

Lotteries in Slovakia. The Business Legislation in the Lotteries Segment and Selected Slovakia's Region Population's Relationship to Gambling

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BACKGROUND: Lotteries are probably the most geographically widespread and one of the most profitable types of gambling in terms of revenue in the selected country. Players in Slovakia can place a bet in 9 lotteries, including additional games. **AIMS:** The main goal of this paper is to present potential conditions for the development of lottery business in the Slovak Republic, including legal definitions of lottery types, legislative restrictions and state regulation. A separate part of the paper is dedicated to analysing the results of a questionnaire research aimed at finding out the preferences of selected types of gambling.

METHODS: The study was carried out in Slovakia and focused on lotteries. Data collection took place from 1st March 2020 to 1st April 2020. Chi-square test and Z-score were used to assess selected hypotheses.

RESULTS AND CONCLUSION: Interesting findings have

emerged from the research. The questionnaire's possible reach was 7,537 people during the one-month data collection, with the return of 129 (1.71%) responses. In total, 33.3% of respondents take part in gambling, 20% of respondents place bets in lotteries (60.5% of gamblers) and the most common form of placing a bet is through a terminal (80.8% of players) – in a facility. There are no significant statistical differences in terms of the respondents' geographical domicile on the frequency of gambling, participation in any types of games or the average amount of the deposit, invested in gambling. In addition to the specific form of the corporation specified by the legislation – the national lottery company – it is possible to operate only a bingo-type lottery to other business entities. For this reason, business in the lottery segment in Slovakia is minimal for other companies.

Keywords | Lotteries – Gambling – Slovak Republic – Slovak Legislation for Lotteries and Gambling Games – Player's Relation to Gambling

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● 1 THEORETICAL BACKGROUND

Gambling is not a recent history phenomenon; its origins can be found in history far before our era. Stein and Birnham Evans (2009) mention that a tomb was discovered in Ancient Egypt containing 4,000 years old dice, evidence of gambling can be found in China and Japan around 2300 BC. In the Middle Ages, soldiers and traders on the road, during their stays in inns, often overwhelmed by alcohol, indulged in various games of chance. At the beginning of the modern age, i.e. in the first half of the 16th century, lotteries became very popular, especially in Western European countries, as a means of raising funds for royal courts, often as a form of “voluntary taxation” (Stein & Birnham Evans, 2009).

According to Prunner (2013), some individuals have joined games of various kinds in the past, which brought them excitement, resulting from the possibility of betting and subsequently winning. The opportunity to get more amount than was invested attracts a significant number of people. Not all players belong to the category of individuals who are not aware of the possible risk and are blinded by the desire to win, thus losing the inhibition of self-regulation. They control their investments and “gamble” in moderation to fill a range of entertainment.

Available statistics on gambling in Slovakia, published in 2018 (Financial Directorate of the Slovak Republic, 2018), show a declining number of gambling establishments, e.g. in 2015, the number of operations was more than 14.5 thousand, this decreased to 11 thousand in 2017, but deposits increased between these periods by almost 14%. The value was €3.457 billion in 2017. Nevertheless, in 2017, transfers from gambling to the state budget amounted to nearly €198 million, which, when recalculated, accounted for revenues from gambling levies. This amount equals to 1.407% of state budget revenues in 2017, which totalled €14.014 billion. If we transferred funds from gambling to expenditures into state health care facilities, which in 2017 amounted to €1,294.64 million, we would thus reimburse 15.235% of these expenses (Ministry of Finance of the Slovak Republic, 2020). In 2020, according to the Central Register of Gambling Operators, 70 entities were operating some type of gambling, and a total of 140 individual licenses and 31 general licenses were granted by the Gambling Regulatory Authority (Gambling Regulatory Authority, 2020).

Many studies by several authors (e.g. Nespoř, 2011; Prunner, 2013) show that the prevalence of pathological gamblers in different countries is in the range of 2% for those who occasionally experience minor problems. In the group of players who experience major problems and adverse links, the prevalence of pathological gambling is around 0.7%. According to Prunner, the level of gambling, which causes the occasional occurrence of minor problems, appears to be risky and can be considered a transitional boundary. In the case of gaming leading to major issues and adverse connections, this causes the individual to negatively affect their life and lives of people around them. The survey from April 2019 (Ford & Håkansson, 2020), conducted in

Sweden, showed 5.7% of gamblers are addicted. The authors used the screening of a lifelong history of pathological gambling, using structured questions (so-called NODS). The estimated prevalence of the most severe form of gaming disorder (pathological gambling) is up to 1.2% of the total population based on research from the Czech Republic (Mravčík et al., 2015). Similar opinions are held by Ostrovský (2017), who claims that approximately 5% of the adult population in the Czech Republic are at-risk players, of which one fifth to one-tenth (i.e. 0.5–1% of the population) are pathological players.

Drbohlavová et al. claim that electronic gambling (i.e. gambling on the Internet and games operated on electronic devices – slot machines) represents the largest market segment abroad and also in the Czech Republic and poses a far higher risk to gamblers than lotteries or scratch cards, in which there is a lower risk of addiction with a financially destructive consequence. According to statistics from 2013, electronic gambling – games on electronic devices – accounted for 3.7 devices per 1,000 inhabitants. In particular, electronic gambling players form a majority of people suffering from problems associated with participation in gambling (Drbohlavová et al., 2015 & Williams et al., 2012).

We can conclude that approximately 95% of players consider participating in gambling to be a recreational activity without any negative impact on the real-life of the individual and their surroundings based on recent research (Ford & Håkansson, 2020). An interesting finding is that men prefer to participate in knowledge-based games, and women prefer lotteries or board games (Ariyabuddhiphongs, 2012).

1.1 Gambling

According to *Act no. 30/2019 Coll.* a game can be considered a gambling game if the player can win, have they met the game's conditions and paid a deposit and placed a bet. These games are divided into lottery games, charity lotteries, table and betting games, games on slot machines or video game terminals, technical devices operated directly by players and games of chance on other technical devices. Lottery games are according to §5 of *Act no. 30/2019 Coll.* gambling games in which winnings are declared and distributed according to predetermined rules in the plan of the game. A win condition might be, e.g. guessing a specific number, group of numbers, numerical order, character or image, or obtaining a coupon, ticket or other document that contains a value compared to the value determining the result of the game. The value that determines the outcome of the lottery game is chosen by a draw, for example, randomly drawing a number or a lot (*Act 30/2019 Coll.*).

1.2 Lotteries

According to *Act no. 30/2019 Coll.* a lottery means a game in which the win is conditioned by guessing a specific number or a combination of numbers, or numerical order. In these

games, the number of players is not predetermined; also, the amount of the game principal is not predetermined. The final reward is calculated according to the number of winners or the total amount of bets, or a predetermined proportion or is calculated by multiplying the bet according to how the player guessed from the limited number of drawn numbers the number of drawn numbers determined by the game plan. The law defines four types of number lotteries:

- **lotto** is a lottery in which the winnings are calculated according to the number of winners and the total amount of bets by a predetermined share in the game plan. The total amount earmarked for winnings is divided into several ranks, and all winnings of the same rank must be the same (*Act no. 30/2019 Coll.*). The North American Association of State and Provincial Lotteries (2020) defines lotto as a lottery game from which a player chooses “X” numbers from the “Y” field. Games are often referred to as e.g. lotto 6 of 49. The games have several levels of prizes determined by the game plan, including the main award, so-called jackpot, which increases if the no correct guess is not made (North American Association of State and Provincial Lotteries, 2020).
- **keno** is according to *Act 30/2019 Coll.* a lottery in which the win is determined by a multiple of the bet according to the rules set out in the game plan. The North American Association of State and Provincial Lotteries (2020) adds that keno is a lottery game in which a player chooses a number of “X” numbers to match as many “Z” numbers as possible from the field of the “Y” numbers. One of the classic keno games is 10 out of 20 out of 80. In most keno games, players can choose how many numbers they want to select, i.e. they can change the value of “X”, which affects their chances of winning (North American Association of State and Provincial Lotteries, 2020).
- **bingo** is a lottery game in which an unspecified number of numbers from a closed number line is drawn according to the game plan's rules from an unspecified number of players and the amount of the winning principal. The amount of individual winnings is determined according to the total amount of bets, the winning principal, the type of the winning category of the bingo and the results of the draw (*Act No. 30/2019 Coll.*). The Alcohol and Gambling Commission of Ontario (2020) defines bingo as a gambling game where players win a prize, respectively prizes for being the first to complete the specified arrangement of numbers on a pre-printed ticket signed for a specific game, based on a random selection – drawing numbers. Multiple prizes can be awarded in one bingo game, e.g. three prizes can be awarded for playing one game – each for filling in: a) the inner square, b) the outer square and c) the full ticket. The game ends when all three prizes in the game have been awarded.
- **special bingo** is a particular type of bingo game in which bets are accepted, and winnings are paid out through a terminal in the facilities or via internet. The draw and the entire course of the special bingo are carried out centrally, while its progress and results are usually published by the mass media (*Act 30/2019 Coll.*). In the past (between years 1996–2007), the state lottery compa-

ny TIPOS operated this type of lottery under the name “TIPOS-BINGO” nationwide. By gradual drawing, it was possible to participate in following categories: (pay attention, not the rule as in the definition of the Alcohol and Gambling Commission of Ontario – which defines the game of bingo, which is held in the so-called bingo halls according to the approved schedule – it is not a game at the national level): a) four corners, b) diagonals, c) jackpot and d) TIPOS-BINGO – the full ticket (TIPOS, 2007).

The Slovak legislation defines a particular gambling game, the so-called **state lottery** – lottery (lotto, keno including additional games), special bingo and lottery of receipts of income prepared according to a special regulation. The state lottery operator must be an entity, a joint-stock company, which has been granted a state lottery license by the government. This company must bear the designation “national lottery company”. The national lottery company's registered capital is at least €1,7 million (*Act 30/2019 Coll.*).

A specific type of gambling, with elements of a lottery, can be a **charity lottery**. According to *Act no. 30/2019 Coll.* a charity lottery is a gambling game with some of the features of lottery games, including number lotteries, betting games, including non-sporting betting event features. Proceeds from the charity lottery operation must be used for purposes under *Act no. 595/2003 Coll.* on income tax, as amended. An individual license to operate a charity lottery can be granted only to a foundation based in Slovakia. Or to an interest association to a foundation based in the Slovak Republic, if the foundation capital is at least €166,000 or such amount represents the sum of foundation assets of all members of the interest association. Moreover if in the last five years the foundation has provided at least €5 million for public benefit purposes for civic associations, non-profit organisations, etc. with the fact that each year the foundation provided €830,000 to at least 100 civic associations of non-profit organisations providing a public benefit purpose. And if in the last five years in each year the foundation or members of the interest association have submitted an auditor's report to the register of financial statements (*Act No. 30/2019 Coll.*).

For comparison, Stein and Birnham Evans (2009) state that in the USA, a charity lottery is one of the legal types of gambling that are established, respectively implemented for fundraising activities. These games have the most common form in school raffles, bingo games operated in churches of a certain community or so-called “Las Vegas nights” – a lucrative way for charities to raise money (Vegas Nights Entertainment, 2020). Some US states have established separate divisions for charitable games; in general, this type of gambling is not strictly regulated because the proceeds are intended for non-profit organisations sponsored by them (Stein & Birnham Evans, 2009).

1.3 Gambling games legislation

Governments have recognised that gambling leads to various social and economic damages, similarly to tobacco and

alcohol and put in place public policies based on harm reduction. A key factor of this unprecedented growth is the increasingly sophisticated technology of designing and delivering gambling products and the availability of machinery and equipment (Hancock et al., 2008). Limited-income governments worldwide are increasingly relying on gambling taxes. Gambling has become an important area of public policy and government activity. Damages associated with gambling, together with tobacco and alcohol, require the need for specific laws and regulations, focusing on the potentially harmful effects of product use, licensing and specific training to prevent the damage they have under certain conditions of supply and use for adverse economic, social and other impacts on users, their families and communities. Some jurisdictions recognise such damages and have an unrestricted veto on gambling and operating licenses under an exemption. Regulatory and technological factors mostly work on the basis of the development of the regulated gambling industry. From a technological point of view, the development of new information technologies has led to the creation and offer of innovative ways of gambling that have captured new preferences of players. The aim of public administration control is to protect consumers from illegal gambling proposals and the proper development of the market (Calvosa, 2013).

In the Slovak Republic, gambling is very strictly regulated and conditioned by various laws and regulations. The primary source of Slovak law focused on gambling is *Act no. 30/2019 Coll. on gambling*, which opens up opportunities for doing business in online casinos – opening up the online gambling segment.

Knowledge of legislative sources is important for the activity of lotteries in the gambling business:

- **Act no. 30/2019 Coll. on Gambling and on Amendments to Certain Acts** regulates the conditions for the operation and promotion of gambling, the rights and obligations of the gambling operator, the supervised entity and the player, the position and competence of the national lottery company, state supervision over the operation of gambling and other requirements. The purpose of this Act is in the public interest to create conditions for the protection of public order in the operation of games and also to ensure compensation for risks arising from the operation and participation in gambling.
- **Decree no. 60/2019 Coll. The Ministry of Finance of the Slovak Republic**, which establishes the content and scope of data entered in the list of foreign representations and requirements for applications concerning the list of foreign representations. It is intended for legal entities domiciled in another member state of European Union interested in gambling in the Slovak Republic based on an individual or general license, which, however, must create its foreign representation in the territory of the Slovak Republic. This decree clearly defines the application requirements for foreign entities with representation in the Slovak Republic territory.

- **Decree no. 134/2019 Coll. The Ministry of Finance of the Slovak Republic**, which clearly defines the submission of data on technical equipment used in the operation of gambling, formulates models for billing levies and monthly contribution to the Gambling Regulatory Authority, explains the requirements for submitting accounting and reporting data and other provisions.
- **Decree no. 142/2019 Coll. The Ministry of Finance of the Slovak Republic**, which defines requirements for technical equipment and systems used in the operation of individual types of gambling, including details of deposits, bets and winnings for individual types of gambling. The requirements apply to technical equipment and systems used in the operation of gambling games in the form of servers. Data on all games are recorded and protected in these servers, allowing online access to data on ongoing games for Gambling Regulatory Authority. Another requirement arising from the decree is focused on specific technical requirements for equipment in the operation of lotteries and bingo and other games.
- **Decree no. 437/2019 Coll. the Ministry of Finance of the Slovak Republic**, which lays down the requirements for the application for a professional assessment of technical equipment and systems used in the operation of gambling, i.e. all the necessary data on the equipment that will be used in the operation of gambling, i.e. in the case of number lotteries, technical equipment for drawing numbers, specialised equipment for collecting bets (terminals), etc.

The state authorities for gambling in Slovakia are the Ministry of Finance of the Slovak Republic and the Gambling Regulatory Authority – a newly established office, which takes over the performance of state administration in gambling from the Ministry of Finance of the Slovak Republic from 1st June 2019. The office issues licenses of various types – general license and individual license, supervises compliance with the law and licensing conditions and control over compliance with the law, manages contributions to the state budget, maintains a central register of gambling operators, imposes sanctions under *Act no. 30/2019 Coll.*, etc. The office's main task is to create conditions for the protection of public order in the operation of gambling and to ensure social compensation for the risks arising from participation in the game and its operation. The office's operation is also financed from the monthly contribution and the gambling operator's special contribution. The final supervisory authority for the area of gambling is the municipality, which performs the administrator of the levy to the municipal budget, imposes sanctions according to legal regulations and can establish various decisions through generally binding regulations, e.g. on location, resp. non-location of gaming rooms, casinos, apply the conditions according to other legal regulations, the municipality may also determine the days during which will be prohibited to operate gambling in the municipality territory.

● 2 AIMS, METHODOLOGY AND DATA

In connection with the aims of our study, an electronic questionnaire data collection was carried out. The collection of answers took place from 1st March 2020 to 1st April 2020, and the questionnaire was published on the Slovak town Považská Bystrica's social network. Due to the beginning and accumulating COVID-19 crisis and the related constant need to get information to citizens, this caused the insufficient display of the post with the questionnaire; therefore, there was a representative sample of 129 respondents.

The aim of the research was to find out the preferences of gambling among the population of the selected region. In the introduction, the questions focused on finding out which type of gambling games the respondent knows and whether they ever participate in gambling. Respondents who stated that they participate in gambling were asked how often they participate in gambling, for what reason and how much money they invest in gambling per week. Subsequently, the frequency of participation of the respondent in individual types of gambling was examined. The significant response was any positive response to participation in lotteries. Respondents participating in lotteries have been asked a series of questions to determine which lotteries they participate in and which one they prefer the most. The critical aspect was finding out how they place bets in lotteries – whether in a terminal in some facility or via the Internet.

Attitudes towards gambling, especially in the context of lotteries, have been examined in connection with the following hypotheses:

H1: More than 50% of players of gambling games participate in lotteries.

H2: There are statistically significant differences in participation in individual types of gambling in the context of respondents' domicile.

H3: There are statistically significant differences in attitudes to the frequency of players' participation in lotteries depending on the respondents' domicile.

H4: There are statistically significant differences in the average value of funds invested in gambling per week, depending on the respondent's domicile.

In addition to the questionnaire, data were obtained from benchmarking, especially from the national lottery company TIPOS a. s., which created the competition's final picture, respectively investigating the lottery operator in the selected geographical area.

● 3 RESULTS

3.1 Questionnaire survey

The social media post with the questionnaire reached 7,537 followers during the one-month data collection (from 1st March 2020 to 1st April 2020). In total 129 (1.71%) responses returned, of which 47.3% participants were inhabitants of Považská Bystrica, 30.2% were from Považská Bystrica district, 20.9% were from Púchov, Ilava and Bytča districts, and 1.6% of respondents were from other districts. In terms of gender, 48.8% were women, and 51.2% were men. In terms of age, 45.0% of respondents were in the age group of 18–35 years, 31.0% belong to the age group between 36–50 years, the age group of 51–65 made up another 14.7% of the participants and the remaining 9.3% were participants over 66 years old. *Table 1* shows the research sample demographic characteristics, which was primarily divided by districts. Resulting value “% of total respondents” was used as 100% value for further segmentation by sex and age.

Overall, 7.8% of questionnaire respondents regularly participate in gambling, 25.6% sporadically and 66.7% of respondents do not play gambling games. Of those who participate in gambling, 39.5% do that less than once a month, 25.6% 1–3 times a month, 23.3% once a week and 11.6% several times a week. In terms of the average weekly value invested in gambling, 44.2% of respondents spend less than €2, 39.5% up to €10 and 16.3% over €10 per week.

When examining the participation of players in gambling games, the percentage values of the game types are as follows:

- scratch cards 48.9%
- raffles 27.9%
- lottery of receipts of income 9.3%
- table games (roulette, card games, etc.) 11.6%
- betting games 34.8%
- gambling on slot machines 16.3%
- lotteries 60.4%

District	% of total respondents	Male (%)	Female (%)	Age 18–35 (%)	Age 36–50 (%)	Age 51–65 (%)	Age 66+ (%)
Town Považská Bystrica	47.29	49.18	50.82	34.43	31.15	19.67	14.75
District Považská Bystrica	30.23	46.15	53.85	64.10	28.21	7.69	0.00
Púchov, Ilava & Bytča District	20.93	59.26	40.74	37.04	37.04	14.81	11.11
Other	1.55	100.00	0.00	100.00	0.00	0.00	0.00

Table 1 | Demographic research sample characteristics
Source: own data processing

Of the total number of respondents, 20% of respondents participate in lotteries. In terms of preferences, where there was only one answer, the most preferred lottery is *Loto* (34.6%), followed by *Eurojackpot* (30.8%), *Euromilióny* (19.2%) and 11.5% preferred lottery *Keno 10*.

It was further examined whether the price of one bet is adequate to the possible amount of winnings and the probability of achieving it. Respondents expressed the attitude: *yes* (23.1%); *no* (3.8%); *I can't judge* (46.2%), and *I never thought about it* (26.9%).

In terms of placing a bet, a large number of players place bets via the terminal in a facility (80.8%) and only 19.2% via the Internet. The author believes that this is also due to anonymity because when placing a bet over the Internet, it is necessary to create a player account.

Within the research, four hypotheses were defined. Chi-square test and Z-score were used for their assessment. Based on the determination of p-values, the statistical significance of perceived differences was determined. In terms of domicile of respondents for statistical calculations, respondents were divided geographically into following territories: *Považská Bystrica* (city Považská Bystrica + inhabitants of the district Považská Bystrica) – 101 respondents, *Považie* (districts Bytča, Púchov and Ilava) – 26 respondents. Other respondents 1.55% (2) from different districts than those listed were not included.

H1: More than 50% of players of gambling games participate in lotteries.

Based on data from a questionnaire survey, 33.3% of the total number of respondents participate in gambling. Up to 60.5% of players participate, resp. concludes lottery bets. Based on the data, we confirm hypothesis H1.

H2: There are statistically significant differences in participation in individual types of gambling in the context of respondents' domicile.

The following question was answered by 33.3% of respondents who commented on each option. Only positive values are shown in the table, i.e. statements of respondents – players of the game types. The structure of responses to H2 is shown in *Table 2*.

To calculate χ^2 , the values of the lottery of receipts of income and the raffles were merged, as well as table games and the betting games due to the non-zero member – the value of $\chi^2 = 1.2263$; p-value = 0.867072; $\alpha = 0.05$.

We reject hypothesis H2 because there are no statistically significant differences in participation in individual types of gambling in the context of respondents' domicile.

H3: There are statistically significant differences in attitudes to the frequency of players' participation in lotteries depending on the respondents' domicile.

The above statistical calculations in *Table 3* show no statistically significant differences in attitudes to the frequency of players' participation in number lotteries, depending on the respondents' domicile. We reject hypothesis H3.

	Total (%)	Považská Bystrica (%)	Považie (%)	Z-score	Z-score p-value
scratch cards	48.84	48.39	50.00	-0.0949	0.92828
raffles	27.91	25.81	33.33	-0.4936	0.62414
lottery of receipts of income	9.30	12.90	0.00	1.3066	0.1902
table games	11.63	16.13	0.00	1.4799	0.13888
betting games	34.88	35.48	33.33	0.1327	0.89656
gambling on slot machines	16.28	19.35	8.33	0.8781	0.37886
lotteries	60.46	58.06	66.67	-0.5175	0.60306

Table 2 | Structure of responses to hypothesis H2
Source: own data processing

	Total (%)	Považská Bystrica (%)	Považie (%)	Z-score	Z-score p-value
I do not place bets	39.53	41.94	33.33	0.5157	0.60306
I bet a few times a month	39.53	38.71	42.67	-0.1779	0.85716
I bet 1–3 times a week	20.94	19.35	25.00	-0.4082	0.6818

Table 3 | Structure of responses to hypothesis H3
Note: Value of $\chi^2 = 0.3128$; p-value = 0.855277; $\alpha = 0.05$
Source: own data processing

	Total (%)	Považská Bystrica (%)	Považie (%)	Z-score	Z-score p-value
Amount up to €2	44.19	48.39	33.33	0.8961	0.37346
Amount up to €10	39.53	35.48	50.00	-0.8733	0.3843
Amount over €10	16.28	16.13	16.67	-0.0428	0.9681

Table 4 | Structure of responses to hypothesis H4

Note: $\chi^2 = 0.9063$; p-value = 0.635614; $\alpha = 0.05$

Source: own data processing

H4: There are statistically significant differences in the average value of funds invested in gambling per week, depending on the respondent's domicile.

The results, illustrated in *Table 4*, show no statistically significant differences in the average weekly value of funds invested in gambling, depending on the respondents' domicile. We reject the H4 hypothesis.

3.2 Activities of the national lottery company TIPOS a. s. in the lottery segment in the selected territory

The segment of lotteries in Slovakia is provided by the national lottery company TIPOS a. s., owned by the Slovak Republic, which operates six lotteries, including additional premium games on its own, and three lotteries, including additional premium games, in cooperation with foreign partners. Players can place a bet on games via the terminal in a facility or via the Internet.

After studying the annual report of the national lottery company TIPOS a. s. for the year 2018, which is 100% owned by the Ministry of Finance of the Slovak Republic, we obtained information on its net profit of almost €8.1 million. In the case of differentiation into lotteries, the revenues are €406.75 million. Cost of prizes being €302.73 million, then

the profit for lotteries before taxes and levies is €104.02 million (TIPOS, 2019).

TIPOS terminals are located at selected branches of Slovenská Pošta – a state enterprise. It has 25 terminals in Považská Bystrica, 17 in the district of Bytča, 26 in the district of Púchov and 34 in the district of Ilava 34 (TIPOS, 2020). A total of 102 terminals are placed in our selected area, which according to the annual report for 2018 makes up 3.59% of the total terminals for 31st December 2018 (2,837). The average weekly revenue per terminal was €1,784.12.

The most common and most used method of placing a bet in lotteries, and thus logically also the highest share in total revenues, has the volume of bets placed in facilities via terminals (TIPOS, 2018). Based on the statement, we count on 75% of the total revenues of lotteries are generated by terminals, and with the number of 2,683 active terminals during 2017.

The *Table 5* shows that the average weekly revenue from lotteries for a terminal is €758, in the case of conversion to betting period €427. In 2018, revenues from lotteries amounted to €183,584,757. This year (2020), the game eKlub KENO was added. Compared to the year calculated by us, there was an increase in sales of 10.56%. Based on the opinion in the annual report: *The traditional game LOTO has stabilised after fluctuations in previous years (TIPOS, 2019)*, we

Lottery type	Total revenue (€)	Sales for terminals 75% (€)	Price of one bet (€)	Lottery draws per week	Number of sold bets
LOTO	56 292 488	42 219 366	0.80	2	52 774 208
Eurojackpot	28 935 374	21 701 531	2.00	1	10 850 765
Eurojackpot Joker	4 305 057	3 228 793	1.00	1	3 228 793
KENO 10	20 570 195	15 427 646	0.80	7	19 284 558
Klub KENO	24 957 898	18 718 424	1.00	2520	18 718 424
Euromilióny	15 224 822	11 418 617	1.20	2	9 515 514
Euromilióny Joker	1 287 685	965 764	0.50	2	1 931 528
JOKER	6 130 325	4 597 744	0.40	2	11 494 359
LOTO 5 z 35	7 250 844	5 438 133	0.40	2	13 595 333
KENO Joker	1 092 494	819 371	0.30	7	2 731 235
TOTAL	166 047 182	124 535 387	–	–	144 124 715

Table 5 | TIPOS lotteries and calculation of sales and draws for terminals placed in facilities

Source: own data processing based on the TIPOS Annual Report 2017 (TIPOS, 2018).

	Total closed bets per week	Closed bets per week for one terminal	Closed bets per betting period for one terminal	Weekly revenue per terminal (€)	Betting period revenue per terminal (€)
LOTO	1 014 889	378	189	303	151
Eurojackpot	208 669	78	78	156	156
Eurojackpot Joker	62 092	23	23	23	23
KENO 10	370 857	138	20	111	16
klub KENO	359 970	134	n/a	134	n/a
Euromilióny	182 991	68	34	82	41
Euromilióny Joker	37 145	14	7	7	3
JOKER	221 045	82	41	33	16
LOTO 5 z 35	261 449	97	49	39	19
KENO Joker	52 524	20	3	6	1
TOTAL	2 771 629	1 033	444	758	427

Table 6 | TIPOS lotteries and calculation of sales and draws for terminals placed in facilities

Source: own data processing

District	Number of terminals	Total amount of bets per terminals per betting period	Total revenue per terminals per betting period (€)	Total weekly amount of closed bets per terminal	Total weekly revenue per terminals (€)
Bytča	17	7 540	7 259	17 562	12 894
Považská Bystrica	25	11 088	10 675	25 826	18 961
Púchov	26	11 532	11 102	26 859	19 720
Ilava	34	15 080	14 517	35 123	25 788
TOTAL	102	45 241	43 552	105 369	77 363

Table 7 | Average sales of national lottery company TIPOS divided into terminals in the surveyed districts

Source: own data processing based on TIPOS (2020)

District	Population	Age 15–64 %	Age 65+ %	Age 15+	Population 15+	Population 18+
Bytča	30 965	68.83	14.95	83.78	25 942	24 681
Považská Bystrica	62 351	69.55	16.05	85.60	53 372	50 022
Púchov	44 284	68.92	16.67	85.59	37 903	35 526
Ilava	59 057	68.45	17.48	85.93	50 748	47 435
TOTAL	196 657	x	x	x	167 965	157 663

Table 8 | Demographic distribution of the population of selected districts

Source: own data processing based on selected statistics (Statistical Office of the Slovak Republic, 2020)

conclude that the position of the game Loto, which according to our calculations is one of the most frequently betted (36.6% of total bets per terminal), has not changed, as well as in other games we assume minimal percentage changes.

In the case of the KENO 10 and the klub KENO lotteries, the draw's price depends on the selection of the bettor. The minimum deposit for the game KENO 10 is €0.30 and the maximum €6 per ticket playing field. In the klub KENO game, the minimum deposit is €0.40, and the maximum is €2.40. For the purposes of the calculations, only one specific rate was chosen, see *Table 5*. In *Table 6* indicative calculations of sales in facilities with betting terminal are shown.

Table 7 shows the indicative weekly revenue for all terminals in focused districts for lotteries. The average monthly revenue for the area is of €309,452.

The data in the table show the coverage of online terminals is in the districts of Považská Bystrica from 84.1%, Púchov 79%, Ilava 88.5% and Bytča 86.9% from all municipalities in the district.

Demographic data are shown in the *Table 8* for examined districts. Persons in productive (15–64) and post-productive age (65+) presented for each district. To calculate persons in the age range of 18+, i.e. potential legal players of gambling

games, the ratio from 2018 (total population 5,445,089, per population 18+ 4,592,379) of 84.34% is used and mathematically calculated with respect to other factors (other population groups). The values are relatively stable, and a slight increase in the population of 18+ is expected, as the birth rate is continuously decreasing – population ageing is occurring. The values of the population are according to the year-round values for 2019.

● 4 DISCUSSION AND CONCLUSIONS

Questionnaire research showed that 33.3% of respondents participate in gambling. The most frequent group of gambling games are lotteries, with more than 60% of players participating in these (20% of the total respondents), followed by scratch cards bought by almost 49% of players. Compared to Chomynová et al. (2015) that stated that 17.2% of the population participate in lotteries, these values are comparable. On the contrary, in the continuity to scratch cards, 16.3% of respondents participated in our research, only 6.9% of the population bought them in the 2015 survey.

In terms of placing a bet, almost 81% of players (27.1% of all respondents) place a bet in lotteries through a terminal placed in facilities. More than 19% (6.2% of respondents) of players place a bet via the Internet. For comparison, the results published in 2015 (Chomynová et al., 2015) suggest that 5.6% of the population places bets over the Internet.

The most popular lottery is the Loto game, in which almost 35% of players place bets. The reason may be mainly the context of the so-called double-bets because Loto contains two draw types. Its popularity is mostly amplified by the largest cash prize of all the lotteries operated by the national lottery company. In terms of lotteries operated in cooperation with a foreign partner, the most popular game is Eurojackpot (almost 31% of players), probably due to high financial winnings, which are several times higher than in Loto.

The analysis of the legislation for lotteries and possible business opportunities in this segment shows that a business entity can operate only a bingo-type lottery without obtaining the status of a national lottery company, which is subject conditioned by law and licensing of state lotteries. The disadvantage of the bingo-type game for the operator is the need to draw winning numbers until all the numbers on at least one sold ticket is drawn. For the following reason, the accumulation of winnings for subsequent periods is minimal, and it is unrealistic to achieve a high winning amount. From the point of view of a lottery player, bingo in the Slovak market represents a unique type of gambling, with a higher chance of winning than a different kind of lotteries. Still, from the point of view of attractiveness for players, it may not be a successful project, especially in terms of winnings. The state, which does not allow entry into the profitable lottery industry (state lottery), is probably also aware of this. However, it is possible to run another number lottery in the form of a charity lottery. It is again conditioned by legislation, which allows it, due to the conditions for

foundations could be operated only by large foundations, mostly due to financial conditions. There is a clear contrast from the situation, especially in the USA or Canada, where charity lotteries are held in communities of citizens as a tool to raise funds, mostly in the form of raffles or lotteries such as bingo and others.

In the analysis of the national lottery company TIPOS a. s. we obtain an image of the researched area. Terminals for placing a bet in lotteries are located on average in the territory of 84.6% of municipalities in the surveyed area. Concerning the total number of terminals, the studied area is only 3.59% of the terminals' total number located in Slovakia. According to the data in *Table 7*, it represents 0.91% of annual revenue for lotteries (total bets placed through the terminal located in facilities).

The operation of any type of gambling on the territory of the Slovak Republic is conditioned by many legislative amendments, creating obligations for the operator and a wide range of possibilities for control by the state. Selected types of gambling, operated on devices, that also include lotteries, must be assessed by the future gambling operator in the state examination institute. Primarily to avoid accidental drawing, i.e. without any possibility of intervention, due to a change the results or a drawing algorithm in the case of gaming machines.

However, there is a way of operating “gambling game”, which by law does not have to be classified as a gambling game. Therefore, it is not subject to various regulations and obligations. In this category, we can include, e.g. participation in commercial mass media games that involve registration, e.g. via paid SMS. The player – the viewer then waits for the moment when, e.g. in the morning broadcast, will be contacted by telephone and win the price in case of correctly answered the “winning password”, which is always determined for each day and thus forces the “gambler” to watch the broadcast every day. This type of gambling is based on obtaining funds from players from all over Slovakia, and the winnings themselves accumulate, e.g. from the beginning of the week, when it is the lowest. At the end of the week, it can reach thousands of Euros in special premiums. However, in terms of the winning principal against the gaming principal, these are amounts in tenths, maximum numbers of percent. *Act no. 30/2019 Coll.* may define this game as a gambling game according to §4 par. 1, or according to par. 5 and 6 does not consider this type as a gambling game – e.g. as a promotional competition in order to support and increase the viewership of the television program. According to the Central Register of Gambling Operators (Gambling Regulatory Authority, 2020), it is not gambling because the mass medium is not listed in it. Thus the operator is exempt from many legal obligations and levies. The author of the article believes that dependence may also arise from participation in this project, as a possible win is expected based on a cash deposit – involvement and drawing a “winning” phone number by random selection, which does not pay the Gambling Regulatory Authority, which a certain amount part is intended for the treatment of gambling addiction.

Thus, gambling operators are harmed in terms of law and the levy, which, to the detriment of gambling entrepreneurs, pays for the treatment of addictions incurred by a third party which acquires from the income (after deducting the tax liability and fees associated with providing SMS collection services to another entity) considerable benefit. Not to mention the inspection and expert assessment of the “drawing device” of telephone numbers by the examination authority for their eligibility for legitimate drawing.

We think that the Slovak legislation is set up correctly – it allows the state, as the owner of a national lottery company, full control over nationwide lotteries and other types of gambling. Also, the legislation defines the levy on gambling (in the case of lotteries 20% of the gaming principal; in the case of bingo, 4.5% of the gaming principal to the state budget and 0.5% of the gaming principal to the budget of the municipality in which the bingo is operated), serves for the provision of services of general interest, which are mainly the operation of health care and social assistance, especially for pathological gamblers, administration and operation of a helpline for players with gambling problems, but also for the creation, development, protection and restoration of cultural heritage, etc. The operator of each gambling pays this levy to the state budget, and its amount is conditioned by the type of operated gambling game (*Act no. 30/2019 Coll.*).

The sample size was very small. Only 1.7% of the followers of Považská Bystrica’s official Facebook page took part in the study. According to the authors, the main reason was the tense situation of the society and the demand for current information about pandemic situation development, which at the time of data collection was caused by the beginning of the new coronavirus pandemic. We cannot generalise the selected data either, because the research concerned only a selected area of the Slovak Republic (geographically expressed 3.5% of the whole republic’s area, due to a special authors request). We recommend, for the possibility of creating comprehensive data, to carry out similarly focused research in various parts of the Slovak Republic and in a more favourable time (not affected by moods in society). Another limit in the calculations is the disregard for players who place bets via the Internet. Research questions can be expanded in future research by considering respondents’ property conditions and the influence of social background on participation in number lotteries and generally in gambling. It is also pos-

sible to consider other research aspects, e.g. in terms of gender in gambling. By selecting suitable alternative lottery games and an extended research concept, it is possible to research lottery players in the V4 countries, as well as an analysis of legislation and entities operating lotteries in those countries.

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Declaration of interest: The data in the paper are a partial output of the research for the purpose of the diploma thesis.

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