centers with a relatively efficient result, in which the manager has a profitability objective not only in terms of sales, but also of the capital used. There are two distinct levels of profitability centers [7]:

• the level responsible for the investment management selection and the objective detailed in the form of a report:

The centre activity results (or margin)

Fixed assets + working capital of the centre

• the level responsible for the current assets' management and the objectives expressed in the form:

The margin of the centre
The working capital of the centre

The French scientist Boulot J.L. et al. [8] consider that the company is obliged to adapt to the environment in which it evolves and the strategy that was elaborated for it, making

their organizational structure evolve as well. Thus, the following groups of responsibility centre are proposed at company level following types of centres: cost, revenue, profit and investment centre.

Standard cost centre that correspond to a department of the company, where in order to manufacture products or provide services, the actions of the company require a set of expenses with which to measure the efficiency and effectiveness of the company. In such a centre, the manager has no influence on the volume of sales, investments or profit, and their mission is to provide the required services (in terms of quantity, quality and cost) under conditions of minimizing costs. The performance of this centre will be measured by the size of the deviations that occurred between achievements and forecasts in the field of costs.

The most common discretionary expenditure centre is in the administrative departments. Here, the efficiency and effectiveness of the centre are quite difficult to measure, because the link between the level of expenses and the results obtained is difficult to establish; in other words, the costs are at the discretion of those in charge of these centre. Quite often, the budget is established following a decision of the head of the department which will be influenced by the objective they have to achieve (most often it consists in providing the best services to those interested), but it is known that, for the most part, their quality is difficult to appreciate. Having a real cost, lower than the forecasted one, does not necessarily mean a good performance, because it is known that, using fewer resources, the quality of the service will suffer.

Revenue centre. The most relevant example is that of a sales department, in which the manager will have the task of obtaining a certain level of sales without having control over sales prices or distribution costs. Tracking departmental performance is focused on sales. This goal can be broken down into sub-objectives, such as: the types of products that will be sold, the category of customers they are targeting, or the geographical area where they are sold. Tracking the sales structure according to these criteria will ultimately lead to tracking how sales are made. Specifically, the manager will focus on making better use of the resources allocated to them, so that the forecast sales structure will lead to a maximization of revenues.

Profit centre. These are departments whose manager has the ability to combine the best costs and revenues. There may be the following situations:

- 1. The manager of the centre is responsible for a certain net result obtained by the centre. This means that it can control sales prices, sales volume and the level of sales costs at the same time, and that it can have some control over manufacturing, administrative or research and development costs.
- 2. If the manager does not control all the expenses that are taken into account to obtain a certain net result, their performance will be appreciated with a certain approximation. These will be equal to:
- the value of the sales, less the expenses on which they can influence directly. In this case, the margin may be used as part of the contribution to cover other categories of expenses;
- the value of sales, less the amount of actual costs over which the manager has control and the standard costs over which the manager has no control. The margin now corresponds to a net result that tries to neutralize the elements outside the manager's responsibility.

Investment centre are those centres in which their managers are equally responsible for the fixed assets used. Within these centre, immediate profits are better combined with

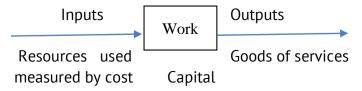
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investments that will increase future benefits. In such a centre, the person in charge has a wide autonomy, and the centre's objective will be to maximize the return on investment or the residual benefit. Compared to the managers of other responsibility centre, the head of the investment centre rarely has authority over the assets at their disposal. They have authority over current assets, less over treasury items (inventories, customer receivables, etc.) and partial authority over fixed assets (equipment, raw materials, etc.), and decisions on the latter are made by the general management of the company.

The Romanian authors C. Rusu and M. Voicu [9] define the responsibility (management) centre as a set of elements dependent on each other, which form an organized whole, having a high degree of autonomy in using its resources. The authors group the responsibility centre of the company into four groups: revenue, cost, profit and investment centre. In the revenue center the activity is evaluated by the obtained income. The reward of the employees of this center is made according to the income obtained compared to the planned one. Cost centers are subdivisions in which products or services are made based on the costs of which the effectiveness and efficiency of the center's activity is calculated. These centers may be represented by a department, a workshop or a functional service that uses indirect costs. If a job budget can be developed, it could be considered a cost center. The employee's motivation is based on the cost savings made by each executor.

Profit centers are subdivisions for which the profit obtained can be calculated. This center produces finished products, subassemblies, or services, whose technological process is organized according to the principle of the object of manufacture and which sell their products outside the company. At the level of these subunits of production, expenditure budgets are drawn up and the profit is calculated as the difference between the revenues obtained and the expenses incurred. The employee reward system is based on the fulfilment or non-achievement of the expected profit. In case of violations, their causes will be determined and actions will be planned to eliminate them. Investment centers are organizational subdivisions in which the ratio or difference between the income obtained from the sale of products or services and the investments made to obtain them can be highlighted. The advantages of the investment center refer to the facilitation of the control of the financial indicators and allow the evaluation of the contribution of each center to the realization of the company's profit. A responsibility center is a subdivision in which the manager is responsible for all activities. Thus, a company is composed of several centers of responsibility. These centers form a formal hierarchy of subdivisions. At the lowest level are the sectional centers and other small organizational subunits. Responsibility units that are consisted up of several such smaller units are higher in the hierarchy. From the point of view of senior management and the board of directors, the whole company is a center of superior responsibility consisting of several business units as centers [10].

Figure 1 provides a diagram illustrating the inputs and outputs of a responsibility centre and how responsibility is correlated with the input and output elements to reflect the responsibilities of the manager leading the subdivision.



**Figure 1.** Inputs and outputs of a responsibility centre [10].

A responsibility center is formed to meet certain objectives. The senior management team decides on concrete strategies to achieve these goals. The objectives of the responsibility centers help to implement these strategies. The result of the company is made up of the sum of the results of the responsibility centers. If each responsibility center achieves the goals of the center, the goals of the company will be achieved. The responsibility centers having inputs of materials, labor and services, using the machinery and equipment of the subdivision perform their specific function of transforming the inputs into outputs in the format of goods or services. In production - outputs are goods, in functional units such as human resources, transport, engineering, accounting and administration - outputs are services. Products made in one center can be sent to another responsibility center as inputs, or to the external market as a finished product or service. The company's revenue is the amount earned from the provision of these results by each responsibility center [11].

In another source developed by group of researchers Anthony A. et al. [12] can be finding the following descriptions of the responsibility centres. Responsibility centre is an organization unit which a manager is held accountable. Responsibility centre is like a small business, and its manager is asked to run that small business to achieve the objectives of the larger organisation. The manager and supervisor establish goals for the responsibility centre. Goals provide employees with focus and should therefore be specific and measurable. They also should promote both the long-term interests of the larger organisation and the coordination of each responsibility centre's activities with the efforts of all the others. In general, controlling the activities of responsibility centres requires measuring the non-financial elements of performance, such as quality, that create financial results in the long run. The managers must always be careful to use financial results as measures of performance and rely on nonfinancial results to identify the causes of the financial results.

Table 1

| Respo | onsibility | Centre | Summary |   |
|-------|------------|--------|---------|---|
|       |            |        |         | 7 |

|   | Type of Responsibility Centre                           |   |   |   |  |
|---|---|---|---|---|--|
| Factors                                   | Cost centre   | Revenue Centre  | Profit Centre   | Investment<br>Centre  |  |
| Controlled by centre management           | Costs   | Revenues  | Costs, revenues   | Costs, revenues and significant control over investment                 |  |
| Not controlled<br>by centre<br>management | Revenues, investments in inventory and fixed assets     | Costs,<br>investment in<br>inventory and<br>fixed assets    | Investment in inventory and fixed assets                              |   |  |
| Measured by<br>the accounting<br>system   | Cost relative to<br>a budget                            | Revenue<br>relative to a<br>budget                          | Profit relative<br>to a budget  | Return on<br>investment<br>relative to a<br>budget                      |  |
| Measured by<br>the accounting<br>system   | Performance on critical success factors other than cost | Performance on critical success factors other than revenues | Performance<br>on critical<br>success<br>factors other<br>than profit | Performance on critical success factors other than return on investment |  |

Source: Developed by author based on [12].

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Table 2

Authors Kenneth A. et al. [13] redefine the meaning of the centre of responsibility by renaming it the centre of financial responsibility, a feature of which is described in Table 2.

Summary characteristics of financial responsibility centre Selected financial statement line **Profit** Investment Revenue Cost centre items centre centre centre Income statement Revenue + + Cost of goods sold + + + Gross margin Advertising and promotion + Research and development + + + Profit before tax + + Income tax Profit after tax + + **Balance sheet** Accounts receivable + Inventory Fixed assets + Accounts payable +

Source: Developed by author based on [13].

#### **Characteristics of Responsibility Centre**

As a result of those sources analysed, the following definition is proposed which corresponds more broadly to the notion of responsibility centre. The responsibility centre is a subsystem of the company, which is a unitary whole characterized by its complex structure of links with the environment, represented by certain inputs and outputs, has objectives to achieve and strictly individualized rules of operation, aimed at transforming inputs into outputs specific to the given subsystem and which fully meets the customer's requirements [14].

Any responsibility centre, regardless of size, object of activity and form of organization involves:

- taking over some economic values from the environment;
- transforming the values taken over into larger ones;
- transmitting the values thus transformed to the economic environment.

The responsibility centre can be seen as a system, but also as a subsystem of the company with its own inputs, outputs and self-regulation mechanism. In order to evaluate the performance, there is a need to clearly define the areas of managerial responsibility areas of activity that are under the supervision of different managers, called above responsibility centres.

Based on the personal consulting practice in the implementation of cost systems based on responsibility centre in industrial companies in the Republic of Moldova, could be made the conclusion that the most applicable are the following types of responsibility centres [15]:

- cost (expenditure) centres;
- revenue centres;

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- profit centre;
- · investment centre.

In cost centre, the manager is responsible for costs and expenses. A cost centre can be relatively small, for example a subsection with a small number of staff, busy carrying out a technological phase of manufacturing the finished product or a specialized flow. Also, as a cost centre there can be a section with a complete production process: from the entry of the raw material to the exit of a finished product or a group of products. A company can be organized as a cost centre, if the responsibility for sales is assigned to another company specialized in sales. Some high cost centre may consist of several low-cost centre. Cost centre can be both operational and functional [15].

In the revenue centre the manager is responsible for revenue. Revenue centre aim to achieve a predetermined indicator of production and sales. Such centre may be organized on the basis of a subdivision which has the right to market the result of the activity. Many practitioners treat these centres more theoretically because it is economically pointless to control revenue without comparing it to spending.

The profit centre combines these performances, because the manager of such a centre will be responsible for both indicators: expenses (costs) and income. Other resultant indicators can also be used in such centre, such as: contribution margin, net or divisional profit. Profit centre can be natural or artificial. The natural profit centre sells the result of the activity abroad, the artificial one transmits the (semi-finished, finished) products to other subdivisions of the company to be finished or sold. The transfer price is called the transfer price. As a result of profit centre can be both products and services.

The manager of the investment centre has several directions of control and responsibility: expenses, income and investments. Profits and return on investment can also be an indicator of performance. This concept is quite popular because the manager is often treated as a manager of a business unit or an autonomous subdivision.

Table 3 shows the synthesis of different types of responsibility centre, with the presentation of examples of responsibility centre, the characteristics of the objectives and responsibilities for each type of centre.

The characteristics of the responsibility centre are the following:

- it is conducted by a person in charge;
- performs one or more tasks materialized in quantitative and qualitative objectives;
- has a set of resources necessary to achieve the set objectives;
- has relative autonomy within the resource budget.

Table 3

Synthesis of different types of responsibility centre

| Centre type | Examples   | Responsibility   | Objectives                     |
|-------------|--|--|--------------------------------|
| Cost centre | Subdivisions, sections and production flows, administrative subdivisions | Carrying out production programs. Minimizing deviations between the standard level of consumption and the actual one | Production quantity objectives |

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|                      |  |   | Continuation Table 3                            |
|----------------------|--|---|---|
| Revenue<br>centre    | Sales subdivisions                     | Adhering to the objective of the sales indicator or its maximization.               | Income increase<br>objectives                   |
|                      |  | Incorporating in the budget of expenses and minimizing deviations.                  |   |
| Profit<br>centre     | Production and commercial subdivisions | Maximizing the result<br>through the best<br>correlation between costs<br>and sales | Profit-raising<br>objectives                    |
| Investment<br>centre | Some production units                  | Maximizing the return on investment   | Objectives to increase the return on investment |

Source: Developed by the author.

The selection of the types of responsibility centre, their structure and size, the activities included in the respective area, etc., depend on the specifics of the branch or sector, the operating characteristics and the decentralization policy at management level.

Using responsibility centre for cost and expense tracking brings a number of benefits to the company. Cost monitoring based on the responsibility centre will allow a clear presentation of the cost structure on the subdivisions and functions of the company. Thus, it will become possible to evaluate the contribution of each function of the company. The evaluation of the investment result for certain functions will allow to make the managerial decisions based on the effective data, will increase the awareness of the impact on the costs of any action undertaken by the management of the company. The new management system will introduce a system for allocating resources and tracking how to use them, by developing expenditure budgets specific to each responsibility centre.

The distribution of direct and indirect costs will make it possible to delimit the costs that do not depend implicitly on the production process from those that depend strictly on this process on each responsibility center or even on the product.

Tracking deviations from actual expenditures from planned levels will be real and will be a reliable basis for managerial decision-making. Such a cost management system will generate additional information for planning and controlling costs and expenses. The efficiency of recording costs and expenses will allow the collection of current information in a limited time and the taking of "Just in time" management decisions, without waiting until the end of the current month.

Establishing responsibility for the expenses incurred and identifying the contribution of each responsibility centre to the achievement of the company's results will allow individual motivation either by responsibility centre or by product unit. The elaboration of a standard system of rules will allow to highlight the responsibilities of each executor. Thus, the decentralization of responsibilities and the delegation of functions will make the company's management system more flexible, will reduce the number of administrative levels and will lead to a transparency of the system of responsibilities and decision-making. The burden of responsibilities by delegating them to the operational level will allow the management of

financial indicators by the operational managers. Thus, a direct operative link will be made between making and reporting expenses.

Before moving on to managing the company's activity by managerial responsibility centre, the degree of delegation desired to be achieved will be established, as this new approach will influence the future organizational structure of the company. The principles of organizing such a structure are self-organization and self-control.

The division of the company's activity into responsibility centre will take into account the following requirements:

- the division into responsibility centre must be based on the existing organization within the company and be updated only when the distribution of responsibilities needs to be changed;
- all areas of activity of the company must be included in the responsibility centre, without there being an overlap of the activities carried out in several responsibility centre;
- a responsibility centre can only be run by a person in charge.

Responsibility centre can be set up based on the following areas of activity:

- a production activity (execution of a product or service);
- a technological process (mechanical processing, assembly, finishing, etc.);
- a field of activity (design, sale, supply, etc.);
- auxiliary activities (repairs, energy production, etc.).

Regardless of the object of activity, the following functions will be performed within each responsibility centre:

- the own expenditure budget is drawn up;
- deviations from the projected budget are pursued;
- the causes of the deviations are sought;
- measures are taken to correct the deviations and to eliminate the causes that caused them.

# Methodological Aspects of Implementation of Responsibility Centres

The evolution of the Moldovan companies produced during the last years, more and more obvious, indicates the fact that the managerial activity must be oriented towards the client and towards the change. This makes it necessary to look for those management methods that ensure the development of the activity of the companies under conditions of competitiveness, which supposes, however, the development of some organizational actions, able to allow the easiest possible use of the modern management and organization methods and techniques.

From what has been presented so far, it results that a restructuring of the company's activity based on responsibility centre is an exclusive activity at the level of its general management, which will take into account the degree of delegation of authority it wishes to grant to responsibility centre. For the success of this action, the general management must consider the following rules:

- the division into responsibility centre must be based on the organizational chart existing in the company and be updated every time a change of authority takes place;
- all areas of activity of the same kind must be included in a responsibility centre, because no decision can be taken without being under the authority of a centre;

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- no decision can be made by a double authority, and it follows that the same activity cannot be carried out in several responsibility centre;
- if the same person cannot carry out activities in two responsibility centres, the same centre can only be run by one person in charge.

Structuring the company's activity into responsibility centre has become a priority in meeting customer requirements and obtaining a profitable business. If in the developed countries the management of the company based on the responsibility centre is very widespread, in the Republic of Moldova there is a resistance to this way of structuring the activity of the companies, due, especially, to the mindset of some company managers.

The methodology for implementing the responsibility centre in the company can be done in three stages [16]:

Stage I - the stage of preparation of the structure of the responsibility centre:

- 1.1. Defining the RC areas based on the organizational structure of the company
- 1.2. Knowledge of activities and areas that generate costs
- 1.3. Determining cost units.

Stage II - the stage of preparation of the informational base about responsibility centre:

- 2.1. Development and introduction of the cost tracking system by RC
- 2.2. Creating unit costs for products and services
- 2.3. Establishing the allocation criteria and calculating the absorption rates of indirect costs.

Stage III - the phase of using the information about costs, expenses, other financial indicators by the company's managers:

- 3.1. Defining responsibilities for activities and costs
- 3.2. Rationale for the decision-making process
- 3.3. Analysis and use of cost information for continuous improvement in subdivisions, functions of the company and in the company as a whole.

The practice of implementing responsibility centre in industrial companies is related to some essential requirements on which the efficiency and rationality of the proposed methodology depends, namely:

- the delimitation of the responsibility centre will be made in close connection with the possibility of dividing the expenses into controllable and uncontrollable;
- the places where the expenses are: generated, identified, measured and collected will be defined;
- possibilities for accurate recording of costs and expenses will be created;
- possibilities for simple and efficient cost measurement will be generated;
- the operational cost centre will be established in accordance with the production flow;
- the methods of tracking and allocating costs will be developed depending on the specialization form of the responsibility centre;
- costs will be recorded based on actual consumption and prices;
- standards will be developed, which correspond to the current technical, technological and organizational conditions of activity;
- costs will be allocated depending on budgets;

 only the periodic and systematic reporting of costs and deviations (planned / effective), the stimulation of the inclusion in the planned budgets will lead to a permanent improvement of the system.

#### **Conclusions**

The implementation of the responsibility centres, the separation of direct and indirect expenses will give the possibility to change the calculation of the cost per product, in order to obtain the real cost, to develop and update the cost and to move to a new model of company management. The identification of direct and indirect production costs also aims to generate a market-oriented contribution margin, will estimate the possibility to cover general production and administrative expenses.

The system of accounting and calculation of costs based on the responsibility centre form excellent conditions for the budgeting process within the limits of the same area of responsibility. To implement such a process, the "budgeting from scratch" method is usually used. This approach is conditioned by the fact that companies do not have certain rules, standards for budgeting both production and functional cost units.

In order to establish the benchmark information for budgeting, experience will be gained over a period on the basis of which consumption standards will be set for the calculation of costs and expenditures. The more experience you gain, the more responsibly the budgets on responsibility centre will be and the better they will be handled by managers.

#### References

- 1. Managerial Accounting. Ray H., Garrison, Eric W. Noreen. 14<sup>th</sup> Singapore: McGraw-Hill Create.
- 2. Manual for Responsibility Centres. Transfer Pricing Association. Technical Information, TPA Global https://www.oecd.org/tax/transfer-pricing/42189238.pdf
- Advanced management accounting, CH5 Responsibility centres. Practice test Academy. centreshttps://www.practicetestsacademy.com/media/attachments/2018/12/15/p2\_ch5\_responsibility\_centres.pdf
- 4. Management and cost accounting. Alnoor Bhumani, Charles T. Horinghen, Srikant M. Datar, George Foster. 4<sup>th</sup> edition, Prentice Hall.
- 5. Bowhill B. Business Planning and Control. Integrating Accounting, Strategy and People. John Wiley&Sons, Ltd, 2008.
- 6. Cost and management accounting. Colin Drury, 10 edition, Cengage, 2017.
- 7. Controller Praxis, Management Service Verlag. Albrecht Dezhle Worthsee, 1971.
- 8. Analyse et Contrôle des Coûts Boulot J.L., Cretal J.P., Jolivet J., Koskas S. Publi-Union Editions, 1995.
- 9. Panaite N. (Coordonator), Rusu C., Voicu M. Managementul pe baza centrelor de responsabilitate. București: Editura Economică, 2001.
- 10. Management Accounting. Anthony A.Atkinson, Robert S. Kaplan, Ella Mae Matsumura, S.Mark Young, Pearson.My Accounting Lab 6th edition.
- 11. Contabilitatea costurilor, o abordare managerială. Charles t. Horngren, Srikant M.Datar, George Foster. Ediția a XI-a, Editura ARC, 2006 [p.215].
- 12. Management Control system. Accounting. Robert N. Anthony, Vijay Govindarajan, Frank G.H.Hartmann, Kalle Kraus, Goran Nilsson, European Edition, McGraw Hill Education, Higher education, 2014.
- 13. Management control system. Performance Measurement, Evaluation and Incentives. Kenneth A. Merchant, Wim A. Van der Stede. 3rd edition. Prentice Hall.
- 14. Bugaian Larisa. Managementul costurilor și contabilitatea managerială, Chișinău, Bons Office, 2003, 152 p, ISBN 9975-928-45-5.
- 15. Bugaian L. Managementul strategic al costurilor, Chişinău: CEP USM, 2007,271 p.,ISBN 978-9975-70-169-3
- 16. Bugaian L. Etapele de organizare a managementului întreprinderii bazat pe centre de responsabilitate, Buletinul Științific al Universității de Stat "Bogdan Petriceicu Hașdeu" nr. 2(4)/2010.

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# CHALLENGES OF THE IMPLEMENTATION OF THE UNITED NATIONS CONVENTION ARTICLE 27 REGARDING WORK AND EMPLOYMENT RIGHTS OF PERSONS WITH DISABILITIES IN RURAL SOUTH AFRICAN SETTING

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**Abstract.** It is a challenge to implement the work and employment policies for Persons with Disability (PWDs). This study explored challenges regarding implementing the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in a rural South Africa setting. Participants were seven persons with disabilities (female =four, male= three, age range = eitghteen to fifty five years). The researchers used a semi-structured personal interviews to get challenges regarding implementing employment of PWDs. Findings from the thematic analysis suggest language barriers, perceptions and attitudes towards disability and reasonable accommodation. The participants reported challenges related to reasonable accommodation, access to built environment barriers, assistive devices, and workplace adaptation. These findings have implications for the employers and the working conditions of PWDs. The researchers put a few recommendations at the administrative level forward to improve the PWDs challenges.

**Keywords:** Challenges, Convention on the Rights of Persons with Disabilities (CRPD), Implementation, South Africa.

Rezumat. Este o provocare să implementăm politicile de muncă și ocupare a forței de muncă pentru persoanele cu dizabilități (PWD). Acest studiu a explorat provocările privind implementarea Convenției Națiunilor Unite pentru drepturile persoanelor cu dizabilități (CRPD) într-un cadru rural din Africa de Sud. Au fost intervievate șapte persoane cu dizabilități (4 femei, 3 bărbați, interval de vârstă - optsprezece până la cincizeci și cinci de ani). Cercetătorii au folosit interviuri personale semistructurate pentru a obține provocări în ceea ce privește implementarea angajării persoanelor cu handicap. Rezultatele analizei tematice sugerează bariere lingvistice, percepții și atitudini față de dizabilități și acomodare rezonabilă. Participanții au raportat provocări legate de acomodarea rezonabilă, accesul la barierele din mediul construit, dispozitivele de asistență și adaptarea la locul de muncă. Aceste constatări au implicații asupra angajatorilor și condițiilor de muncă ale persoanelor cu handicap. Cercetătorii au propus câteva recomandări la nivel administrativ pentru a îmbunătăți provocările persoanelor cu handicap.

**Cuvinte-cheie:** provocări, Convenția privind drepturile persoanelor cu dizabilități (CRPD), implementare, Africa de Sud.

#### Introduction

South Africa was among the one hundred and fifty-five countries that signed the United Nations Committee on the [1]. The human rights underscore that Persons with Disability (PWDs) must fully enjoy all rights [1]. South Africa ratified both the CRPD and the optional protocol in 2008 [1]. The Articles address: (a) physical well-being; (b) access and privacy; (c) work employment; (d) autonomy, independence, and choice; accessibility, and participation; (e) social inclusion; (f) emotional well-being; and (g) personal development [2]. Notwithstanding the ratifying the CRPD, there are issues regarding domestic laws to align with the convention [1].

The legislation condemns discrimination against any person because of disability, language and culture [3, 4] share a new policy environment in South Africa that creates unique opportunities regarding the needs of PWDs. Policies are introduced to prevent barriers to employment for PWDs. [5] p. 2 states that "reinforce rather than undermine the traditional assumption that workers with disabilities are not equal to those without disabilities: the very opposite of what is needed." Other obvious changes need to happen when PWDs are employed.

The UN General Assembly adopted the CRPD on 13 August 2006 to encourage and protect the rights of PWDs [6] and there was no clear framework, which was enforced on 03 May 2008 [6]. Thus, this is the first treaty- CRPD to protect and promote the rights of about 15% of the global PWDs [7, 8] contend the CRPD produces a new vision for PWDs. Although the policies are all-inclusive, the implementation is problematic [9].

Implementing CRPD is augmented by negative attitudes concerning PWDs [10]. These negative attitudes begin early in life. For example, in Madrid, high school learners' had mixed emotions regarding similar sports opportunities [11]. In South Africa, negative attitudes towards PWDs been highlighted [12]. The employment conditions should meet a conducive environment, access to all facilities, reasonable accommodation, and promotion opportunities [13]. These standards place a lot of pressure on countries to comply. [14] highlight the negative right where some aspects are ignored and the positive where all are addressed to meet PWDs' needs at the workplace. For example, Turkey uses the negative right approach to the work and employment of PWDs [15]. In Spain, [16] contend that women with PWDs received services as low as 38.4% even in prisons. However, this low number may be common in other parts of the world, suggesting that PWDs have challenges in the affordances of their rights. Currently, it is not clear what challenges, which are also not well researched, South African PWDs face regarding the implementations of Article 27.

This study used the strategic implementation theoretical framework [17] to interpret the challenges of PWDs regarding the implementation of Article 27. The theory emphasises the strategies used to implement the Act. The strategies deal with what will change when an Act is implemented. During the implantations, there are two schools of thought: 1) the top-down ([18] versus the bottom-up [19], and 2) the macro-level [20] versus micro-level [21]. The Top-down relates to top management who enforce the Act, while the bottom-up refers to the grassroots (PWDs) who experience the Act implementation. The management looks at the macro-level and pays little attention to the micro-level. The bottom-up is concerned with the discrete issues which are at the micro-level. The macro-level stances do not extend their

concepts to the satisfaction of those at the micro-level [17]. To date, a knowledge gap exists from a micro-level perspective regarding the implementation of Article 27 of the CRPD. The researchers used the strategic implementation theory from this backdrop, focusing on micro-level perspectives to contribute to the gap. Therefore, the researchers explored the challenges of implementing Article 27 of the CRPD from PWDs in rural South Africa.

# **Goal of the Study**

The study aimed to explore challenges regarding implementing work and employment Article 27 of the United Nations Convention on the Rights from the PWDs perspectives in a South Africa rural setting. The findings of this study might help the government and private institutions speed up implementing CRPD, focusing on the needs of PWDs. South Africa.

## Methods

# **Participants and Setting**

The participants from the rural area in Vhembe District composed seven (female = four, male = three) purposively selected because they had a form of physical disability. All participants were Tshivenda speaking, aged between eitghteen to fifty five.

# **Procedure of Data Collection**

The first author devised three open-ended questions. The questions asked for the different aspects of work and employment concerning UN article 27. The questions were: 1) What challenges do you have to access work and employment? 2) Why do you think these challenges exist? and 3) Do you know the policy regarding work and employment for PWDs? For Face validity, which refers to two university experts, checked the tool's appropriateness, sensibility, and relevance. Unfortunately, there was no pilot study because the researchers did not find candidates in similar situations. However, the authors are confident that the data collected with a valid instrument is credible.

Data were collected using personal interview [22] because they present the researcher with experiences, knowledge, thoughts and feelings. Interviews were conducted in the participants' homes within one hour, with each participant following [23] style, where participants (PWDs) narrated [24] their challenges. The first author, however, interjected with a few probe questions to clarify what they meant. The interviews lasted between 50 and 60 minutes. The data were audio recorded, transcribed verbatim, and translated from Tshivenda into the English language. To find out the translation was done well, the transcripts were back-translated into Tshivenda [25]. Also, the participants accepted the invitation to take part in the study and signed the consented form. Therefore, participation was voluntary, and anyone could withdraw from the study without penalty.

# **Data Analysis**

The thematic analysis approach was utilised to themes from the interview data [26]. The author re-read the themes to find out they relate to the title. The researchers grouped similar themes into one theme. Researchers resolved differences regarding themes through discussions and reached a consensus. Pseudonyms (A-J), for instance, PA represented participant A, and PJ, participant J. were used to ensure anonymity.

# **Findings and Discussion**

The findings show that there are challenges in implementation the CRPD in the country. These challenges emanate from some people not being aware of Article 27. The

language used was complex and hard to understand for ordinary people in South Africa. The attitudes towards disabled people, which have not changed, impeded the implementation of Article 27, and also there are indefinite statements like "reasonable accommodation", which can be misinterpreted by both the employer and the disabled persons. Below, we present three themes and the verbatim statements from participants challenges. They are presented in three themes from the data analysis: language barriers, perceptions and attitudes towards disability, and reasonable accommodation. Thereafter, brief discussion and conclusion will be presented.

# **Theme: 1 Language Barriers**

Participants reported they got frustrated from experiencing language barriers to read the CRPD written in English, not their mother tongue. They highlighted the extract below showing evidence of this claim:

My highest qualification is standard five. I can only read and write in my mother tongue; I have to get somebody to read and interpret my mother's language in English. This government is not thinking of illiterate like me (PE, female, fifty years old).

I heard about this policy on the radio one day; I do not even copy this policy. How do I advocate for my rights if I do not know what is in the policy? This government always forgets about rural areas, and the government is not committed. (PD, female, fourty eight years old).

It frustrates me. I have a hard copy of the policy: I struggle to understand the policy because English is not my first language. My child does sometimes read and translate for me, but she struggles to translate this big English. Sometimes. I feel as though I am stupid since I am a beneficiary of this policy, but I do not know what it talks about in my language. Sometimes I feel useless and know what it talks about (PF, female, fifty years old).

In the CRPD, the English language was cited as a challenge, and also, there was no interpreted version of the participants' mother tongue. This challenge forced participants to look for other people to interpret the policy, as shown by participant PE and PD. Participant PD stated he heard on the radio about the CRPD and had no clear understanding. This challenge has salient issues like wishing to study the policy, but those who know the language could not be available. It is no wonder participant PF expressed pity for not being able to read and understand the policy. This observation implies that the employers did not consider such discrete challenges. For instance, the challenge was to update PWDs with the CRPD policy. They operated at a micro-level and neglected the micro-level where the PWDs are affected. At the same time, the employers violated part of the CRPD convention regarding communication to the PWDs on their rights [27]. This observation agrees with the Strategic Implementation Theory, which deals with macro-level stances and neglects the micro-level [17]. Also, the findings agree with CRPD, which contends a proactive approach in dealing with PWDs disadvantages and barriers so that they achieve equal rights like other people with no disability [28]. Proactive may imply changing paradigm to move beyond micro-level and topdown to micro-level and incorporate the bottom-up approach to address the needs of PWDs.

# Theme 2: Perceptions and Attitudes Towards Disability

The participants reported many negative attitudes they encountered from employers. PWDs were perceived to be less valuable for employment. For instance, some participants made the following observation:

I think employers should change their negative attitudes towards disability as it can happen to anyone, and they must realise that persons with disabilities have enormous potential. To be

employed is not a favour: I have matric qualification and experiences (PA, male fifty two years old).

This government is just writing policies on 2% employment of people with disabilities; and no implementation because disabled people still experience discrimination from employers. We do share these experiences with my friends who are disabled. Why do we have these good policies in place if the government is not encouraging employers to comply? I have a right to be employed, too (PE, female, fifty years old).

I was employed for twelve months' contract doing filling work in my local municipality. Towards the end of the contract, I approached my supervisor for a permanent position. He said to me. "Why demand a permanent position? Be grateful for this contract since you have a disability." After twelve months, I depended on my disability grant only, which is not enough for my family and me. I have three children to take care of, and without a job, I feel it. I mean, pulling things together is hard (PD, female, fourtyeight years old).

The results show negative attitudes; a case in point is the comments of participants PA and PD, who were both told that they were employed in favour and not on their ability. These sentiments reiterated the need for disability sensitisation: workshops convey a good understanding of the needs of PWDs and their rights in line with CRPD. Our interpretation of the results agrees with [29] in India contend the negative attitudes towards PWDs humpers the implementation of CRDP at the workplaces. The exact content of the right to work depends on the underlying legal document for an individual to pursue a chosen occupation without discrimination [30]. The only way out is to change the social, cultural, and political barriers to labour [31] and society needs to address these barriers for the good of all members.

# Theme 3: Reasonable Accommodation

All participants strongly emphasised the need for reasonable accommodation such as access to the built environment barriers, assistive devices and workplace adaptation. For example, they observed:

I was just over the moon when I received a call for a job interview. When I arrived at the venue, which was identified for the interview, I could not get into the building because the building was not accessible. The boardroom was on the second floor, and I am using two crutches; the building does not have a lift. HR personnel was called by security to come and help. The venue was changed immediately to the nearest office building. The HR official's apologies for the inconvenience "Sorry! Sorry! Eish, we are very sorry we forgot. This building is too old. "We did not know...... we apologies" (PA, male, fifty two years old).

It is painful, a new building which is not accessible for persons with disabilities..... I have to use the next-door bathroom because in the building I am currently working in, the bathroom cannot accommodate my wheelchair. When I was appointed, I was told by my employer that "bathroom is not an issue, we will sort it with the landlord". I was told by my employer that "You appreciate that you have the job as long as we have the wheelchair ramp which accommodates you to get in and out, we are renting in this building, and we inform the landlord about altering the bathroom". I need a job. I have to be patient; I have no choice, but it is difficult for me (PD, female, fourty eight years old).

Some participants reported the challenge of accessing assistive devices to perform their duties independently. They highlighted the following are statements in interviews:

I cannot cope without using assistive. I am using one crunch and partially sighted. It took me eleven months to work because there was an assistive device to perform my duty. A computer

and a printer in the office they allocated meted me, but I could not use them because of my disability. "Hey..... I did not know that your assistive devices are very expensive" (My supervisor). I was told that the department does not have a budget for my brail printer and my computer with speech (JAWS), interfaced speech synthesisers for the visually impaired. I have to wait for the new financial year for the department to buy assistive devices (PG, male, fourty nine years old).

I feel embarrassed when I have to request assistant from my colleagues at work; many requests have been submitted to the office of new executive management to erect the ramp on the door entrance. It is frustrating because the previous executive management was promising, now I have to start from scratch with the entire process. I deserve a decent life like everyone else in that company (PE, female, fiftyyears old).

Some participants noted the workplace was not accessible and was interpreted as discrimination against persons with disabilities when the request for adaption in their workplace was not universal design. For instance, some participants made the following observations:

It was difficult for me to be moved to another office. I wrote two letters to the facilities directorate for the allocation of the new office. The first letter responds I was told to motivate why I need another office. I was told to add more to my motivation in the second letter since it was convincing enough. They moved me to one of the director's office because my office was tiny and could not stretch my legs. Her office was enormous and with enough space for my movement. It was a serious fight for me to enter the office (PD, female, fourty eight years old).

I told them that the sink is too high for a wheelchair user; they do not care. It makes me dependent and further worsens my disability. To beg for help every time, even with simple things like fetching water, was a challenge. I was always told about the insufficient budget for the company, and sometimes I will keep quiet and be patient because I need a job to work for my family. I can do nothing because I cannot force them, and you know that getting another job as a disabled person is difficult (PG, male, fourty nine years old).

The results show that there is no commitment by employers to offer reasonable accommodation. For example, participant PA explained he was given an office at an old building because he could not access the modern building because of his disability. Although the Human resource officer apologised, it did not remove the negative feeling in the participant. This observation concurs with the statement of [32] "Among the yardsticks by which to measure a society's respect for human rights, to evaluate the level of its maturity and its generosity of spirit, it is by looking at the status that it accords to those members of society who are most vulnerable, disabled people, the senior citizens and its children." Thus, there was little regard for the needs of PWDs, which concurs with "top-down" or "bottom-up", the model used in management. The former likely miss more than half (greater than 50%) of the needs of the least fortunate of society, like the PWDs [20]. Conversely, the bottom-up approaches consider the consultation with the less fortunate to address their plight [33]. A similar approach has been adopted in China where Disabled Persons' Organizations (DPOs) suggestions are considered [34], and it has been hailed because it in agreement with the social model of CRPD ([35].

It helps understand the PWDs challenges from all spheres of life. Article 27 (i) encourages States to ensure PWDs are not discriminated against employment and should have reasonable accommodation. Accommodation should be accessible when PWDs use wheelchairs. The furniture should be flexible to accommodate PWDs in wheelchairs, and that they should be able to access restrooms and parking places. Participant PG, a male, fourty

nine years old, noted that while using the wheelchair, the disabled person could not access the computer. This study highlights the challenges PWDs encounter regarding the implementation of CRPD. The researchers would have looked at religious, traditional beliefs, and curriculum regarding the rights of the PWDs, but these were not the focus of the study and needed further study.

# Limitations of the Study and Suggestions for Further Research

This study was limited to exploring the challenges of implementing Article 27 of the UN on the Rights of PWDs at the workplace. Eight participants was a small sample. Again that sample was limited to Tshivenda language. Thus, it did not represent the population of PWDs in South Africa for generalisation [12]. Also, the findings may be different for participants who speak Xitsonga, English, or Afrikaans. Further studies are needed using a quantitative approach with a large sample.

#### **Conclusions**

The study on implementing United Nations Article 27 regarding the work and employment of PWDs shows that there are many subtle challenges, including language, peoples' perceptions and attitudes, and environmental issues. Also, it established a lack of commitment to implementing CRPD, which is an overarching obstacle to including PWDs within work and employment. While some PWDs had a basic understanding of CRDP, others were unaware of its existence. There were persistent attitudinal challenges within work and employment that stigmatised and excluded PWDs. Built Environments played a huge role in preventing PWD's accessing places of work. There is a need for a significant change from the use of top-down to bottom-up organisational strategy. Finally, there are salient human right issues that were not addressed, and they need further study using qualitative and quantitative approaches.

# **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

#### References

- 1. United Nations, (UN). (2016). Convention on the Rights of Persons with Disabilities. New York: United Nations.
- 2. Claes C., Vandenbusshe H., & Lombardi M. (2016). Human rights and quality of life domains: Identifying cross-cultural indicators. In R. L. Schalock & K. D. Keith (Eds.), Cross-cultural quality of life: Enhancing the lives of people with intellectual disability (pp. 167–174). Washington, DC: American Association on Intellectual and Developmental Disabilities.
- 3. Republic of South Africa. (1996). The Constitution of the Republic of South Africa. Pretoria: Government Publications.
- 4. Barnes C., & Sheldon A. (2010). Disability, Politics and Poverty in a Majority World [6] UN Enable, (2006), *Promoting the rights of persons with disabilities: Full participation and equality in social life and development*, United Nations, New York.
- 5. Barnes C. (2003). *Disability, the Organization of Work, and the Need for Change. GLADNET Collection.* Paper 322.Retrieved 5 October 2010 from: http://digitalcommons.ilr.cornell.edu/gladnetcollect/322.
- 6. UN Enable, (2006), *Promoting the rights of persons with disabilities: Full participation and equality in social life and development*, United Nations, New York.
- 7. World Health Organisation & World Bank, (2011). World Report on disability, WHO, Geneva. http://www.who.int/disabilities/world\_report/2011/report.pdf
- 8. Ngwena C., Grobelaar-du Plessis I., Combrick H. & Kamga S.D. (eds.), (2013), *African disability rights yearbook*, Pretoria University Law Press, Pretoria, pp. 375–385. https://journals.sagepub.com/doi/abs/10.1177/016934411303100405

- 9. Mpofu E, Peltzer K, & Bojuwoye O. (2011). Indigenous Healing practices in Sub-Saharan Africa In E Mpofu (Ed), Counselling People of African Ancestry (pp 294–310). Cambridge University Press.
- 10. Vilchinsky N., Werner S., Findler L. (2010). Gender and attitudes towards persons suing wheelchairs: A multidimensional perspective, *Rehabilitation Counselling Bulletin*, *53*, 163–174. https://link.springer.com/chapter/10.1007/978-981-13-5962-0\_3
- 11. Ocete C., Lamata C., Coterón J., Durán L. J., & Pérez-Tejero J. (2017). The perception of Secondary and Baccalaureate students towards the inclusion of classmates with disabilities in Physical Education. *Psychology, Society, & Education, 9*(2), pp. 299-310. doi 10.25115/psye.v9i2.846
- 12. Maart S., Eide A.H., Jelsma J., Loeb M.E. & Ka Toni M. (2007), 'Environmental barriers experienced by urban and rural disabled people in South Africa', *Disability & Society* 22(4), 357–369. https://doi.org/10.1080/09687590701337678
- 13. Fasciglione M. (2015). Article 27 of the CRPD and the Right of Inclusive Employment of People with Autism. In D. Fina & Fina & R. Cera (Eds.), *Protecting the Rights of People with Autism in the Fields of Education and Employment* (pp. 145-165). Rome: Springer International Publishing. https://www.springer.com/gp/book/9783319137902
- 14. Waddington L., Priestley M., & Yalcin B. (2017). "Equality of Opportunity in Employment? Disability Rights and Active Labour Market Policies." In Routledge Handbook of Disability Law and Human Rights, edited by Peter Blanck and Eilionoir, Flynn, 72–87. London: Routledge.
- 15. Yilmaz V. (2020). An examination of disability and employment policy in Turkey through the perspectives of disability non-governmental organisations and policy-makers, *Disability & Society*, 35:5, 760-782, DOI: 10.1080/09687599.2019.1649124.
- 16. Bedriñana K. G. A, González F. S., & Cantero F. G. (2021). Prison environment and the protection of the human rights of people with disabilities. Perspective from women. *Psychology, Society & Education*, *13* (2), 11-20. https://dx.doi.org/10.25115/psye.v13i2.3467
- 17. Mitchell D. (2019). "It all depends, but on what? Testing contingency in public strategic implementation." Public Performance & Management Review, 42, 783-807.
- 18. Howlett M. (2004). Beyond good and evil in policy implementation: Instrument mixes, implementation styles, and second generation theories of policy instrument choice. *Policy and Society* **23**:1–17.
- 19. Sabatier P. A. (1986). Top-down and bottom-up approaches to implementation research: A critical analysis and suggested synthesis. Journal of Public Policy 6:21–48. DOI: https://doi.org/10.1017/S0143814X00003846
- 20. Walker R. M. (2013). 'Strategic management and performance in public organizations: Findings from the Miles and Snow framework'. Public Administration Review, 73, 675-685. https://onlinelibrary.wiley.com/doi/10.1111/j.1540-6210.2010.02271
- 21. Whittington, R. (2017). Strategy as practice, process, and institution: Turning towards activity. *The Sage handbook of process organization studies*, 387-401.
- 22. Creswell J. W. 2013. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. London: Sage.
- 23. Bernard H. R. (2002) . *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Third edition. Walnut Creek: Altamira Press.
- 24. Neille J. (2020). The use of rights-based discourses in the narrative construction of identity by disabled adults in rural South Africa, *Disability & Society*, 35:8, 1227-1247, DOI: 10.1080/09687599.2019.1688645
- 25. Brislin Richard W. (1970). Back-translation for cross-cultural research. *Journal of Cross Cultural Psychology*, 1, 185-216. https://doi.org/10.1177/135910457000100301
- 26. Creswell J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approach* Thousand Oaks: SAGE Publications.
- 27. Ferreira R. & Sefotho M.M. (eds.). (2020). 'Understanding Education for the Visually Impaired', in Opening Eyes. (1), 1–414), Cape Town: AOSIS https://books.aosis.co.za/index.php /ob/catalog/view/179/212/3795-2
- 28. Global Rights, (2005), *Affirmative action: A global perspective*, Global Rights. Washington, DC: Partners for Justice Global Rights. Disability Policy in China." *Disability & Society*, 33 (1):132–7.
- 29. Gupta S., de Witte L.P., & Meershoek A. (2020). Dimensions of invisibility: insights into the daily realities of persons with disabilities living in rural communities in India, *Disability & Society*, DOI: 10.1080/09687599.2020.1788509
- 30. Collins H. (2017). "Is There a Human Right to Work?." *In* V. Mantouvalou (Ed.), *the Right to Work: Legal and Philosophical Perspectives* (pp.17–39). Portland: Hart Publishing. Doi.10.5040/9781474202077.ch-002

- 31. Blattner, C. E., (2020). Right to work or refusal to work: Disability rights at a crossroads, Disability & Society, DOI: 10.1080/09687599.2020.1788511
- 32. Mbeki, T., (1997), *O\_ce of the Deputy State President: Disability Desk 1997 Integrated National Disability Strategy Document*, viewed 10 January 2020, from http://www.gov.za/documents/download.php?
- 33. Hupe, P. L. (2013). Dimensions of discretion: Specifying the object of street-level bureaucracy research. Der Moderne Staat. *Zeitschrift für Public Policy, Recht und Management*, 6(2), 425–440.
- 34. Xintong, Z., & Chao., Z. (2018). "From Isolated Fence to Inclusive Society:The Transformational Disability Policy in China." *Disability & Society*, 33 (1):132–7. doi: 10.1080/09687599.2017.1375246.
- 35. Tang, Na, and Cao, Yu. (2018). "From Multiple Barriers to a Co-Prosperity Society: The Development of a Legal System for Disabled People in China." *Disability & Society*, 33(7):1170–4. doi:10.1080/09687599.2018.1471373.

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# WEAKNESSES OF THE PRE PROJECT SELLING SYSTEM IN THE SALE AND PURCHASE OF FLATS

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**Abstract.** The purpose of this research is to find out the causes and solutions in overcoming the lack of consumer legal protection in saling and purchasing flats in the pre project selling system. This is a normative legal research with a statutory approach and a conceptual approach, Case Approach, Comparative Approach. Analysis of legal materials is carried out using qualitative descriptive analysis techniques. This reseac find that the legal position of PPJB in pre project selling so far is still considered to provide less protection to consumers who buy flats. One of the factors causing the lack of protection of consumers in purchasing flats through PPJB in pre project selling is due to the lack of consumer understanding of the contents of the agreement in pre project selling. The government has tried to improve the process of selling and purchasing flats through pre-project selling. Development actors must meet the requirements, at least they must have certainty of space allocation, certainty of land rights, certainty of ownership status of flats, permits for flat construction and quarantees for the construction of flats from a quarantor institution.

**Keywords:** Legal Protection, Consumers, sale and purchase, Flats, Pre Project Selling.

Rezumat. Scopul acestei cercetări este de a afla cauzele și soluțiile pentru depășirea lipsei de protecție juridică a consumatorilor la vânzarea și achiziționarea de apartamente în sistemul de vânzare anteproiect. Aceasta este o cercetare juridică normativă cu abordare statutară și abordare conceptuală, abordare de caz, abordare comparativă. Materialele juridice sunt analizate, folosind tehnici de analiză descriptivă calitativă. În urma cercetării s-a constatat că poziția juridică a PPJB la vânzarea anteproiectului de până acum este încă considerată a oferi mai puțină protecție consumatorilor care cumpără apartamente. Unul dintre factorii ce cauzează lipsa de protecție a consumatorilor în achiziționarea de locuințe prin PPJB la vânzarea înainte de proiect se datorează lipsei de înțelegere de către consumatori a conținutului acordului la vânzarea înainte de proiect. Guvernul a încercat să îmbunătățească procesul de vânzare și cumpărare de apartamente prin vânzarea înainte de

proiect. Actorii de dezvoltare trebuie să îndeplinească unele cerințe, cel puțin trebuie să aibă certitudinea alocării spațiului, certitudinea drepturilor de teren, certitudinea statutului de proprietate a locuințelor, autorizații de construire a locuințelor și garanții pentru construcția de locuințe de la o instituție garant.

**Cuvinte-cheie:** protecție juridică, consumatori, vânzare și cumpărare, apartamente, vânzare preproiect.

#### Introduction

Agreements are important in terms of legal relations to maintain the security of transactions between two parties. Article 1457 of the Criminal Code defines a sale and purchase agreement as an agreement, where one party binds himself to hand over ownership rights to the goods to a second party while the second party is obliged to pay the price agreed in the agreement. The sale and purchase agreement is regulated in Article 1457 of the Civil Code in conjunction with Article 1458 of the Civil Code.

The Sale and Purchase Binding Agreement (PPJB) has the meaning of a preliminary agreement which contains promises from the parties containing provisions if the terms of sale and purchase have been fulfilled. This agreement is carried out because the conditions in the main agreement have not been fulfilled in this case is a sale and purchase agreement with the object of the agreement in the form of an apartment. These promises must be fulfilled by one of the parties or the parties before the main agreement is made. PPJB is an agreement from two parties to carry out their respective achievements in the future, namely the implementation of selling and purchasing before the Land Deed Making Officer (PPAT). PPJB can be made by the parties themselves or PPJB made before a Notary. The notary only acts to accommodate the wishes of the parties (buyers and sellers) and shows it in the deed and the subsequent process, namely the process of making a deed of sale and purchase that must be done before the PPAT. When two people make an agreement, they both intend to make a legal alliance between them. PPJB is a form of alliance with a timeline. PPJB is an agreement appointed and made from the concept of the Criminal Code which is an agreement of the parties on the rights and obligations made based on Article 1320 of the Civil Code and Article 1338 of the Civil Code so that it can provide legal certainty and legal protection for the parties who make it. Article 1338 paragraph (1) of the Civil Code states that all agreements made legally apply as law to those who make them.

Treaty law adheres to the principles of freedom of contract, the system is open and is a complementary law. The principle of freedom of contract gives each person the right to enter into an agreement with the terms and conditions agreed upon by both parties (developer and consumer of the apartment unit) with subjective and objective conditions as long as the legality of an agreement remains met. This means that everyone can enter into any agreement and the law of the agreement is a complementary law. Everyone can thus enter into any agreement and the law of the agreement is a complementary law, so anyone can make an agreement in other forms than those provided by the Civil Code.

The authorized employee in question is a Notary. PPJB made before a Notary, the PPJB deed automatically becomes an authentic deed. While PPJB made not before a public official (Notary), then the PPJB becomes a private deed. PPJB which is not made before a public official or a deed under new hands has power against third parties, among others, when affixed with a statement dated from a Notary or another official appointed by law as regulated

in Article 1874 of the Civil Code. Thus, the legal force of the PPJB deed of land rights made by or before a Notary is very strong, because the PPJB made before a Notary, then the deed has become a notarial deed so it is an authentic deed. As for PPJB made not in the presence of a Notary, it becomes a deed under hand whose proof is under an authentic deed, although in article 1875 of the Civil Code it has been mentioned that the deed under hand can have perfect proof as an authentic deed if the signature in the deed is recognized by the parties who signed it.

#### Research Methods

Normative juridical is the research method that used in this research, which means that the research method that describes the law is a written concept of statutory regulations (law in books) or considers the law as a rule that is made by humans as a good benchmark in carrying out life [1]. The approach used in answering the problem is to use a statutory approach and a conceptual approach, Case Approach, Comparative Approach. The statue approach is carried out by reviewing all laws and regulations related to the legal issues under study. The conceptual approach is an approach that studies the views and doctrines of doctrine in legal science to build legal arguments so that they can solve the problems they face. The case approach is to examine and analyze cases of default and unlawful acts committed by developers as a result of selling and purchasing agreements made between developers and consumers, causing losses, especially on the part of consumers. Comparative approach, namely by comparing the sale and purchase agreement of flats in Indonesia with the sale and purchase agreement of flats in other countries.

The legal materials used are primary, secondary, and tertiary legal materials. In this resarch, the literature study is a procedure for collecting legal materials. Analysis of legal materials is carried out using qualitative descriptive analysis techniques [2]. Based on the results of the analysis, then an interpretation or interpretation of the law is carried out through the help of methods or teachings on interpretation including Grammatical Interpretation, Systemic Interpretation, and Futuristic Interpretation. Furthermore, the research results are recorded systematically and consistently so that the materials obtained in this study can be written with critical, logical, and systematic management, so that later they can reveal a new norm from the results of a problem.

# **Results and Discussion**

# Consumers' Perspective on the Definition of PPJB in Pre Project Selling

Selling and purchasing activities for humans have become a part of daily activities to fulfill their daily needs. The business world recognizes that selling and purchasing is mainly carried out to sell production or buy raw materials and other materials that will be used in the planned production process, including selling and purchasing in the property sector. The need for housing that continues to grow is not proportional to the availability of land that is permanent, so the demand for land as a place for humans to build houses is decreasing. The limited availability of land is what gives rise to a thought to build a residence vertically. The results of production in the property sector can be in the form of housing, buildings or dwellings in the form of flats known as apartments, condominiums or flats both before the building is built and after the building has been built [3]. The strategy of selling flats (apartments) is one of the property marketing models in Indonesia. The wide variety of offers for flats and the increasing need for decent housing have received a positive and quite high

response from the community, along with the narrowness of land for housing, especially in big cities. Currently, flats or apartments have become a part of the lifestyle in addition to being a basic need. It is legally possible for a person to own a flat unit privately.

PPJB in pre project selling involves development actors (developers) and prospective buyers, where in PPJB it can secure the process of legal relations between the parties if it is made in real terms and fulfills the provisions regarding the legal terms of the agreement as regulated in Article 1320 of the Civil Code. The preparation of PPJB is the process of selling and purchasing in the sale of flats (apartments) on a pre project selling basis solely to ease the agreement desired by the parties. The terms set forth in the agreement must not burden both parties. Transactions held in the sale and purchase of flats (apartments), previously referred to the UURS of 2011. The form of the sale and purchase agreement for flats is with a pre project selling system, namely sales promotion carried out by the developer before the construction of the apartment is carried out so that the offered by the developer in the form of illustrations and designs.

Subekti states that an agreement is made when an event occurs where someone wants to promise to another person or where another person promises to do something, then with the willingness of a consumer who wants to buy an apartment through a PPJB pre project selling agreement before a notary with the intention that the amount of money that will later be issued in accordance with the agreement and will get an apartment in accordance with the rights [4]. The assumption that develops in the community regarding the making of an agreement is that an agreement must be made and or made in the form of a notarial deed so that the agreement is legally valid, even though the assumption is not entirely true [5].

The following are the legal terms of the agreement in accordance with Article 1320 of the Civil Code:

- There is an agreement
- Having skills
- The existence of the object of the agreement
- There is a lawful cause

Conditions number 3 and 4 are objective conditions that must be met, otherwise the agreement will automatically be void. If the agreement is executed based on Article 1320 of the Civil Code, where there is the ability of the consumer to make payments and the ability to procure complete flats along with the permits and documents of ownership, all things that are agreed by both the consumer and the developer become a commitment that is set forth as a sale and purchase binding agreement or referred to as PPJB.

The object of the agreement as stated in Article 1320 of the Civil Code is an object of economic value and the object must be clearly explained in the clause of the agreement, and the object of the agreement is an object that is traded according to the law. Related to the principle of consensus or agreement of the parties, things that can cause the agreement of the parties to be invalid are due to a defect of will. Based on Article 1321 of the Criminal Code, an agreement made by the parties becomes invalid if it can be proven that the agreement occurred due to a defect of will which could be in the form of oversight, coercion, or fraud.

A situation is said to have an element of error or misguidance (dwaling) while a person when making the agreement is influenced by views or effects that are not true. The errors regulated in Article 1322 of the Criminal Code include errors about the person (error in persona) and errors about the nature of the thing promised (effort in substantia). Related to

coercion (dwang) regulated in Article 1324-1327 of the Criminal Code, it is said to arise when a person is moved to close an agreement (give an agreement) under a threat that violates the law, in this case consists of 2 (two) things, namely:

- a. Something that is threatened is indeed against the law (such as murder, persecution, false reports);
- b. Something that is threatened does not violate the law, but the threat is intended to achieve something that cannot be the right of the perpetrator.

Meanwhile, what is meant by fraud (bedrog) as regulated in Article 1328 of the Criminal Code is a trick used by one party to cause the other party in the agreement to have signed the agreement, even though without the ruse, the other party would not have signed the agreement. concerned. The ruse in question must be substantial, for example, when the seller says that the flat/apartment offered is of premium quality, when in fact the materials used are even far below quality standards, then the ruse is considered substantial and can be categorized as fraud so that the agreement can be canceled.

An agreement must have an object and clearly the object of the agreement, where the object of sale and purchase can be a building and/or land that will be used as a residence in the form of a house/apartment. Sales and purchases made before the construction of the apartment were made or through the pre project selling system carried out with PPJB which contained the authorities and obligations of the parties. Based on existing laws and regulations, the application of marketing and transactions for flats (apartments) is basically allowed to be carried out before the construction is completed which is carried out by the PPJB process and then after the building is completed, it is continued with the Sale and Purchase Deed (AJB) process [6]. Mostly in practice in the field, the process of selling and purchasing flats (apartments) is carried out with a pre project selling system, namely selling and purchasing before the building is built. Sales in this way are actually intended as a market test of the products being marketed, namely apartment units. It is hoped that in sales through pre-project selling, not a few will order or make purchases before the apartment unit is completed.

People who are interested in buying flats with an alternating pre-project system, must place an order in advance and for consumers who have ordered, they will be given a "letter of order" (booking form) as an initial document that will be received by consumers who intend to buy housing units flat (apartment). The consumer must not ignore the things that are the consumer's obligations after signing the Order Letter, that is, they must always remember that the "Letter of Order" is an initial transaction, because after signing the order, the next step is the consumer must pay a booking fee (order fee), along with a down payment.

Developers of flats must provide important information clearly and accurately to buyers regarding the products offered, such as information on types of land rights, physical condition of buildings and selling prices [7]. Apart from selling and purchasing, ownership or transfer of rights can occur due to exchange and grants, or rent [8]. In an increasingly open era, prospective buyers of flats must receive correct, clear and honest information regarding the conditions and guarantees for flat products (apartments) as described in Article 4 letter (c) of the UUPK [9]. Even the PPJB signed before a notary, is usually made by the developer by including a clause in the standard agreement which is only determined unilaterally by the developer is often misused by business actors, where the contents of the agreement determine the obligations of consumers more than the obligations of the business actor himself. Not infrequently the agreement contains an exoneration clause, namely a clause

with the exception of obligations in the agreement or it can be said to transfer the responsibility of the developer.

# The Use of PPJB in Pre Project Selling as a Consumer Reference in Executing Obligations

The process of selling condominium units including commercial condominium units can be carried out in 3 (three) different time periods. The three time periods for selling commercial flats refer to Article 42 to Article 44 of the UURS, namely: Pre project selling, Ongoing project selling and Post project selling. Pre-project selling is the sale of flats in the period of condominium construction that has not yet started through the marketing process. Ongoing project selling is a sales process when the construction of the flats is in progress and has not been completed. Post project selling is a sales process after the construction of the flats has been completed and is ready to be used or occupied. In this study, it focuses more on pre-project selling.

The condominium sale process as stated in Article 42 paragraph (2) letter e of the UURS determines that one of the conditions for the sale of commercial condominium units is that the developer has built a house as much as 20% of the total condominium plan to be built. If the development has been running at least 20%, the developer is allowed to market and sell both the flats that have been built and those that have not been built. One of the stages that becomes a marwah in selling and purchasing flats (apartments) with a pre project selling system is located in PPJB. PPJB which is used in UURS as Lex Specialis for the process of selling and purchasing flats. PPJB in pre project selling to get an agreement on achievements and contra-achievements or rights and obligations which will be the basis for binding the parties to always carry out the sale and purchase agreement.

The sale and purchase agreement does not recognize the term consumer, because in the sale and purchase agreement only parties are known, namely the seller and the buyer. If there is negligence by the seller in fulfilling the contents of the sale and purchase agreement, the demands of the community as buyers in general are the return of the down payment or the realization of the house, not the punishment of the construction actors. The need for strict regulation in the form of statutory arrangements because Indonesia adheres to a positive legal system. Legal sanctions against sellers or development actors who make PPJB not in accordance with what is being marketed, or before fulfilling the certainty requirements as stipulated in Article 43 paragraph (2) and Article 98 of the 2011 UURS, development actors may be sentenced to a maximum imprisonment of 4 (four) year a maximum fine of Rp. 4,000,000,000,- (four billion rupiah) as regulated in Article 110 UURS Year 2011, while UUPK only regulates criminal sanctions for sales promotions that are not true.

The issuance of the Minister of Public Works and Public Housing Regulation Number 11/PRT/M/2019 concerning the Preliminary Sale and Purchase Agreement, which includes the developer's obligations at the time of signing the PPJB as follows:

- a) Show certificates of land rights;
- b) Submit a copy according to the original IMB;
- c) Show/submit a statement regarding the availability of ready-to-build land outside the joint land which will be submitted to the Regional Government;
- d) Show / submit a report from the construction supervisory consultant or construction management consultant that the construction volume of the marketed flats construction has reached 20%.

According to the Regulation of the Minister of Public Works and Public Housing Number 11/PRT/M/2019 on the Pre -Sale and Purchase Agreement, at least PPJB contains:

- a) Identity of the parties;
- b) PPJB object description: physical data, location and location;
- c) The house price and payment procedures for the developer must not withdraw more than 80% of the funds before fulfilling the PPJB requirements;
- d) Guarantee for the perpetrators of the development of the legality of ownership;
- e) Rights and obligations of the parties;
- f) Time of handover of buildings: handover is carried out with (i) minutes of handover (BAST) of keys and (ii) deed of sale and purchase or certificate of ownership of the condominium unit/certificate of ownership of the condominium building;
- g) Building maintenance: maintenance is the responsibility of the developer for a minimum of 3 months since the signing of BAST;
- h) Building use;
- i) Transfer of rights;
- j) Cancellation and expiration of PPJB;
- k) Dispute resolution.

PPJB made by the parties in the sales pattern by pre project selling if it has not met the element of balance, while the balance of the parties will only be realized when they are in the same strong position. Often the buyer when making a transaction is in a weak position, while an agreement becomes invalid if given due to mistake, coercion or fraud. PPJB is included in the obligatory agreement, that is, when an agreement is valid then the agreement is binding, but only limited to the rights and obligations and at that level there has been no transfer of ownership. Another agreement called a material agreement (Zakelijke Overeenkomst) is required for the transfer (Levering) to occur in order for the transfer of property rights. Similarly with PPJB, which must only make the rights and obligations of the parties only, while for the transfer of rights after the issuance of another agreement called AJB before PPAT.

An agreement made before a Notary, if submitted as a tool of evidence in court then the agreement becomes a tool of evidence that cannot be denied by the parties. Judges are even required to believe the evidence is valid. An agreement has more perfect force when made before a notary or made in the form of a notarized deed. Only unfortunately consumers do not understand that the signature in the Notary's office is different from the signature in the presence of a Notary. PPJB in pre project selling is used as an initial commitment or as a "temporary binder", in the hope that the apartment sale transaction can run smoothly. Although PPJB is regulated in the Civil Code as a preliminary agreement and does not violate the legal requirements of the agreement as stipulated in Article 1320 of the Civil Code, but the politics of land law that gave birth to Government Regulation No. 24 of 1997 and Government Regulation No. 37 of 1998 Jo Government Regulation No. 24 of 2016 has affirmed that national development requires the guarantee of legal certainty on the registration and transfer of rights to land, not excluding land on which flats are built. The manifestation of the quarantee of legal certainty in this case is the maximum effort to prevent the occurrence of land disputes. There are still many people who are confused about the position of PPJB which is considered as a sale and purchase of land in general starting from the existence of PPJB which is legally defective.

If an agreement is classified as a formal agreement, then the non-fulfillment of legal provisions regarding, for example, the form or format of the agreement, the method of making the agreement, or the method of ratification of the agreement as required by laws and regulations will result in the formal agreement being null and void. The definition of a formal agreement is an agreement that is not only based on the agreement of the parties, but by laws and regulations which also require certain formalities that must be fulfilled so that the agreement is valid by law. The purpose of certain formalities, for example regarding the form or format of the agreement that must be made in a certain form, namely with an authentic deed or a letter under the hand. An underhand agreement can be used as evidence in court as regulated in Article 1875 of the Civil Code which reads: "An underhanded writing that is recognized by the person against whom the writing is intended to be used, or in a manner according to the law is considered recognized, gives it to other persons, the person who signs it becomes a perfect proof like an authentic deed. Arrangements by laws and regulations regarding certain formalities for formal agreements are an exception to the principle of consensuality in agreement law that is generally applicable, because according to the principle of consensuality, an agreement has occurred with the agreement of the parties who made it.

# PPJB Legal Protection Principles in Pre Project Selling for Consumers in Buying Flats (Apartments)

Flats are buildings that are built in storied in an environment, divided into several functionally structured parts in horizontal and vertical directions and are housing units, each of which can be owned and used separately, especially for residential areas equipped with parts. common property, common object and common land. The apartment unit whose main purpose is to use it separately as a residence, which is built connected to a public road. A term that provides a legal meaning for high-rise buildings that always provide a system of individual ownership and joint rights, which are used for residential independently or in an integrated manner as an integral part of a development.

The relationship between apartment units and shared objects, shared parts and shared land can be seen from the Proportional Comparison Value (hereinafter referred to as NPP). The NPP figure shows how much the rights and obligations of an HMSRS holder to their joint rights are. NPP is calculated based on the building area or the value of the flat as a whole at the first time calculating the overall development cost to determine the price [9]. Some ordinary consumers, before buying a flat or apartment, must know the tips for buying a house or apartment so that they do not feel disadvantaged in the future, namely:

- Location;
- Price or form of invoice;
- Source of funds;
- Document.

It is necessary to pay attention to the four things mentioned above because of the increase in property prices to the national economy so that both developers and consumers alike can minimize speculative elements. As previously stated, the pre-project selling system that is very profitable for developers does not mean that consumers are not benefited at all. However, consumers must really know what their rights and obligations are so that later the thought does not arise that the consumer feels aggrieved.

Consumers in pre-project selling, may sign an order letter for an apartment after being declared a potential buyer of an apartment even though the order is not followed up with PPJB. Consumers who have signed the Order are deemed to have agreed and will be subject to all the rules set forth because by signing the Order Letter, the customer is obliged to carry out all obligations and if he is negligent, he is deemed to have defaulted. Moreover, in the order letter, a statement has been written that if you do not pay the installments for 3 (three) consecutive months, it is considered to have canceled the order letter, and if it is canceled by the customer, all money that has entered the seller's account cannot be requested back.

After the issuance of the Regulation of the Minister of Public Works and Public Housing (PUPR) Number 11/PRT/M/2019 concerning the Preliminary Agreement System for the Sale and Purchase of Houses for the manufacture of PPJB after the Minister of PUPR Regulation in 2019, prospective buyers are entitled to study PPJB at least 7 (seven) working days before signing PPJB before a Notary. If for some reason the PPJB is forced to be canceled due to the negligence of the developer, then all payments that have been received must be returned to the buyer. While PPJB is canceled due to buyer negligence, if the payment has reached a maximum of 10% of the transaction price, the entire payment becomes the rights of the developer or if the payment exceeds 10% of the transaction price, the developer has the right to deduct 10% of the transaction price.

The contractual relationship that is used as the legal basis for consumer protection, in addition to reducing the opportunity for consumers to file a lawsuit, also limits the liability of business actors which results in reduced liability of business actors. Meanwhile, the statements put forward by business actors during the pre-transaction period or before the implementation of the contractual relationship are binding promises and it is also the responsibility of the business actors themselves to fulfill them, such as promises made in brochures and exhibitions on when offering flats / apartments. Thus, it can be said that the responsibilities of business actors are not only limited based on contractual relationships but also include when business actors carry out product promotion activities in pre-transactions. Statements during the promotion period are very important to be accounted for because in fact these statements are intended to attract consumers to buy a product. On the other hand, for consumers, these statements become information that consumers consider when deciding to buy a product.

The provision of housing needs full attention because housing is one of the basic human needs as mandated in the 1945 Constitution Article 28 H paragraph (1). The same thing is also stated in Article 40 of Law no. 39 of 1999 concerning Human Rights concerning every person who has the right to live and have a decent life, and is emphasized in Agenda 21 which emphasizes the importance of the board (house) as a human right [10]. The obligation to fulfill these basic needs obliges the state to proactively strengthen public access to resources and at the same time demands state intervention in ensuring the right of every citizen to obtain a decent living. Based on positive law, the state participates in realizing the welfare of its people through the provision of basic needs, flats as a place to live for every Indonesian citizen in accordance with their dignity as human beings. The government as the highest authority, through Article 28 H paragraph (1) of the 1945 Constitution has provided protection by guaranteeing the basic rights of every citizen to get a decent place to live. The government can then participate in determining the laws and regulations related to the implementation of flats/apartments that are sold through the pre project selling system, especially in the context of the supervisory function of the sale and purchase of flats. The

agreement with the PPJB system in pre project selling is one of the positive laws set by business actors in this case the developer to other parties in order to enforce the rights of each party.

The construction of flats must meet various requirements as stipulated in Article 6 UURS in conjunction with Government Regulation Number 4 of 1988 concerning Flats, namely administrative requirements and technical requirements which are more severe because flats have different forms and special conditions from landed houses. Flats are multistorey buildings that will be inhabited by many people so it is necessary to guarantee security, safety and enjoyment in the occupants. Article 6 of the UURS explains that the technical requirements include, among others, regulating space, structure, building components and materials, flat units, shared parts and objects, building density and layout, and environmental infrastructure and facilities.

Flats and their environment must be built and implemented based on a permit issued by the local government, according to its designation. After completing the construction of flats, the flat construction company is required to obtain a livable permit (based on UURS No. 20 of 2011 known as the Certificate of Eligibility for Functioning). The rise of non-compliance with flat buildings in accordance with function-worthy certificates, then the Minister of Public Works and Public Housing Regulation Number 19 of 2018 concerning the Implementation of Other Building Constructions (IMB) and the Functional Eligibility Certificate (SLF) of Buildings were issued through the Electronically Integrated Business Permit (PUPR Ministerial Regulation No. 19 of 2018) by the Government of Indonesia. IMB from business actors obtained through Online Single Submission (OSS). The IMB must fulfill the IMB commitment through the Building Management Information System (SIMBG), where this SIMBG is operated by the Regency / City Government or the DKI Jakarta Government [11]. Business actors must fulfill the IMB commitments in the IMB within the timeframe required by the business actors in fulfilling the IMB commitments, which is 30 (thirty) days from the date of issuance of the IMB.

The use of contractual relationships as the legal basis for consumer protection, in addition to reducing the opportunity for consumers to file lawsuits, also limits the responsibilities of business actors which results in reduced liability of business actors. Statements put forward by business actors during the pre-transaction period or prior to the execution of the contractual relationship are binding promises and it is also the responsibility of the business actor himself to fulfill them. Thus, it can be said that the responsibilities of business actors are not only limited based on contractual relationships but also include when business actors carry out product promotion activities in the pre-transaction period [12]. Thus, the government has made various efforts so that apartment business actors, especially apartments, are more responsible to be able to provide certainty for the continuation of the development of flats that are being marketed, especially for flats / apartments that have been paid in full by consumers.

# Lack of Consumer Legal Protection in PPJB Pre Project Selling

Pre project selling is a term for sales before the project is built, in this case the property being sold is still in the form of a concept [13]. Sometimes there are developers who carry out the concept of pre project selling before the infrastructure and facilities are built, but there are also developers who market them after the facilities and infrastructure have been built. Temporary, the marketing concept with its own pre-project selling system, in practice, benefits the developer because it is relatively helpful for the developer's money turnover.

The amount of investment burden that must be borne for the construction of a flat (apartment) construction project is assisted by funds from consumer orders, the amount of which ranges from up to 20% (twenty percent). The existence of an order from a prospective buyer, followed by a down payment of up to 20% (twenty percent) will make it easier for developers because developers do not need to provide development capital up front for large development costs.

Some of the factors that cause the lack of consumer protection in PPJB pre-project selling include many consumers who buy flats (apartments) without wanting to learn more about what pre-project selling is. Consumers assume that filling out the order form and paying a certain amount of payment will automatically get an apartment credit facility, even though after filling out the order form and paying the payment receipt, it will be followed by the signing of the PPJB followed by a down payment of up to 20%. As a result, consumers objected when they had to provide a down payment of 20% of the set selling price and were forced to forfeit the payment sign that had been paid [14]. If the consumer wants the money not to be lost, then the consumer must find another buyer who is willing to continue the order, of course with the knowledge of the developer.

PPJB content material contained in the attachment of the Minister of Public Works and Public Housing No. 11/PRT/M/2019 are as follows:

### a. Head of deed

Contains the title of the deed, deed number, hour, day, date, month, year, full name and domicile of the notary.

# b. Identity of the parties

Contains the full name, place and date of birth, nationality, occupation, position, position and residence of the parties to the agreement.

# c. PPJB object description

Contains the object to be agreed in the form of an apartment, by explaining the physical data (area of the condominium unit), the location (village or sub-district, sub-district, city or district, province), and the location of the apartment building, floor and unit number for the condominium unit in the apartment.

# d. The price of the flat and the method of payment

Contains the selling price, explanation of the procedure and time of payment, as well as costs arising from the agreement, and development actors may not withdraw funds of more than 80% (eighty percent) to the buyer before fulfilling the PPJB requirements.

# e. Guarantee of development actors

Making guarantees for development actors on the validity of ownership not in dispute and guarantees for proof of ownership of condominium units.

- f. Rights and obligations of the parties
- 1. the rights of development actors at least include receiving payments for flats and other rights regulated in the provisions of the legislation and/or in accordance with the agreement;
- 2. The obligations of development actors shall at least include:
- carry out the construction of houses according to the site plan and permits complete the construction of houses in a timely manner;
- inform the buyer of development progress;
- provide infrastructure, facilities and utilities in accordance with permits and submit them to the Regional Government;

- provide opportunities for buyers to study PPJB;
- provide clear explanations and information to buyers regarding the contents of PPJB,
   and
- specifically for condominiums, facilitate and socialize the formation of the association of apartment owners and occupants in accordance with the provisions of the legislation, managing during the transition period prior to the formation of the association of apartment owners and residents in the construction of flats; and explain the common part, common object and common land
- 3. Buyer's rights shall at least contain
- a) Obtain true, honest and accurate information about the flats;
- b) knowing the terms and conditions in the sale and purchase of the flats before making payment for the price of the flats;
- c) receive the handover of the flats within the agreed time period;
- d) submit a claim for improvement of the physical condition of the flat that is not in accordance with the agreed specifications;
- e) obtain legal protection from the actions of development actors with bad intentions;
- f) carry out proper self-defense in legal settlements;
- g) the right to form associations of residents and apartment owners in the construction of flats in accordance with the provisions of laws and regulations; and
- h) other rights that are regulated in accordance with the provisions of the legislation and/or according to the agreement.
- 4. Buyer's obligations are at least:
- a) make payment of the price of the flat in accordance with the amount and payment schedule that has been agreed in PPJB;
- b) fulfill the obligation to pay fees, including the Fee for the Acquisition of Rights to Land and Buildings (BPHTB) arising from the sale and purchase of houses;
- c) pay the house price in accordance with the amount and payment schedule that has been agreed in the PPJB;
- d) use the house according to its designation;
- e) comply with environmental regulations issued by development actors as temporary managers prior to the issuance of rules and regulations set by the association of condominium owners and residents;
- f) have good intentions to implement the provisions in PPJB; and
- g) g) other obligations that are regulated in accordance with the provisions of the legislation and/or according to the agreement.
- g. During the handover of the building, the handover is carried out by the developer of the condominium unit that has been built, accompanied by the document of the key handover document and the deed of sale and purchase or certificate of ownership rights / certificate of condominium ownership rights / certificate of ownership of the condominium building.
- h. Building maintenance
  - a) The developer is responsible for the maintenance of the house for a minimum of 3 (three) months from the signing of the handover of the house;
  - b) during the maintenance period as referred to in letter (a), the buyer has the right to submit a complaint for the non-conformance and/or imperfection of the house in accordance with the agreement; and

c) the repair of the complaint as referred to in letter (b), including reimbursement and costs incurred, is the responsibility of the development actor.

# i. Building use

- a) the use of the house as a residence in accordance with its purpose and designation;
   and
- b) the cost of using paid facilities and/or paid utilities used by the buyer is the responsibility of the buyer.

# j. Transfer of rights

- a) the buyer is prohibited from transferring the condominium rights before the signing of the deed of sale and purchase is carried out;
- b) the transfer of rights prior to the signing of the deed of sale and purchase can be carried out if prior written approval is obtained from the development actors; and
- c) the transfer of rights is carried out before a notary.

# k. Cancellation and expiration of PPJB

- a) cancellation of PPJB can only be carried out in accordance with the provisions governing the terms of cancellation in PPJB agreed upon by the buyer and development actor; and
- b) the termination of PPJB is the fulfillment of the agreed achievement or engagement and certain conditions in the agreement.

## l. Dispute resolution

- a) disputes related to PPJB, must be resolved by deliberation to reach consensus;
- b) the dispute is resolved by deliberation within a maximum period of 30 (thirty) days; and
- c) disputes can be resolved through dispute resolution efforts as referred to in the provisions of the legislation in the housing and settlement sector.

# m. Closing

Contains about the signing and the place of signing.

#### n. attachment

For flats with one flat building, attach a shared land plan, a vertical cut and show the contents or the inside of the building and a floor plan showing where the condominium is located. For flats with more than one flat building, attach pictures of the location of one flat building or block, pictures or boundaries of shared land, pictures of buildings that are cut vertically and show the contents or the inside of the building and a floor plan showing the floors of the flats are located.

Many consumers buy apartments because they are stuck with marketing offers and hedonic desires, so consumers force themselves to fill out apartment booking forms. On the other hand, many developers themselves are innovating, offering a down payment (DP) for apartments that can be paid in installments or a 0% down payment program to help consumers who don't have a down payment for a down payment, but want to own an apartment soon.

Consumers must understand and understand all forms of agreements given when buying flats, especially with the pre project selling system. When signing the order letter or PPJB, clauses regarding obligations and sanctions that will be imposed on consumers will definitely be included [15]. The consumer is considered to be ready with all the risks faced, so that if the consumer does not pay the installments as stated above, then they are declared to have defaulted. Consumers who find the building does not meet specifications, or other

things that are not regulated in the agreement can communicate with the developer, but do not stop their obligation to pay on time. Legal protection to consumers is still not going well and it is actually used by developers by providing incomplete information when selling with a pre project selling system. As a result, many apartment consumers are found who feel disadvantaged due to the inability of the developer to fulfill their achievements or obligations to the customer.

#### Conclusions

Legal protection has been improved from time to time, but has not been able to provide protection to every consumer who makes selling and purchasing flats (apartments). In addition, supervision has not been carried out on business actors, in this case developers, so that there is often an imbalance in selling and purchasing flats (apartments), especially those using the pre project selling system. In general, business actors in compiling PPJB of flats/apartments for the sale of their projects often argue and argue that the PPJB which has been signed by both parties is valid, both in terms of substance and clauses because it has been agreed and signed by both parties as stated in Article 1338 of the related Civil Code freedom of contract and agreement applies as law for the parties. However, business actors forget the conditions for the validity of an agreement as regulated in Article 1320 of the Criminal Code, one of which is a lawful cause. This means that the agreement must not violate the law or in other words it must not conflict with the laws and regulations.

Analysis of the application of laws and regulations, especially regarding legal protection for consumers who buy and sell flats (apartments) through pre project selling, regulations on flats and the preparation of binding agreements for sale and purchase of flats which are generally in the form of standard agreements, and related regulations other things must be strictly supervised so that the developer in carrying out his obligations is guided by all existing regulations. Legal protection for consumers who buy flats (apartments) is the protection of the basic rights of consumers on the flats they buy from the developer of the apartment. Consumers who feel aggrieved by the developer, then if the condition of the apartment that has been purchased is not in accordance with what has been previously agreed, the consumer should be able to sue directly to the developer to fulfill his obligation to provide compensation for the flat (apartment). ) that have been traded. Consumers should get more attention when making transactions, especially in the midst of the current free trade era, where consumers who buy flats (apartments) are not only Indonesian citizens, but also foreign nationals.

The increasingly complex economic system also has an impact on legal developments in the relationship between producers and consumers. The spearhead of the target aimed at by the developer is the consumer, therefore consumers need to be protected from all kinds of situations as stated above. The use of contractual relationships as a legal basis for consumer protection, in addition to reducing the opportunity for consumers to file lawsuits, also limits the responsibilities of business actors in this case developers which results in reduced responsibilities of these business actors, while statements made by business actors in the pre-war period. transactions or prior to the execution of a contractual relationship are binding promises and it is also the responsibility of the business actor himself to fulfill them. The responsibilities of business actors can thus be said to be not only limited based on the contractual relationship written in the agreement, but also include all promotional activities carried out during the pre-transaction period, such as brochures, promotions, advertisements

because after all for consumers pre-transaction statements is information that is taken into consideration by consumers to decide in buying an apartment.

#### References

- 1. Marzuki P.M. 2008. Penelitian Hukum. Jakarta, Kencana.
- 2. Ibrahim J. 2011. Dalam Teori dan Metodologi Penelitian Hukum Normatif. Malahq, Bayumedia.
- 3. Santoso U. 2010. Pendaftaran dan Peralihan Hak Atas Tanah. Jakarta, Kencana Prenada Media
- 4. Subekti R. 2009. Hukum Perjanjian. Jakarta, Intermasa.
- 5. Dharsana IM.P. 2021. Sistematika Pembuatan Perjanjian Notariil dan Pertanahan, www.notarymagazine.com, downloaded on March 11, 2021.
- 6. Sumardjono M.S.W. 2001. Kebjakan Pertanahan Antara Regulasi & Implementasi. Jakarta, Buku Kompas.
- 7. Widjaja G. & Yani, A. 2011. Hukum tentang Perlindungan Konsumen. Jakarta, PT. Gramedia Pustaka.
- 8. Andasasmita K. 1983. Hukum Apartemen, Bandung, Ikatan Notaris Indonesia Komisariat Jabar.
- 9. Article 45 of Law no. 20 of 2011 on Flat Houses.
- 10. Law No. 1 of 2011 on Housing and Residential Areas, LN No. 7 of 2011, | TLN No. 5188 Year 2011.
- 11. Law No. 23 of 2014 on Local Government, Article 11 and Article 12 paragraph (1) letter c on public works and space arrangement.
- 12. Sinaga N.A. 2018. Peranan Asas-Asas Hukum Perjanjian Dalam Mewujudkan Tujuan Perjanjian, Jurnal, Binamulia Hukum. *Binamulia Hukum*, 7(2), 107-120. doi: 10.37893/jbh.v7i2.20.
- 13. Triyanto H.A. 2018. Perlindungan Hukum Terhadap Konsumen Atas Perjanjian Pendahuluan Dalam Jual Beli Atas Satuan Rumah Susun Yang Dipasarkan Dengan Cara Pre Project Selling. Res Judicata. 1(1), 57-69. DOI: http://dx.doi.org/10.29406/rj.v1i1.1039
- 14. Yudhantaka L. 2017. Keabsahan Kontrak Jual Beli Rumah Susun dengan Sistem Pre Project Selling. Yuridika, 32(1), 84-104. DOI http://dx.doi.org/10.20473/ydk.v32i1.4793
- 15. Winarto. Y. 2019. Dua Regulasi Baru Perlindungan Bagi Pemilik Rumah Susun Atau Apartemen. Retrieved from https://amp.kontan.co.id/news/dua-regulasi-baru-perlindungan-bagi-pemilik-rumah-susun-atau-apartemen accessed on June, 15 2021.