AN ANALYSIS OF THE DYNAMICS OF CHANGES IN THE NUMBER OF HOTEL GUESTS IN POLAND IN THE YEARS 2007-2017

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- dynamics of change,
- Hospitality management,
- Accommodation.

Abstract:

The purpose of this paper is to provide an analysis of the dynamics of changes in the number of overnight guests in hotels in Poland for the period from 2007 to 2017. The study focuses on data from the latest edition of "Tourism in 2017" published by Central Statistical Office in Poland (2018). Overnight guests include Polish resident travelers and non-resident foreign travelers staying overnight in Polish hotels. The obtained data pertaining to the number of both Polish and foreign tourists were analyzed using both discrete and continuous time series in an absolute and a relative (percentage) scales. Thus, the dynamics of changes in the number of both Polish and foreign tourists who stayed hotels in Poland in that period of time was evaluated. Furthermore, on the basis of the hotel overnight tourists change functions, the velocity rates and the acceleration rates of those changes have been calculated and presented in this study. The overnight tourists change velocity function denotes marginal changes of overnight tourists number during the time. The overnight tourists change acceleration function describes the tourists' pressure on the hotel accommodation market. In this study two types of definitions of dynamics were used: an absolute definition of dynamics for continuous series and a relative (the most appropriate) definition of dynamics for these continuous series converted to a percentage scale. The path of a process is the function describing basic continuous elementary events. Continuous sets, particularly when expressed in a relative (percentage) scale allows us to see the dynamics of economic processes in much better way. In the studied case, the discrete sets, converted to continuous sets clearly show the difference in the dynamics of change between the number of domestic and foreign overnight guests in Polish hotels in the years 2007-2017. The results shown in a relative scale provide a better picture of the dynamics of changes in the processes as all values are assigned an initial value of 100 percent. They therefore inform us what was the dynamics of growth of the initial 100 hotel guests in Poland in the years 2007-2017. Furthermore, by analyzing the velocity rates and acceleration rates of the number of resident and non-resident overnight guests changes in Polish hotels in the years 2007-2017 one can see a big difference in the dynamics of growth between the number of foreign and Polish tourists, with the latter of the two groups exhibiting a larger dynamics.

INTRODUCTION

Globalization processes in today's world mean that societies are becoming increasingly service oriented. The hospitality and tourism management industry has experienced a rapid growth and development in recent years, providing numerous jobs and contributing significantly to the world economy. Tourism and hospitality industry play a significant role in the Polish and regional economy and its expansion has a huge impact on the Polish economy. Tourism, as an important economy sector, not only contributes to economic growth and development, but it also creates many additional benefits. It creates new jobs in hospitality, gastronomy and transport businesses. The term "tourism" is used here in a very broad sense, and also includes all sorts of expenses connected with the departures and arrivals of visitors. Because of the complex nature of tourism, to analyse it one needs various sources of statistical data and the right methodological tools (Chang, Ching-Yick Tse 2012; Łuka, Łuka 2002).

This study is based on data from the latest edition of Tourism in 2017 Survey published by Central Statistical Office in Poland (2018). This is the source of data on capacity and occupancy in tourist accommodation establishments, participation of Polish and foreign residents in tourism and on border traffic. Information is obtained through the reports of the capacity and occupancy in tourist accommodation establishments in each year (Central Statistical Office, 2018).

The reporting units provide the following: precise location, type and category of the establishment, number of rooms, number of beds and catering establishments. Furthermore, they provide information on the establishments' bed and room occupancy in individual months. i.e. on the number of days of the establishment activity, nominal number of bed places or rooms, as well as the number of persons accommodated, and the number of overnight stays and rooms rented (separately for Polish and foreign guests). Data concerning the number of accommodation facilities, beds, and rooms covers all establishments open on 31 July each year and establishments closed on 31 July, but open on other days of the surveyed month. The maximum number of places has been assumed for them. The number of days of establishment activity does not include breaks between periods, caused by repairs, disinfection, etc. An active establishment is understood as an establishment which was accessible to guestss, at least in part, during the surveyed period. The number of overnight guests is the number of persons (tourists), who began their stay in an hotel in a given month. This means that the persons staying in the hotel at the turn of months will only be included in the survey once, which means that they will only be listed for one month. The number of overnight stays is the number of overnight tourists and the number of days of their stay.

On 31 July 2017, there were 10681 registered tourist accommodation establishments in Poland. Altogether there were 19 types of lodging facilities, with 4064 being in category of hotels and similar establishments and the remainder of 6617 falling into the rest of the categories. Amongst hotel-type lodging facilities, hotels were the largest group – 2540, while the largest group in the other categories were rooms for guests – 2083. In the general classification hotels category was also the largest one (23,8%) and the category of rooms for guests was the second largest (19,5%) in terms of the number of facilities. In the all lodging facilities there were 774,0 thousand bed places available. Traditionally, the most beds were available in hotels – 261,5 thousand, which made up 33,8% of all beds available. In 2017, as compared to the results of the 2016 survey, the number of all lodging facilities and the number of beds available have increased respectively by 1,6% and 3,3%. The percentage changes of the number of all lodging facilities and the number of beds available in hotels were respectively 3,1% and 3,2% (Central Statistical Office, 2018).

Table 1.1. Hotels in Poland by category – number of establishments in the years 2007-2017

Hotels	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	1370	1488	1634	1796	1883	2014	2107	2250	2316	2463	2540
*****	24	27	35	43	45	47	47	55	57	61	65
****	84	114	141	162	180	224	261	303	321	357	374
***	547	609	676	779	845	910	964	1056	1108	1202	1259
**	450	459	487	510	518	551	565	572	565	582	582
*	157	170	175	177	174	177	171	167	158	154	149
During categorization	108	109	120	125	121	105	99	97	107	107	111

Source: Own work based on data of the Central Statistical Office (2018)

Table 1.2. Hotels in Poland by category – number of beds in the years 2007-2017 (in thousands)

Hotels	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	141,1	155,8	165,6	176,0	187,0	198,1	208,6	227,5	235,6	253,3	261,5
*****	7,3	11,8	10,0	10,8	10,8	11,9	11,3	13,0	14,0	14,5	15,5
****	18,4	22,7	27,6	33,7	38,6	47,6	53,5	62,0	65,1	70,1	71,6
***	60,0	64,3	70,2	73,7	78,0	81,4	85,5	93,2	100,0	108,3	113,1
**	36,4	37,3	37,8	38,4	39,1	39,6	41,0	41,2	38,6	41,9	42,2
*	11,3	11,9	12,2	11,9	12,0	11,9	11,6	12,1	11,7	11,5	11,4
During categorization	7,7	7,8	7,8	7,6	8,6	5,8	5,7	6,1	6,2	6,9	7,7

Source: Own work based on data of the Central Statistical Office (2018)

Table 1.3. Hotels in Poland by category – number of rooms in the years 2007-2017 (in thousands)

Hotels	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	72,5	79,9	84,9	90,6	95,0	100,1	105,8	114,0	117,4	126,2	130,1
*****	4,3	6,9	5,8	6,2	6,2	6,6	6,3	7,0	7,4	7,6	8,1
****	9,5	11,8	14,4	17,6	19,7	24,0	27,6	31,0	32,3	34,8	35,4
***	31,2	33,2	36,0	38,1	39,9	41,4	43,1	46,9	49,9	54,1	56,3
**	18,6	18,7	19,2	19,4	19,4	19,7	20,5	20,4	19,3	20,8	21,1
*	5,4	5,7	5,8	5,7	5,7	5,6	5,6	5,8	5,6	5,5	5,5
During categorization	3,6	3,6	3,8	3,6	4,0	2,7	2,7	2,9	2,9	3,4	3,7

Source: Own work based on data of the Central Statistical Office (2018)
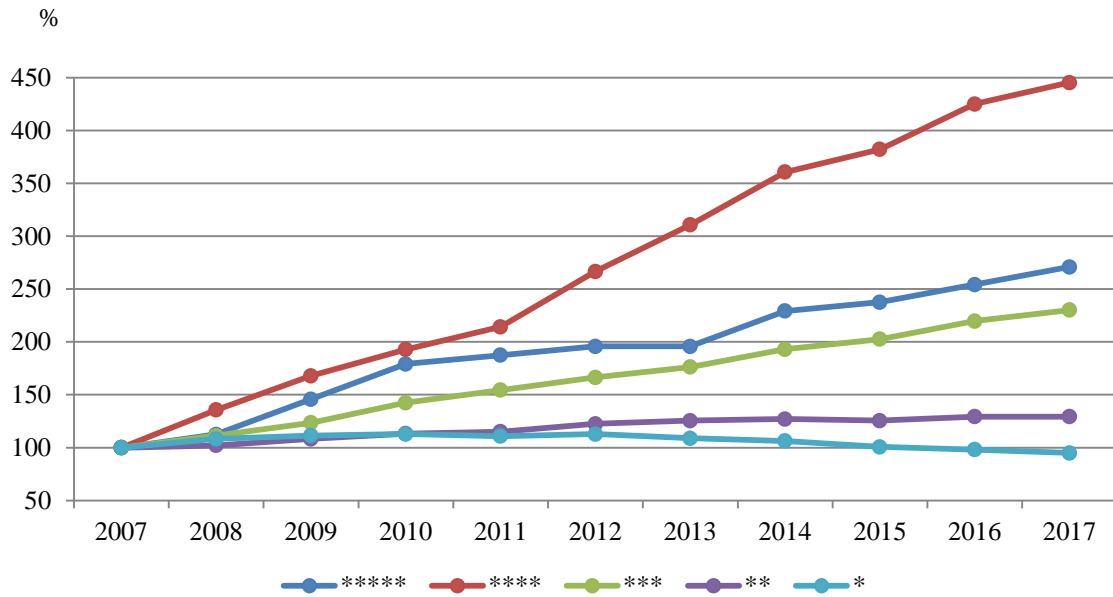
Figure 1.1. Hotels in Poland by category – development of the number of establishments in the years 2007-2017 (2007 = 100%).

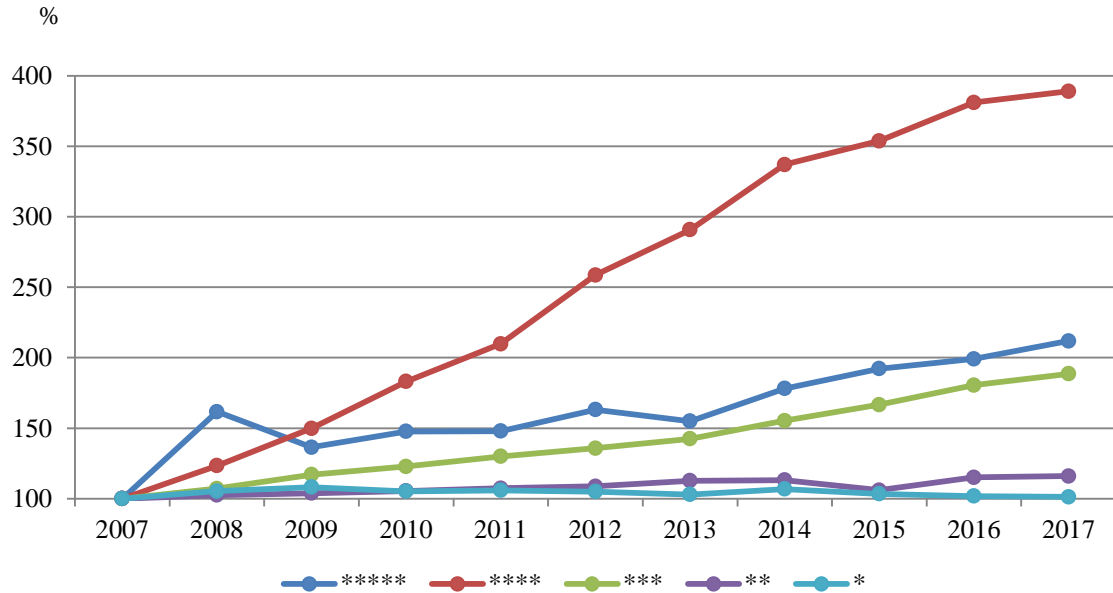Source: Own work based on data of the Central Statistical Office (2018)

Figure 1.2. Hotels in Poland by category – development of the number of beds in the years 2007-2017 (2007 = 100%).

Source: Own work based on data of the Central Statistical Office (2018)
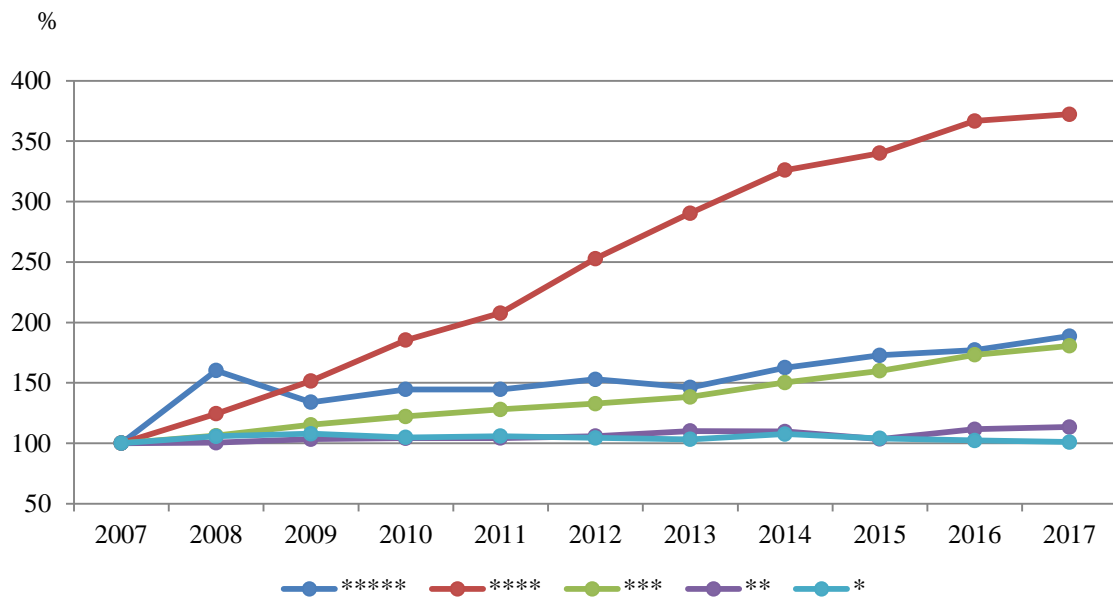
Figure 1.3. Hotels in Poland by category – development of the number of rooms in the years 2007-2017 (2007 = 100%).

Source: Own work based on data of the Central Statistical Office (2018).

Tables 1.1., 1.2., and 1.3. present all hotels by category, including the number of hotel establishments, the number of beds, and the number of rooms available in Poland in the researched period from 2007 to 2017. Furthermore, figures 1.1., 1.2., and 1.3. present the developments of the number of hotel establishments, the number of beds, and the number of rooms in that period.

A general increase in the number of all hotel facilities was observed during the period (in 2017 it was 185,4% of the 2007 value). Especially, a considerable rise in the number of first class (4-star) and luxury (5-star) hotels contributed to this phenomenon (figure 1.1.). However, the increase was most dynamic in 2010 (11,8%) and the less dynamic in 2015 (4,8%). Moreover, among the total number of hotels, apart from those that were remained in their categories, there was a certain number of hotels which were in the process of categorization. Although this number was slightly increasing (in 2017 it was 102,8% of the 2007 value), it fell strongly in the period of 2010-2014 by 25,9%. The number of beds in Polish hotels also increased. In 2017, as compared to 2007, the number of hotel establishments, the number of beds, and the number of rooms in those hotels increased respectively by 85,4%, 85,3%, and 79,4%. In 2017 compared 2016 these numbers are 3,1% for the number of hotel establishments, 3,2% for the number of beds and 3,1% for the number of rooms available.

METHODS

The aim of this analysis is the evaluation of the dynamics of changes in the number of domestic and foreign overnight guests in Polish hotels in the years 2007-2017. In this study, empirical data published by the Central Statistical Office of Poland (2018) was used.

Symbols used in this study:

t – time expressed in appropriate units, e.g. years;

J_t – general symbol for a value in time *t*, expressed in an absolute scale, in time series considered to be discrete time series (for example the general number of overnight guests in hotels in year *t*);

J_0 – initial value in time *t* (value in the year 2007), in an absolute scale, in discrete time series, $t = 0$;

J_k – final value in time *t* (value in the year 2017), expressed in an absolute scale, in discrete time series;

M_t – general symbol for a value in time *t*, expressed in an absolute scale, in continuous time series;

M_0 – initial value in time *t*, (value in the year 2007), in continuous time series, $t = 0$;

M_k – final value in time *t*, (value in the year 2017), in continuous time series;

P_t – value in time *t*, expressed in a relative scale, where $P_0 = 100\%$, percentage values are obtained through a linear transformation of the M_t value. P_t informs us about an increase or a decrease in the initial 100 units of the value, it is a normalised scale;

P_0 – initial value in time *t*, (value in the year 2007), expressed in a relative (percentage) scale, $P_0 = 100\%$;

P_k – final value in time *t*, (value in the year 2017), expressed in a relative (percentage) scale;

V(J) – overnight tourists change velocity rate;

A(J) – overnight tourists change acceleration rate;

P_K – relative (percentage) change of a final value of a time series as in regard to the initial value (eg. M_k to M_0, where $M_0 = 100\%$).

Table 2.1. The number of Polish and foreign guests in hotels in Poland in the years 2007-2017

Year	All guests [thousands]	Polish guests [thousands]	Foreign guests [thousands]
2007	10323,5	6786,2	3537,3
2008	10739,1	7470,7	3268,4
2009	10641,8	7500,3	3141,5
2010	11739,9	8355,5	3384,4
2011	12721,6	9129,1	3592,5
2012	13461,3	9439,1	4022,2
2013	14568,2	10246,0	4322,3
2014	16138,3	11616,4	4521,9
2015	17487,1	12779,4	4707,7
2016	19615,4	14359,1	5256,3
2017	20916,1	15375,9	5540,2

Source: Own work based on data of the Central Statistical Office (2018)

Table 2.1. presents empirical data on the number of Polish and foreign overnight guests in Polish hotels in the years 2007-2017. Primary empirical data values are marked with J_t, set, where *t* is the time given in years from 2007 to 2017. They are of a discrete nature.

Data in this form do not allow to evaluate the dynamics of change (Łuka, 2007; Łuka, Kwiatkowska-Sienkiewicz, 2010a, 2010b; Stokłosa, 2004, 2006). Therefore, they were transformed into continuous time series M_t, by adding up consecutive sets according to the formula (2.1.):

$$M_t = \sum_{t=0}^{t} J_t, \quad \text{and} \quad J_t = M_t - M_{t-1} \tag{2.1.}$$

The M_t values tell us how many Polish and foreign overnight tourists, as well as how many guests in total were in Polish hotels after the passage of a given period of time t. Thus, the M_t sets show us how the number of people who used the hotel services changed on a long-term scale. They allow us to assess the dynamics of change in the examined processes on an absolute scale for consecutive years. In order to assess this dynamics also on a relative scale the sets were subjected to a linear conversion into a relative (percentage) scale P_t according to the following formula (2.2.):

$$P_t = \frac{M_t \cdot 100}{M_0} [\%] , \tag{2.2.}$$

where: $P_0 = 100\%$,

  $M_0 > 0$,
  M_0 – the initial value of the set,
  M_t – the value in time t.

On the P_t scale all sets are assigned the initial value $P_0 = 100\%$. Likewise, the discrete J_t sets were converted into a percentage scale $P_t [\%]$ according to the formula (2.3.):

$$P_t = \frac{J_t \cdot 100}{J_0} [\%] , \tag{2.3.}$$

where: $P_0 = 100\%$,
  $J_0 > 0$,
  J_0 – the initial value of the set,
  J_t – the value in time t.

P_t series allow for the most accurate comparison of the dynamics. They show us with what dynamics the number of the initial 100 guests increased in Poland in the period from 2007 to 2017. To compare different dynamics it is necessary to start with the same initial value of the compared processes. The relative (percentage) scale P_t is the most suitable for this purpose (Kondratowicz-Pietruszka, Stokłosa 1994; Stokłosa, 2004, 2006).

Two definitions of dynamics are used in this study: an absolute one for the M_t sets and a relative (the most appropriate) one for the P_t sets. Absolute dynamics is defined as the changes in momentary velocity and momentary acceleration on a precisely defined path of the process. Relative dynamics, on the other hand, is defined by the changes in specific momentary velocity and specific momentary acceleration on a precisely defined path of the process. The path of a given process is the mechanism of an elementary event, repeated over and over in time, and in effect a cause-and-effect descriptive function which takes into account the elementary mechanism (Abraham-Frois, 2002; Kondratowicz-Pietruszka, Stokłosa, 1994).

All J_t sets, the obtained M_t sets and the calculated sets of percentages P_t for both discrete and continuous series are presented in table 3.1., which also contains the values of the $P_K [\%]$ parameter calculated according to formulas (2.4.), (2.5.) and (2.6.):

for discrete sets J_t:

$$P_K = \frac{J_k \cdot 100}{J_0} [\%]$$ (2.4.)

where: $J_0 > 0$,

J_0 – the initial value,

J_k – the final value;

for continuous sets M_t :

$$P_K = \frac{M_k \cdot 100}{M_0} [\%]$$ (2.5.)

where: $M_0 > 0$,

M_0 – the initial value,

M_k – the final value;

for discrete and continuous sets P_t :

$$P_K = \frac{P_k \cdot 100}{P_0} [\%]$$ (2.6.)

where: $P_0 > 0$,

P_0 – the initial value,

P_k – the final value.

The P_K value tells us what percentage of the initial (100%) value the final value is. The P_K values are not appropriate for assessing the dynamics of processes. However, they provide interesting information on the changes of the value at the end of the process as contrasted with the initial value at the onset of the process (Kondratowicz-Pietruszka, Stokłosa, 1994). The results of the above calculations are presented in tables 3.1. and 3.2.

The values for the overnight tourists change velocity rates $V(J)$ were found in accordance with the following formula (Kondratowicz-Pietruszka 1995, Łuka, Kwiatkowska-Sienkiewicz 2010b; Łuka, 2017):

$$V(J) = -\frac{dJ_t}{dt}$$ (2.7.)

The overnight tourists change velocity function is the first order derivative of the J_t values and it denotes marginal changes of the overnight tourists number during the processing time.

The values for the overnight tourists change acceleration rate $A(J)$ have been calculated using following equation (Kondratowicz-Pietruszka 1995, Łuka, Kwiatkowska-Sienkiewicz 2010b):

$$A(J) = \frac{dV(J)}{dt} = \frac{d^2 J_t}{dt^2}$$ (2.8.)

The overnight tourists change acceleration function is the second order derivative of the J_t values and describes the tourists' pressure on the hotel accommodation market.

RESULTS AND DISCUSSION

Table 3.1. contains discrete empirical data pertaining to the total number of overnight guests in Polish hotels in the years 2007-2017. They have been assigned the symbol J_t. It also presents the values of this process converted linearly into continuous sets – they are marked with the symbol Mt. Moreover, it also contains the relative (percentage) values P_t for both discrete J_t and continuous M_t series. Additionally, for every set in an absolute and a relative scale, the table provides the calculated changes of the final values as compared to the initial values (P_K). Using the data from table 3.1., figures 3.1. and 3.2. were created. They show the total number of overnight guests in hotels in Poland in the years 2007-2017 and the dynamics of changes in the total number of overnight tourists in Polish hotels in those years.

Table 3.1. The total number of overnight guests in Polish hotels in the years 2007-2017

Year	t	J_t [thousands]	P_t [%]	M_t [thousands]	P_t [%]
2007	0	10323,5	100,0	10323,5	100,0
2008	1	10739,1	104,0	21062,6	204,0
2009	2	10641,8	103,1	31704,4	307,1
2010	3	11739,9	113,7	43444,3	420,8
2011	4	12721,6	123,2	56166,0	544,1
2012	5	13461,3	130,4	69627,2	674,5
2013	6	14568,2	141,1	84195,5	815,6
2014	7	16138,3	156,3	100333,8	971,9
2015	8	17487,1	169,4	117820,9	1141,3
2016	9	19615,4	190,0	137436,3	1331,3
2017	10	20916,1	202,6	158352,4	1533,9
P_K [%]		202,6	202,6	1533,9	1533,9

Source: Own study based on data of the Central Statistical Office (2018)

The total number of overnight guests in Polish hotels in the period from 2007 to 2017 grew over the researched years, which means that there was a general increase in the value ($P_K = 202,6\%$). It was a gradual process of a rather slow dynamics. Between the years 2007 and 2009 the velocity rate of the process went down, while in the years 2009-2010, it clearly increased, and then to 2012 it decreased again. From 2012 to 2014 it went up and from 2014 to 2015 decreased again. In 2016 it went up and in 2017 it went down again. It is also worth noting that in the year 2016 the increase of the velocity rate was the largest – 2,1 million overnight guests (table 3.1., figures 3.1. and 3.2.).
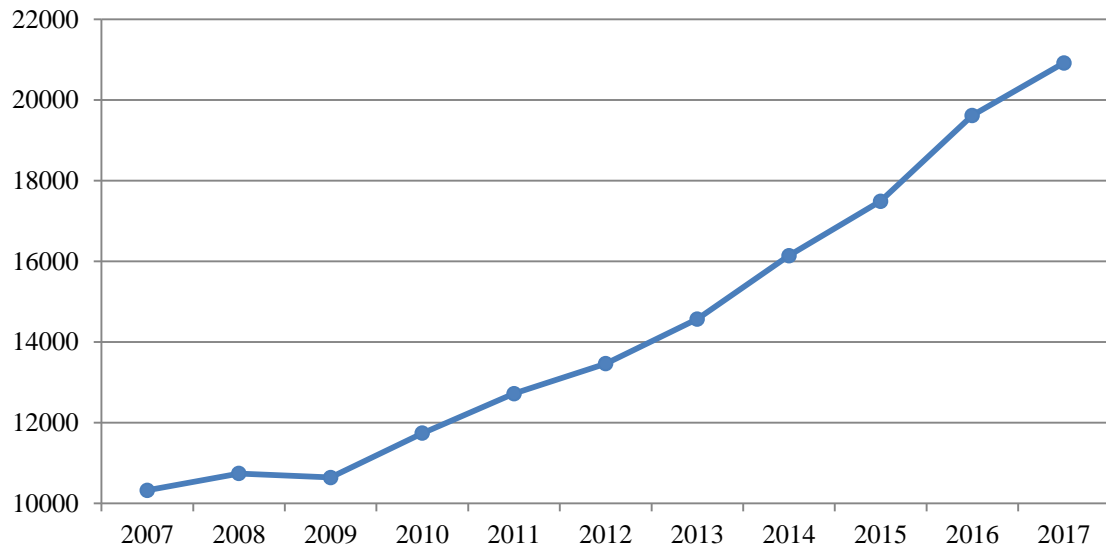
Figure 3.1. The total number of overnight guests in Polish hotels in the years 2007-2017 – J_t values (in thousands)

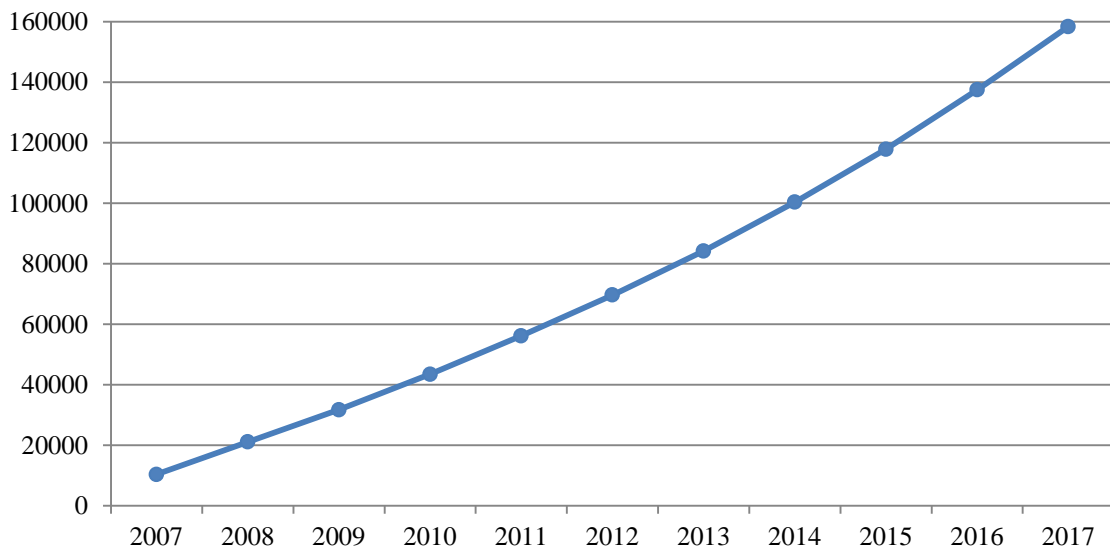Source: Own study based on table 3.1.

Figure 3.2. The dynamics of change in the number of all overnight guests in Polish hotels in the years 2007-2016 – M_t values (in thousands)

Source: Own study based on table 3.1.

When comparing the discrete sets J_t with the continuous sets M_t, both of which pertain to the numbers of overnight tourists in Polish hotels, one can clearly notice that the picture of a continuous process is a far better way of presenting a trend over time (figures 3.1. and 3.2).

Table 3.2. The dynamics of change in the number of overnight guests in Polish hotels in the years 2007-2017

Years	t	Polish guests				Foreign guestss			
		J_t [thousands]	P_t [%]	M_t [thousands]	P_t [%]	J_t [thousands]	P_t [%]	M_t [thousands]	P_t [%]
2007	0	6786,2	100,0	6786,2	100,0	3537,3	100,0	3537,3	100,0
2008	1	7470,7	110,1	14256,9	210,1	3268,4	92,4	6805,7	192,4
2009	2	7500,3	110,5	21757,3	320,6	3141,5	88,8	9947,1	281,2
2010	3	8355,5	123,1	30112,8	443,7	3384,4	95,7	13331,6	376,9
2011	4	9129,1	134,5	39241,9	578,3	3592,5	101,6	16924,1	478,5
2012	5	9439,1	139,1	48680,9	717,3	4022,2	113,7	20946,3	592,2
2013	6	10246,0	151,0	58926,9	868,3	4322,3	122,2	25268,6	714,4
2014	7	11616,4	171,2	70543,3	1039,5	4521,9	127,8	29790,5	842,2
2015	8	12779,4	188,3	83322,7	1227,8	4707,7	133,1	34498,2	975,3
2016	9	14359,1	211,6	97681,7	1439,4	5256,3	148,6	39754,5	1123,9
2017	10	15375,9	226,6	113057,7	1666,0	5540,2	156,6	45294,7	1280,5
P_K [%]		226,6	226,6	1666,0	1666,0	156,6	156,6	1280,5	1280,5

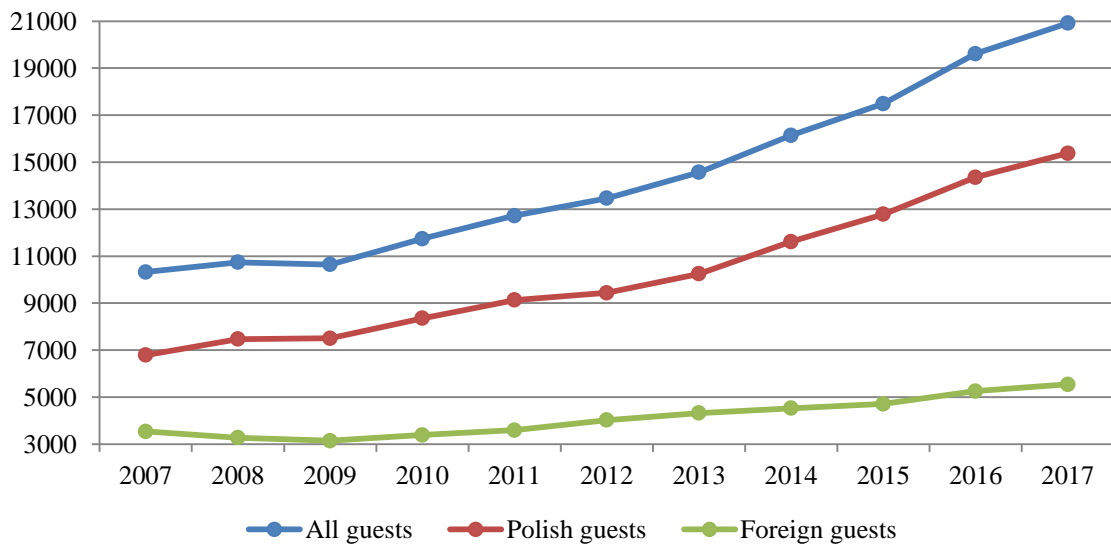Source: Own study based on data of the Central Statistical Office (2018)

Figure 3.3. The number of overnight guests in Polish hotels in the years 2007 – 2017 – J_t values (in thousands)
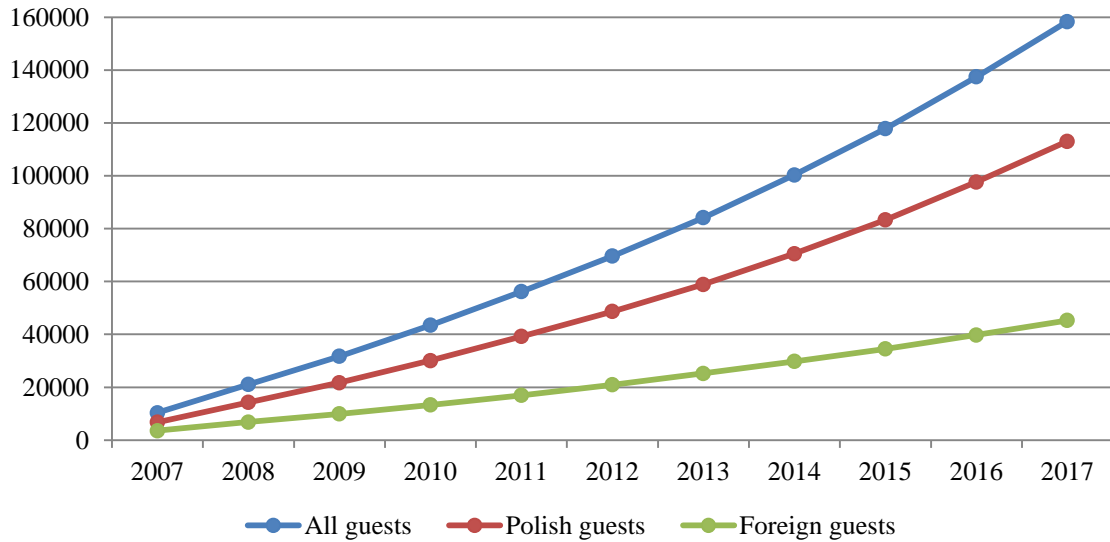
Source: Own study based on table 3.2.

Figure 3.4. A comparison of the dynamics of change in the number overnight guests in Polish hotels in the years 2007-2017 – M_t values (in thousands)
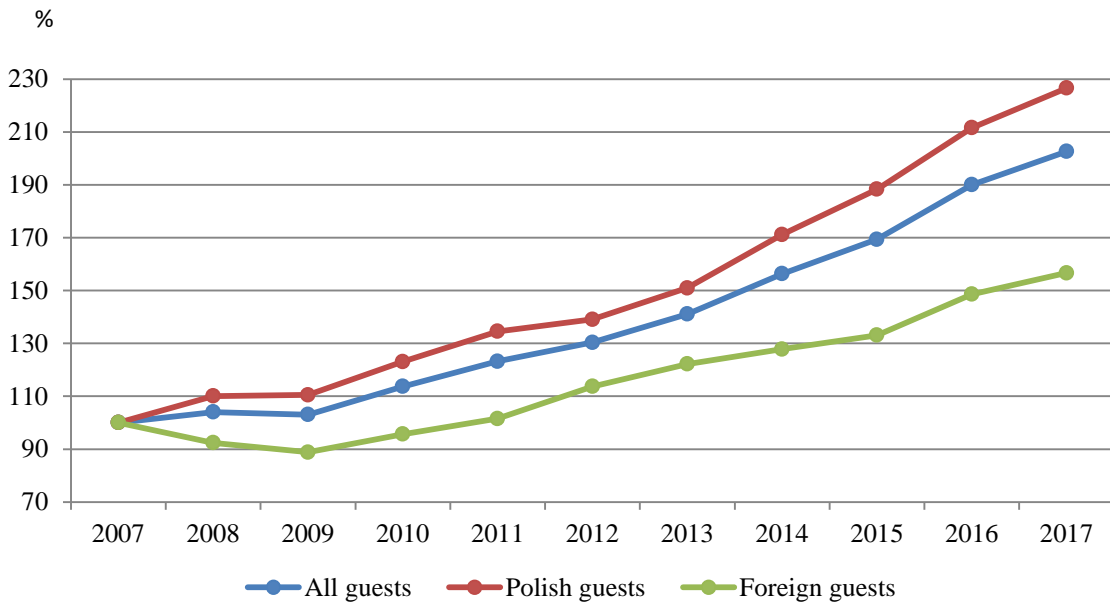
Source: Own study based on table 3.2.

Figure 3.5. The development of the number of Polish and foreign overnight guests in Polish hotels in the years 2007-2017 for discrete sets (J_t) – values in P_t scale (%)
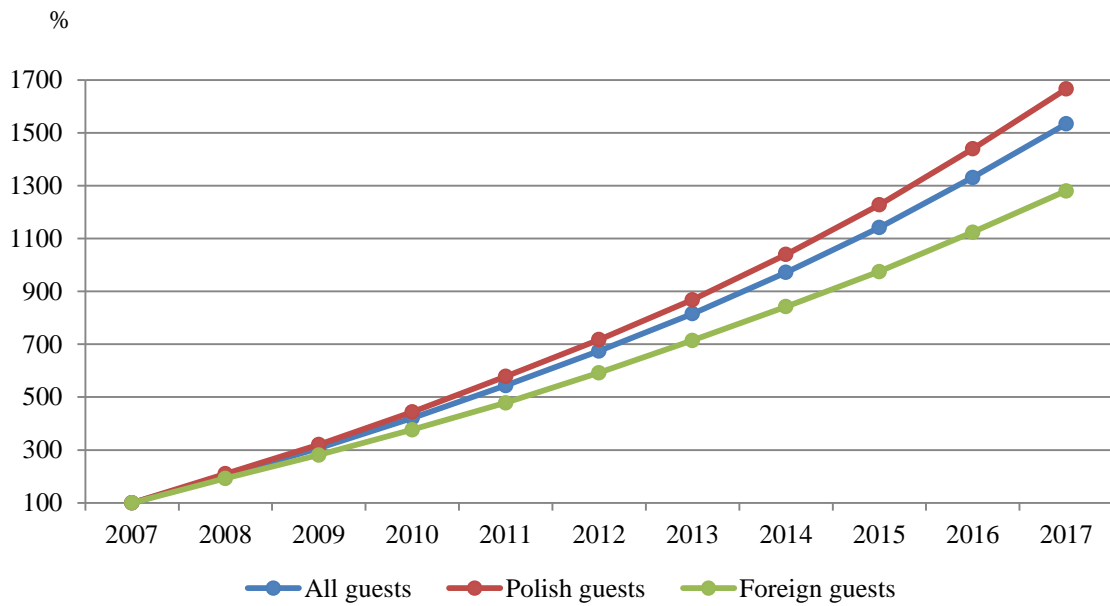
Source: Own study based on table 3.2.

Figure 3.6. The development of the number of Polish and foreign overnight guests in Polish hotels in the years 2007-2017 for continuous sets (M_t) – values in P_t scale (%)

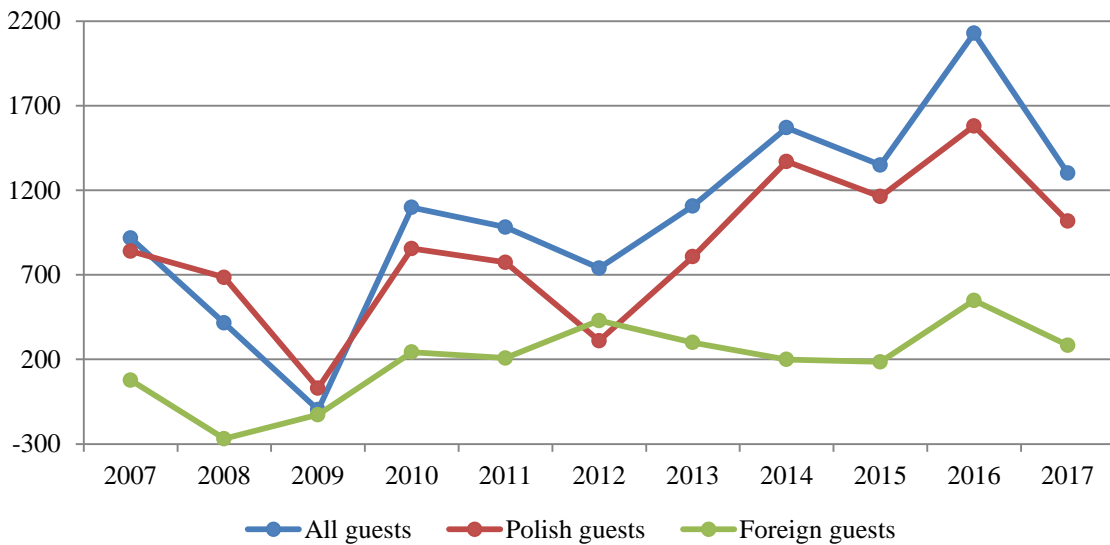Source: Own study based on table 3.2.

Figure 3.7. Velocity rate of the number of overnight guests in hotels in the years 2007-2017

Source: Own study based on data of the Central Statistical Office (2018)
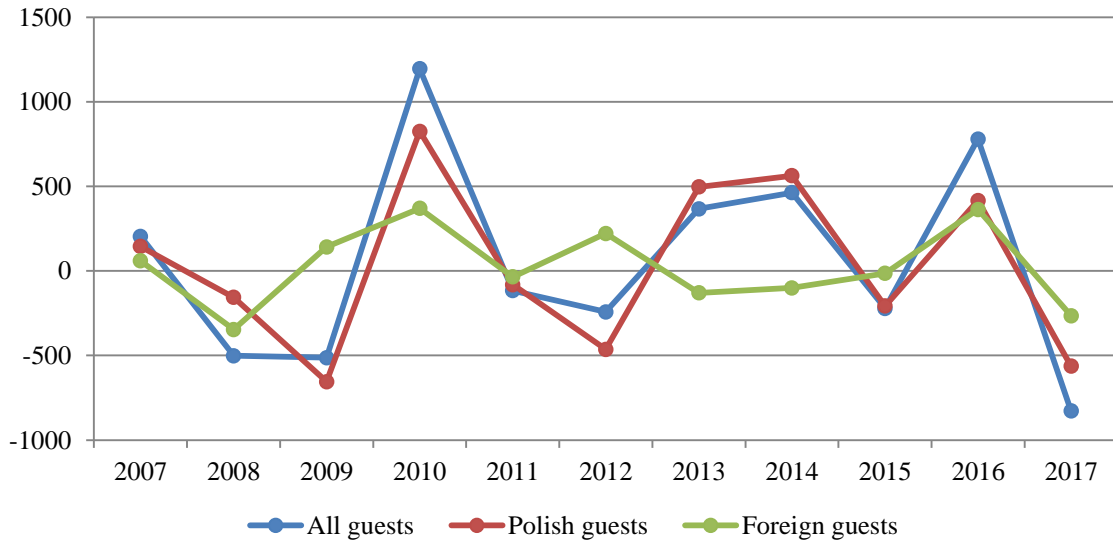
Figure 3.8. Acceleration rate of the number of overnight guests in hotels in the years 2007-2017

Source: Own study based on data of the Central Statistical Office (2018)

Figure 3.3. presents the number of domestic and foreign overnight guests in Polish hotels in the years 2007-2017. All values are given in discrete sets (J_t), in an absolute scale. Figure 3.4. presents the dynamics of change in the number of Polish and foreign overnight tourists in the same period of time. These values are also given in an absolute scale, but in M_t sets ,which are considered to be continuous. Figures 3.5. and 3.6. present the same changes in the number of domestic and foreign overnight tourists in Polish hotels in the years 2007-2017 for both discrete and continuous sets in percentages (P_t). Finally, figures 3.7. and 3.8. show respectively the velocity rates and the acceleration rates of the resident and non-resident overnight guests in Polish hotels in the years 2007-2017.

In the period from 2007 to 2017, the number of Polish and foreign overnight tourists in Polish hotels increased. For both of them, a general increase was observed ($P_K > 100\%$). In the case of Polish tourists, the velocity rate of the whole process increased from 2007 to 2017 by 21%, but it has reached its highest value in 2016 (88%). Finally in 2017, a decrease in the velocity rate was noted (38,9%), although the total number of Polish overnight tourists in Polish hotels in those years grew by 6,7% (figure 3.7.). However, in the case of foreign overnight tourists the velocity rate of the process grew gradually from 2007 – 2012, then decreased in the years 2012-2015 in 2016 it went up and finally in 2017 fell again. In the year 2012 certain hindering factors were noted (figure 3.7.).

By analyzing the velocity rates and acceleration rates of resident and non-resident overnight guests changes in Polish hotels in the years 2007-2017 one can see a big difference in the dynamics of growth between the number of foreign and Polish tourists, with the latter of the two groups exhibiting a larger dynamics. Unexpectedly, however, from 2016 to 2017 the dynamics of change in the foreign overnight tourists, expressed especially by acceleration rate, turned out to be greater than that of Polish overnight tourist, although the total number and the velocity rate of foreign overnight tourists in Polish hotels in those years was at a higher level (figures 3.7. and 3.8.).

CONCLUSION

Continuous sets, particularly when expressed in a relative (percentage) scale allows us to see the dynamics of economic processes in much better way. In the studied case, the discrete sets, converted to continuous sets clearly show the difference in the dynamics of change between the number of domestic and foreign overnight guests in Polish hotels in the years 2007-2017.

When comparing the dynamics of the processes for the discrete as well as continuous values, on an absolute and a relative scale, one can notice a general upward trend in both cases, even in spite of the drop from 2012. It can also be noticed that the dynamics of growth in the number of Polish tourists is slightly higher than that in the number of foreign tourists. This reflects the greater participation of domestic guests in the hospitality market.

The velocity rate of the number of non-resident overnight tourists change in Polish hotels grew gradually from 2007 – 2012, then decreased in the years 2012 – 2015. Then, in 2016 it rose and finally in 2017, it fell again. Some factors have been noted since 2012, which have retained the current upward trend. Observing the velocity rate, 2012 was a peak year for overnight tourists change, probably because in 2012 Poland co-organized the European Football Championship.

By analyzing the velocity rates and acceleration rates of the number of resident and non-resident overnight guests changes in Polish hotels in the years 2007-2017 one can see a big difference in the dynamics of growth between the number of foreign and Polish tourists, with the latter of the two groups exhibiting a larger dynamics.

In 2017 the dynamics of changes in the number of foreign overnight guests, expressed especially by acceleration rate, turned out to be greater than that of Polish overnight guests, although both the total number of foreign guests and the velocity rate of domestic overnight tourists in Polish hotels in those years were at a higher level. This trend is likely to continue in the coming years, as Poland becomes an increasingly attractive destination in Central Europe.

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