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HIGHER SCHOOLS VS. CITIES' SOCIAL CAPITAL IN THE LIGHT OF THEORY OF CONTACTS ŚWIĘTOKRZYSKIE VOIVODESHIP CASE

Abstract: Systemic transformation process in Poland has led to a dynamic development of higher schools. Those higher schools generate new, both formal and informal, connections triggered by people working there, especially by those at higher positions. This situation leads to the creation of relation networks. Thanks to them one can get, process and transfer information, enlarge the owned knowledge which is necessary to raise the productivity of own activities. In compliance with the theory of contacts it should lead to social capital growth which stimulates development of the analysed areas. The objective of this paper is to characterise and compare contacts of rectors and deputy rectors of state and private higher schools in Świętokrzyskie Voivodeship as well as to evaluate on this basis the part of social capital which develops thanks to formal contacts kept by the researched with people who are at a similar position in other institutions.

Key words: theory of contacts, social capital, rectors, state and higher schools

1. INTRODUCTION

Systemic transformation which started in 1989 resulted in many political, social and economic changes. Rules and mechanisms of development of cities and rural areas have been changing dynamically. New phenomena caused by changes of ownership system, restitution of market rules and reduction of welfare functions of the state started to emerge in economic and social sphere. Also spheres of education and science were involved in transformation. Act on higher education passed in 1990 allowed private sector in this field to grow. First private higher schools were established mainly in big higher schools centres, in which employees of state universities accounted for natural backup of didactic staff for newly emerging schools. This process was accelerated by amendments of the act on higher education of 1997, defining rules for functioning of vocational universities. There were 340 private higher schools in Poland in 2010/2011 school year, from among which only 15 are of academic character and have rights to confer Ph. D.

academic degree. There are two state universities of academic character, one school of higher vocational studies and ten private vocational universities in Świętokrzyskie Voivodeship. Their activity results in development of settlements, where they are run. In many cases higher schools start to perform not only scientific and educational but also cultural functions, as in Ostrowiec Świętokrzyski. One can observe growth of human capital and especially social capital. Newly emerging higher schools generate new formal and informal relations, caused by people working in them, particularly those employed on higher posts. It stimulates cooperation, leads to emergence of relations networks, thanks to which one can get, process and convey information, enlarge already possessed resources of knowledge necessary for raising effectiveness of one's activity. New higher schools contribute to increase in number of formal contacts between new actors in the analysed area, as well as between those already existing.

2. SOCIAL CAPITAL VS THEORY OF CONTACTS

Data searching, processing and transmitting is becoming extremely important in the 21st century. Current century is said to be an era of information and communication. Networks of personal relations, next to knowledge and abilities, are gaining in significance. In the overload of information, which is prepared and distributed in various ways by various institutions these relations are getting very important for skilful development of one's knowledge. They facilitate communication between various entities, no system is able to function well without them (Drucker 1976). Personal contacts and relations enable understanding which is considered to be a product of communication (Abramczyk 2000). It is people who join together in order to carry out common activities related to norms, customs, mutual relations and organisational solutions that is considered to be social capital (Przybyszewski 2007). Most often it is considered from functional (functions are aspects of social structure which facilitate reaching vital goals for every person), structural (capital is related with social structure and stratification) and collective action (cooperation and relations network) point of view (Bartkowski 2007). Social capital, in this last approach, is determined by infrastructure, cooperation and coordination of human behaviour.

Dynamic growth of importance of information flow in emerging relations networks in production and management processes was observed in the turn of 20th and 21st century. People managing various institutions devote time to communicate directly, by phone or electronically with their subordinates, superiors and people of equal rank in other institutions. Depending on level of management type of information is various. The lower level, the information is more detailed, routine. On the higher levels of management information is less detailed and concerns, for example, resolving various problems requiring deeper analysis (Michalik 2005).

Communication process is becoming necessary in planning, organising, managing and controlling. Gorzelak, Smętkowski (2005) observe that information is nowadays mounting up to the rank of another factor of production next to land, capital and labour. Competitiveness of enterprises and efficiency of territorial systems depend on creation of new knowledge, access to information and its processing. Information became both a carrier and subject to innovation.

Pred has noticed the meaning of communication, and especially information flow (1966), formulating the theory of contacts. Nowadays it is still not becoming out-of-date, on the contrary, it explains many currently occurring processes. According to this theory it is not localisation of industrial or service activity in the regions that influences their development, but localisation of these activities which are contact-intense (Sokołowski 2006). Information flow during direct contacts influences spatial structure of human activity organisation. Fast development of technology, especially communicational technology, leads to destruction of the structures which have been created in lengthy process. Hierarchical structures transform into horizontal networks, resulting in decentralisation (Stryjakiewicz 1999). Information flow is becoming intangible expression of this. It creates networks which account for set of relations between actors, that is people representing various institutions, not only economic ones, but also, for example, governmental and local administration as well as scientific institutions. Concentration of contact activities in some places, which can be regarded as raising level of social capital, is considered to be one of important factors leading to development of regions.

3. OBJECTIVES OF THE PAPER

The objective of this elaboration is to compare and contrast formal contacts of rectors and deputy rectors of higher state and private schools in Świętokrzyskie Voivodeship and evaluation, on this basis, this part of social capital, which develops thanks to the contacts maintained with the people on similar posts in other institutions.

Answers for the following questions were sought:

- Rectors of which schools: state or private generate more contacts?
- Employees of which institutions do rectors of higher schools establish contacts with?
- Which issues are most often subjects of contacts of higher state schools rectors and which of private school rectors?
- What is frequency and accessibility of the possessed contacts?
- Which of the methods of establishing contacts are most often applied?
- What is the range of contacts of the surveyed people?

4. METHODS

In order to identify and analyse relations and structures emerging thanks to the formal contacts of the people, resulting from existence of higher schools in Świętokrzyskie Voivodeship, actors most important for them, that is rectors and deputy rectors were selected. Interviews and enquiries were conducted among them. The questionnaire consisted of open-ended and close-ended questions. Open-ended questions concerned range of the contacts (name of the locality, in which the institution is located with an employee of which a contact was established) and their subjects. Whereas closed-ended questions concerned frequency, ways of establishing them and their accessibility (these which were possible to get almost instantly, without previous appointments were considered fully accessible, while these which required previous appointments were considered little accessible). Respondents took into considerations only the contacts induced by themselves with people working at the same or higher level of hierarchy in other institutions. Contacts of a routine character, established every day to resolve problems of lesser importance, were dissembled. They considered only contacts of formal character, disregarding private ones. A group of people selected by the means of purposive sampling was involved in the enquiry. Questionnaires were sent to all – 28 rectors and deputy rectors in Świętokrzyskie Voivodeship. 18 answers were received. In six cases the questionnaire was filled out through interview. State university is represented by rectors of Jan Kochanowski University of Humanities and Sciences in Kielce (UJK), whereas private high schools by rectors of Wyższa Szkoła Ekonomii i Prawa in Kielce (Higher School of Economics and Law – WSEiP), Wyższa Szkoła Biznesu i Przedsiębiorczości in Ostrowiec Świętokrzyski (Higher School of Business and Enterprise – WSB), Boleslaw Markowski Higher School of Commerce in Kielce (Official name) (WSH), Wyższa Szkoła Administracji Publicznej in Kielce (Higher School of Public Administration – WSAP), Wyższa Szkoła Humanistyczno-Przyrodnicza w Sandomierzu (Higher School of Humanities and Sciences – WSHP). Each school is represented by one to four rectors and deputy rectors. Taking this type of measure causes much inconvenience due to the subject of the measure – social phenomena – and the surveyed people – always working, having no free time for any kind of additional activities unrelated with their profession. One should note that declared number of the established contacts depends on a particular respondent. Not always were they able to recall all the formal contacts established recently. Also classification of the contacts into appropriate subject caused much inconvenience. These limitations result in necessity for cautious interpretation of the results.

5. RESULTS OF THE RESEARCH

The authorities of UJK generated the biggest number of formal contacts, and, as a consequence, bigger social potential in this matter from among all

the analysed universities. 88 institutions, employees of which contacts were established with were mentioned there. WSHP in Sandomierz is characterised by the lowest potential. Only 12 institutions were mentioned there. One can observe that social potential generated by formal contacts of rectors is much higher in a big state university than in the analysed private higher schools, although even between them occur strong diversity (Table 1).

Table 1. Number of institutions of which workers at highest positions have established contacts with rectors

Higher School	Number of institutions by the subjects of the established contacts								
	Financial	Juridical	Advising	Negotiating	Scientific	Gathering and processing information	Planning	Advertisement	Total
Jan Kochanowski University	12	6	11	10	23	11	7	8	88
WSEiP	2	6	1	-	20	8	13	3	53
WSB	1	1	1	-	19	-	1	1	24
Bolesław Markowski Higher School of Commerce in Kielce	5	1	1	-	8	1	-	6	22
WSAP	3	2	2	-	11	-	3	1	22
WSHP	2	1	1	-	6	1	-	1	12
Total	25 (12%)	17 (7,5%)	17 (7,5%)	10 (4,5%)	87 (39%)	21 (9,5%)	24 (11%)	20 (9%)	221 (100%)

Source: Ownelaboration.

One can observe a wide variety of institutions, employees of which contacts were established with (Table 2). In case of contacts in the filed of finance, among private high schools' rectors dominate employees of banks. Also contacts with foundations were noted, where financial support for various projects were sought. UJK rectors, besides employees of banks, in financial matters established contacts also with employees of many other institutions, with which they cooperate and usually solicit support for scientific and educational activities (Table 2).

Differences between authorities of state and private high schools occur also in case of legal subjects. When it comes to the first group, these are people who represent such institutions as Rada Główna Szkolnictwa Wyższego (The Main Board of Higher Education – representative body of higher

education system in Poland), Bureau for Academic Recognition and International Exchange, Ministry of Science and Higher Education. Whereas in the second group – people representing chancelleries, courts and public prosecutor's offices (Table 2).

Also companies generating contacts in consultative subject are diverse. In case of state higher schools, there are a lot more of them than in case of private higher schools. One can observe that contacts in consultative subject are marginal in their case (Table 2).

Subjects related to negotiations generate only contacts of UJK rector authorities. It happens due to a great number of investments conducted at the moment by the university (Table 2). In the private higher schools negotiations are led mainly by the chancellors who have not been involved in the research (people who are in charge of school's administration), which can be another cause of this disproportion.

Rectors listed the biggest number of people representing various institutions while describing their scientific contacts. They are very similar in both types of the analysed higher schools (Table 2).

Institutions generating rectors' contacts related to data collection and processing are similar as well. Both the rectors of UJK and those of private schools pointed to job agencies in the first place (Table 2).

Many institutions, employees of which contacts were established with, were mentioned in both groups of the analysed schools. These were usually institutions with which the analysed schools would organize common educational and scientific events, such as internships for students. Thus – their wide variety (Table 2).

Small disproportion may be found in number of institutions, employees of which contacts in the field of marketing were established with (Table 2).

Questionnaire analysis allowed to state that it is scientific subjects (39%) that generate the biggest number of rectors' contacts, despite their administrative responsibilities (Table 2). Distribution was similar in the both analysed groups.

According to the theory of contacts, not only the number of contacts but also their frequency and accessibility is significant for development of relations network and its durability. Analysis of frequency of the contacts reveals that the frequency is higher in case of rectors of the private higher schools. In 56% of the cases contacts take place a few times per year, in 31% at least once a month. For rector authorities of UJK this is respectively 50% and 18%. Subject related to marketing is characterized by the highest frequency of the contacts established by the rectors of private higher schools whereas consultative subject – by the lowest. In case of the rectors of UJK – contacts related to finance and negotiation were the most frequent. It is interesting that the rectors of the private schools established contacts more frequently than their counterparts from UJK (Table 3).

Table 2. Institutions generating contacts with rectors by subjects

Subject of contacts	Jan Kochanowski University of Humanities and Science Rector	Private higher schools rectors
Financial	<p>Ministry of Science and Higher Education – Warsaw Ministry of National Education - Warsaw Polish Agency for Enterprise Development – Warsaw Kielce Technology Park – Kielce Regionalne Centrum Naukowo Technologiczne – Kielce (Regional Science and Technology Centre – Kielce) Voivodeship Office – Kielce City Office – Kielce Construction Company Mixex PLC – Kielce Bank Gospodarstwa Krajowego – Kielce Ministry of Regional Development – Warsaw Construction Company Skanska – Kielce</p>	<p>Deutsche Bank PPC – Kielce Bank PKO S.A. – Kielce Bank Milenium – Kielce Bank PKO BP – Kielce Bank Spółdzielczy – Kielce Hestia Insurance Company – Kielce The Foundation in Support of Local Democracy- Warsaw Fundacja Współpracy Polsko-Niemieckiej – Warszawa (Foundation of Polish and German Cooperation – Warsaw) The Polish-American Community Assistance Fund – Warsaw</p>
Juridical	<p>Ministry of Regional Development – Warsaw Ministry of Science and Higher Education – Warsaw Marshal's Office – Kielce Bureau for Academic Recognition and International Exchange – Kielce Polish Patent Office – Warsaw Rada Główna Szkolnictwa Wyzszego – Warsaw (Main Board of Higher Education)</p>	<p>Regional Prosecutor's Office – Kielce Wojewódzki Sąd Administracyjny – Kielce (Voivodeship Administrative Court) Kielce Sąd Okręgowy – Kielce (District Court – Kielce) District Bar Council – Kielce District Chamber of Legal Advisors – Kielce Office of Legal Council – Kielce Faculty of Law and Administration of Jagiellonian University – Cracow Faculty of Law of Maria Curie-Skłodowska University – Lublin</p>
Advising	<p>Ministry of Science and Higher Education – Warsaw Polish Agency for Enterprise Development – Warsaw Regional Centre for Innovation and Technology Transfer Ltd – Kielce Office for Economic Policy and Regional Development – Kielce Polish Rectors Foundation Conference of Rectors of Academic Schools in Poland Konferencja Rektorów Uczelni Pedagogicznych (Conference of Rectors of Pedagogical Universities) The Old Polish Chamber of Industry and Commerce – Kielce Świętokrzyskie Biuro Rozwoju Regionalnego – Kielce (Świętokrzyskie Regional Development Agency) – Kielce Kielceki Inkubator Technologiczny – Kielce (Kielce Technology Incubator) – Kielce Rada Główna Szkolnictwa Wyzszego – Warsaw (Council of Higher Education)</p>	<p>Stowarzyszenie Zdrowego Zarządzania Prawami Autorskimi Twórców Dziel Naukowych i Technicznych (KOPIPOL) – Kielce (Association of Healthy Management of Scientific and Technology Works Authors Copyrights – Kielce) Warsaw School of Economics- Warsaw The Foundation in Support of Local Democracy- Warsaw</p>

Subject of contacts	Jan Kochanowski University of Humanities and Science Rector	Private higher schools rectors
Negotiating	<p>Ministry of Science and Higher Education – Warsaw Ministry of National Education- Warsaw Marshal's Office – Kielce Świętokrzyskie Biuro Rozwoju Regionalnego – Kielce (Świętokrzyskie Regional Development Agency) – Kielce Producing Company Formaster – Kielce Jednostka Innowacyjno-Wdrożeniowa Inwex – Kielce (Implementing and Innovative Unit Inwex) – Kielce Office for Economic Policy and Regional Development -Kielce Kolporter PLC – Kielce City Office – Kielce Ministry of Regional Development – Warsaw</p>	
Scientific	<p>Stockholm University – Stockholm Salesian Pontifical University – Rome Russian Academy of Sciences – Moscow Lithuanian Academy of Sciences – Vilnius Ukrainian National University – Luhansk Kielce University of Technology Oncology Centre – Kielce Jednostka Innowacyjno-Wdrożeniowa Inwex – Kielce (Implementing and Innovative Unit Inwex) – Kielce Jagiellonian University – Cracow Regionalne Centrum Naukowo-Technologiczne – Kielce (Regional Science and Technology Centre – Kielce) Oncology Centre – Warsaw Polish Academy of Sciences – Warsaw Pedagogical University of Cracow Uniwersytet Humanistyczny – Przyrodniczy – Siedlce Jan Długosz University in Czeszochowa Akademia Pomorska – Słupsk Kieleckie Towarzystwo Naukowe – Kielce (Scientific Society Kielce)</p>	<p>Nebrija University – Madrid Commercial College Prague Hogskolen Telemark – Telemark Wyższa Szkoła Zarządzania Personelem – Lviv (Personnel Management College – Lviv) Prywatna Wyższa Szkoła Studiów Ekonomicznych – Praga (Private Economic Studies College – Prague) Hohschule Mittweida – Mittweida University of Economics in Bratislava Klaipeda Business and Technology College – Klaipeda Copenhagen Business School EIPPOS – Drezden Warsaw School of Economics – Warsaw Warsaw University of Life Sciences – Warsaw Jagiellonian University – Cracow Cracow University of Economics – Cracow University of Warsaw – Warsaw Jan Kochanowski University of Humanities and Science in Kielce Maria Curie-Skłodowska University – Lublin</p>

Subject of contacts	Jan Kochanowski University of Humanities and Science Rector	Private higher schools rectors
Gathering and processing information	<p>County Employment Office – Kielce County Employment Office – Skarżysko-Kamienna City Employment Office – Kielce Ministry of Science and Higher Education – Warsaw Polish Rectors Foundation Rada Główna Szkolnictwa Wyzszego – Warsaw (The Main Board of Higher Education) Conference of Rectors of Academic Schools in Poland- Warsaw Konferencja Rektorów Uczelni Pedagogicznych – Cracow (Conference of Rectors of Pedagogical Universities)</p>	<p>County Employment Office – Kielce City Employment Office – Kielce Word IXI Polska PLC – Warsaw Central Statistical Office – Warsaw Voivodeship Statistical Office – Kielce Office for Economic Policy and Regional Development EPRD – Kielce Regional Centre for Innovation and Technology Transfer Ltd – Kielce</p>
Planning	<p>Ministry of Science and Higher Education – Warsaw Polish Agency for Enterprise Development – Warsaw Marshal's Office -Kielce Kielce Technology Park – Kielce Regionalne Centrum Naukowo-Technologiczne – Kielce (Regional Science and Technology Centre – Kielce) Kielecki Inkubator Technologiczny – Kielce (Kielce Technology Incubator) – Kielce The Old Polish Chamber of Industry and Commerce – Kielce Regional Centre for Innovation and Technology Transfer Ltd – Kielce</p>	<p>Voivodeship District Hospital – Kielce Świętokrzyskie Centrum Ratownictwa Medycznego i Transportu Sanitarnego – Kielce (Centre of Medical Rescue and Sanitary Transport of Świętokrzyskie Voivodeship – Kielce) Świętokrzyskie Centrum Rehabilitacyjne – Kielce (Centre of rehabilitation of Świętokrzyskie Voivodeship) AQUIS Pelekas Beach Hotel – Greece Rajackie Teplice – Slovakia The Foundation in Support of Local Democracy- Warsaw The Network of Institutes and Schools of Public Administration in Central and Eastern Europe – Bratislava European Network of Training Organisations for Local and Regional Authorities – Strasbourg</p>
Advertising	<p>Polish Television – Kielce Polish Radio – Kielce Local Newspaper <i>Echo Dnia</i> – Kielce <i>Gazeta Wyborcza</i> – local edition – Kielce Sports Club <i>Vive Targi</i> – Kielce Sports Club <i>Korona</i> – Kielce Unitex Publishing – Kielce City Office – Kielce</p>	<p>Polish Television – Kielce Local Newspaper <i>Echo Dnia</i> – Kielce <i>Gazeta Wyborcza</i> – local edition – Kielce Local press – Ostrowiec Świętokrzyski, Staszów, Starachowice, Szydłowiec, Pińczów, Końskie, Skarżysko – Kamienna, Włoszczowa, Sandomierz, Kazimierza Wielka</p>

Source: Own elaboration.

Table 3. Frequency of rectors' contacts by subjects

Subject of contacts	Frequency of contacts (%)							
	occasionally		few times a year		at least once a month		at least once a week	
	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools
Financial	38	34	19	22	43	44	-	-
Juridical	57	11	43	67	-	22	-	-
Advising	17	33	83	67	-	-	-	-
Negotiating	-	-	100	-	-	-	-	-
Scientific	35	19	38	72	27	9	-	-
Gathering and processing the information	100	-	-	90	-	10		
Planning	44	12	56	81	-	7	-	-
Advertising	36	-	45	6	19	94	-	-
Average value for all subjects	32	13	50	56	18	31	-	-

Source: Own elaboration.

Taking into account the accessibility of contacts, it is, like in case of frequency, wider for private higher schools rectors (Table 4). As much as 72% of contacts were considered stable, possible to obtain at any moment. 55% of contacts were considered constant by rector authorities of state higher schools. Situation is reversed only in case of scientific matters and related to gathering and processing information (Table 4).

According to theory of contacts personal contact (face to face) is considered the most important in creating relations network. In the analysed case, the most frequent connections are established via telephone. It is particularly visible in case of state academies' authorities. Contacts via Internet are established less often. In comparison with private academies' rectors this contact is less commonly exploited by UJK rectors. Personal contact is the most important in case of advertisement, planning and science for UJK rectors and juridical matters for private higher schools rectors (Table 5).

Analysing contacts' range one can observe that it is mainly restricted to voivodship area. As much as 55% of both UJK rectors' and higher schools recotors' connections are made in this area. Connections created outside the

Table 4. Accessibility of rectors' contacts by subjects

Subject of contacts	Accessibility of contacts (%)			
	Constant		Inconstant	
	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools
Financial	37	86	63	14
Juridical	14	33	86	67
Advising	58	100	42	-
Negotiating	40	-	60	-
Scientific	85	79	15	21
Gathering and processing the information	55	-	45	100
Planning	45	84	55	16
Advertising	64	100	36	-
Average value for all subjects	55	72	45	38

Source: Own elaboration.

Table 5. The way of creating the contacts by rectors by subjects

Subject of contacts	The way of creating the contacts (%)					
	Personal		Internet		Telephone	
	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools	Jan Kochanowski University	private high schools
Financial	39	35	-	20	61	45
Juridical	36	45	27	20	37	35
Advising	38	37	24	26	38	37
Negotiating	28	-	31	-	41	-
Scientific	44	34	23	31	33	35
Gathering and processing the information	17	28	15	44	68	28
Planning	44	32	-	34	56	34
Advertising	53	36	-	36	47	28
Average value for all subjects	39	34	17	31	44	35

Source: Own elaboration.

voivodship account for 38% of analysed contacts of UJK rectors, whereas 24% for private higher schools rectors. Contacts reaching beyond country borders accounted for 7% in case of UJK rectors and as much as 21% in case of private higher schools rectors. The range of contacts depends on their subjects (Figures 2-9). Financial matters (Figure 2) reveal a similar range of contacts in both analysed groups of respondents. Analysing the range of contacts considering juridical subjects one can observe that it differs between private and state higher schools' rectors (Figure 3). In case of UJK rectors the range is wider, nationwide, for private higher schools' rectors it is primarily limited to city in which the school is functioning. Although the number of institutions and cities in which they are situated is much bigger in case of UJK rectors, advising subjects (Figure 4) generate contacts with a similar range. It is difficult to compare the range of contacts considering the negotiating subjects (Figure 5) as in private higher schools this type of contacts is mainly created by chancellors who were not taken into consideration in this research. The widest range characterise contacts considering scientific subjects (Figure 6). UJK rectors as well as higher schools' rectors have revealed in the questioners numerous scientific institutions, both polish and foreign, with workers of which rectors have created contacts. Taking subjects considering collecting and processing information into consideration, their range is similar in both analysed groups of people (Figure 7.). The case is different with subjects considering planning (Figure 8). Private higher schools' rectors generated wider-range contacts. Subjects considering advertisements generate contacts with the most narrow range, in case of UJK rectors it is limited only to city, in which the higher school is functioning, and in case of private academies' rectors to voivodeship area (Figure 9).

6. SUMMARY

The subjects that generated the biggest number of contacts among people researched in both analysed types of schools were scientific ones. Both the structure of subjects generating contacts as well as their range are similar. In majority of subjects the range is limited to voivodeship area. It exceeds the country borders in case of scientific contacts mostly.

One can observe a very wide diversity of institutions generating the contacts of people researched. They are, mainly, different for state and private higher schools.

Among the analysed activities of higher schools' rectors the bigger social potential, which results from number of formal contacts' generated, characterises the activities of rectors authorities of state academies. According to theory of contacts these activities should, thanks to the bigger participation in generating the information flow in created relation networks, be more significant for the development of the analysed area than the activities of private higher schools' rectors.

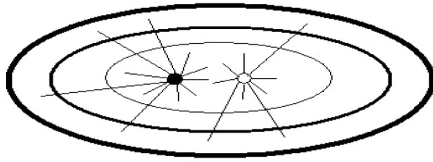


Figure 2. The range of rectors' contacts concerning financial subjects
Source: Own elaboration

Key to figures 2-9
The range of contacts

- border of the city in which higher school is located
- border of the voivodship
- border of the country (Jan Kochanowski University)
- state higher school
- private higher school

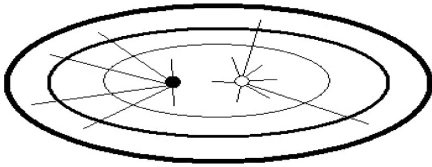


Figure 3. The range of rectors' contacts concerning juridical subject
Source: Own elaboration

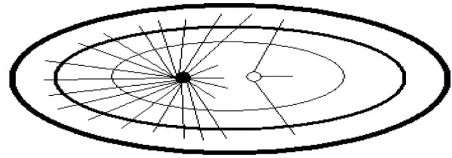


Figure 4. The range of rectors' contacts concerning advising subjects
Source: Own elaboration

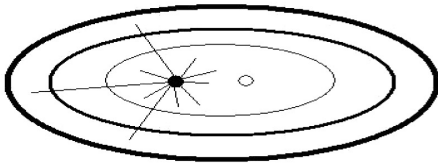


Figure 5. The range of rectors' contacts concerning negotiating subjects
Source: Own elaboration

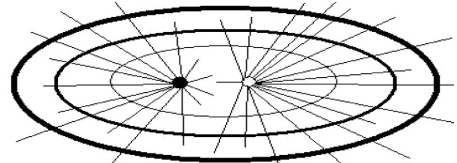


Figure 6. The range of rectors' contacts concerning scientific subjects
Source: Own elaboration

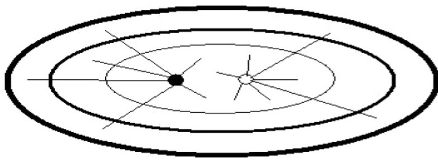


Figure 7. The range of rectors' contacts concerning gathering and processing information
Source: Own elaboration

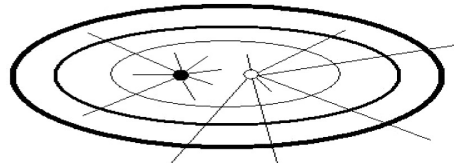


Figure 8. The range of rectors' contacts concerning planning
Source: Own elaboration

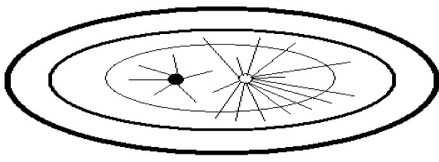


Figure 9. The range of rectors' contacts concerning advertising
Source: Own elaboration

On the other hand one can observe that functioning of private higher schools promotes creating new contacts, which lead to development of the analysed area, and wider diversity of institutions generating contacts. It also raises the frequency and availability of formal contacts. This proves that there is a possibility to raise social capital and the city rank thanks to localisation of private higher schools not only in the areas where there were no centres of higher education, but also in areas where state higher schools have already been functioning.

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