

Dzyuma, Ulyana; Rodzinka, Jacek

## Article

# Research into the financial knowledge of employees of local government units at commune level in Podkarpacie

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# RESEARCH INTO THE FINANCIAL KNOWLEDGE OF EMPLOYEES OF LOCAL GOVERNMENT UNITS AT COMMUNE LEVEL IN PODKARPACIE

*Ulyana Dzyuma<sup>1</sup>, Jacek Rodzinka<sup>2</sup>*

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## Abstract

*The aim of this article is to present the results of a study on the level of financial knowledge among staff at local public administration offices. The study was conducted using the technique of Computer Assisted Telephone Interviews (CATI) on a representative sample of commune level offices in the Podkarpackie Province. Study participants described a definite strength of financial knowledge within the work tasks that they do, however they indicated that their actual knowledge level is intermediate, and to a great degree their actions are based on general knowledge rather than specialist knowledge. The article presents a diagnosis of the level of financial knowledge among staff at local public administration offices at the commune level in the Podkarpackie, describing the most common barriers to gaining financial knowledge and preferences in the forms of learning.*

**JEL Classification:** G14, H75, H76, I22

**Keywords:** local government units, research, financial knowledge, podkarpackie region

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## Introduction<sup>3</sup>

The research on the level of financial knowledge in local government units was conducted on a representative sample of the communes of the Podkarpackie region. The population of the examined units comprised 160 communes, with 16 being municipal communes (i.e. 12 municipal communes and 4 cities with district rights: Rzeszów, Przemyśl, Krosno and Tarnobrzeg), 33 being municipal and rural communes, and the other 111 being rural communes. The research sample reflecting population structure was stratified and proportional. Each of the four strata corresponded to the given type category of the communes. The number of units in the sample was chosen in such a way that the percentage of each type category of the examined communes corresponded to the percentage of the communes in the population structure made up of municipal communes, municipal and rural communes, rural communes, and cities with district rights.

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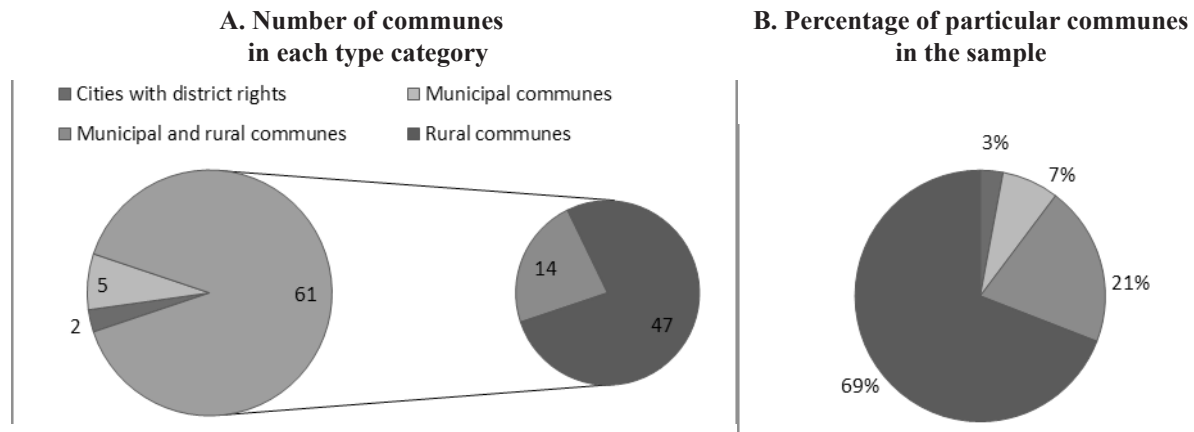
<sup>1</sup> Ulyana Dzyuma MS, assistant in Institute for Financial Research and Analyses, University of Information Technology and Management in Rzeszów, ul. Sucharskiego 2, 35-225 Rzeszów, [udzyuma@ibaf.edu.pl](mailto:udzyuma@ibaf.edu.pl).

<sup>2</sup> Jacek Rodzinka PhD, assistant professor in Chair of Macroeconomics, University of Information Technology and Management in Rzeszów, Head of the Consulting section of the Social and Economic Research and Analyses on Clustering, University of Information Technology and Management, ul. Sucharskiego 2, 35-225 Rzeszów, [jrodzinka@wsiz.rzeszow.pl](mailto:jrodzinka@wsiz.rzeszow.pl).

<sup>3</sup> The research methodology is based on following publications: Aczel, A. D. (2000). *Statystyka w zarządzaniu: pełny wykład*. Warszawa: Wydawnictwo Naukowe PWN; Błuszkowski, J., Garlicki, J. (1991). *Metody badań marketingowych*. Warszawa: Międzynarodowa Szkoła Menedżerów.

In the thus determined strata, independent samplings were conducted as samplings without replacement. The obtained sample consisted of 68 communes in Podkarpatie, and included 7 municipal communes (including 2 cities with district rights), 14 municipal and rural communes and 47 rural communes. The distribution of the sample is shown graphically in Chart 1, presenting the percentage of communes in each type category.

**Chart 1: Research sample structure**



Source: Own study

Each of the seven selected municipal communes was located in a different district, and in various parts of the region. The thus selected sample ensured a more cross-sectional view of the research in territorial terms. Among the selected LGUs, there was one municipal commune selected for each of the districts of Dębica, Jarosław, Jasło, Leżajsk, Przemysł, Stalowa Wola and Tarnobrzeg. Among the municipal and rural communes, two units were selected in each of the districts of: Krosno, Lubaczów, Rzeszów and Tarnobrzeg. The communes located in the said districts made up a total of 57.15% of all municipal and rural communes in the whole sample. The other part of the sample, consisting of communes of the same type, was divided evenly (i.e. 7.14% each) among the districts of Bieszczady, Jasło, Lesko, Nisko, Ropczyce and Sędziszów, and Sanok. The last and also the most numerous category consisted of rural communes, and their number made up 69.12% of all the examined LGUs at the communal level. As concerns the number of rural communes selected for the analysis, the Przemysł district dominated, with 6 such communes (i.e. 12.77% of all the units selected for research). Successive places in the ranking were taken by the districts of Jarosław, Jasło, Kolbuszowa, Przeworsk, Rzeszów, Sanok and Strzyżów with 3 communes each (6.38%), then the districts of Dębica, Krosno, Lesko, Lubaczów, Łańcut, Mielec and Nisko with 2 communes each (4.26%). The pool of rural communes selected for the research was closed by units located in the Bieszczady and Brzozów districts, with one unit chosen in each (2.13%). As concerns the number of all communes included in the research sample, the Przemysł district dominated again (7 communes selected). Further places are taken by the Jasło and Rzeszów districts (5 communes each) and the districts of Jarosław, Krosno, Lubaczów and Sanok (4 communes each). In each of the following districts: Dębica, Kolbuszowa, Lesko, Nisko, Przeworsk, Ropczyce and Sędziszów, Stalowa Wola, Strzyżów and Tarnobrzeg, 3 communes were selected. Finally, in the Bieszczady, Łańcut and Mielec districts 2 units were selected (in each district) for the research, and one unit in both the Leżajsk and the Brzozów districts. Table 1 presents the district distribution of the selected LGUs included in the research sample.

**Table 1: Communes included in the research sample by districts**

District	Municipal communes		Municipal and rural communes		Rural communes		Sum of the selected communes by districts
	Number of communes	Commune percentage (%)	Number of communes	Commune percentage (%)	Number of communes	Commune percentage (%)	
Bieszczady	0	0.00	1	7.14	1	2.13	2
Brzozów	0	0.00	0	0.00	1	2.13	1
Dębica	1	14.29	0	0.00	2	4.26	3
Jarosław	1	14.29	0	0.00	3	6.38	4
Jasło	1	14.29	1	7.14	3	6.38	5
Kolbuszowa	0	0.00	0	0.00	3	6.38	3
Krosno	0	0.00	2	14.29	2	4.26	4
Lesko	0	0.00	1	7.14	2	4.26	3
Leżajsk	1	14.29	0	0.00	0	0.00	1
Lubaczów	0	0.00	2	14.29	2	4.26	4
Łańcut	0	0.00	0	0.00	2	4.26	2
Mielec	0	0.00	0	0.00	2	4.26	2
Nisko	0	0.00	1	7.14	2	4.26	3
Przemyśl	1	14.29	0	0.00	6	12.77	7
Przeworsk	0	0.00	0	0.00	3	6.38	3
Ropczyce-Sędziszów	0	0.00	1	7.14	2	4.26	3
Rzeszów	0	0.00	2	14.29	3	6.38	5
Sanok	0	0.00	1	7.14	3	6.38	4
Stalowa Wola	1	14.29	0	0.00	2	4.26	3
Strzyżów	0	0.00	0	0.00	3	6.38	3
Tarnobrzeg	1	14.29	2	14.29	0	0.00	3
<b>In total</b>	<b>7</b>	<b>100.00</b>	<b>14</b>	<b>100.00</b>	<b>47</b>	<b>100.00</b>	<b>68</b>

Source: Own study

The researchers used a survey questionnaire comprising 10 questions, both closed and half-open ones, allowing to assess the level of financial knowledge of people working in local government units. The research was done using the Computer Assisted Telephone Interviews (CATI) technique. The method used in the research combines a traditional questionnaire survey via the phone with computer management of the sample choice and interview course. As compared to face-to-face interviews done out in the streets, the CATI method allowed to gain a range of additional benefits, such as quick feedback, precise answers of the respondents, or obtaining answers from people having the qualifications desired for the reliability of the research results. The most important advantages of CATI include: full control of the data gathering process (making the interview), sampling control, standardising the interviewing process, easy programming of complex rotations and randomising the questions and answers in blocks<sup>4</sup>. Thanks to these factors, this choice of method must be considered appropriate, as next to the required feedback

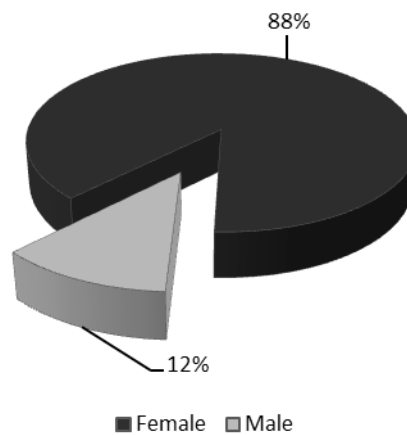
<sup>4</sup> More on this topic can be found in: Strzyżewska, M., Rószkiewicz, M. (2002). *Analizy marketingowe*. Warszawa: Di-fin; Suchecka, J. (ed.) (2003). *Metody statystyczne. Zarys teorii i zadania*. Częstochowa: Press of the Faculty of Management of Czestochowa University of Technology; Walesiak, M. (1996). *Metody analizy danych marketingowych*, Warszawa: Wydawnictwo Naukowe PWN; Welfe, A. (2003). *Ekonometria. Metody i ich zastosowanie*, Warszawa: PWE.

it also guaranteed the necessary reliability as regards the subject. The indicated premises have made the CATI method to one of the most common techniques of conducting quantitative surveys in most countries. As a result, beside the added value of diagnosing financial knowledge in the LGUs, this research also fits in an international trend as to using analytic tools and research methods, which additionally raises the significance of the obtained results.

### Description of Entities Included in the Research

As has been stated in the methodological part of this study, the research on financial knowledge in the LGUs included 68 respondents, 88.2% of whom were women, and the other 11.8% were men (cf. Chart 2).

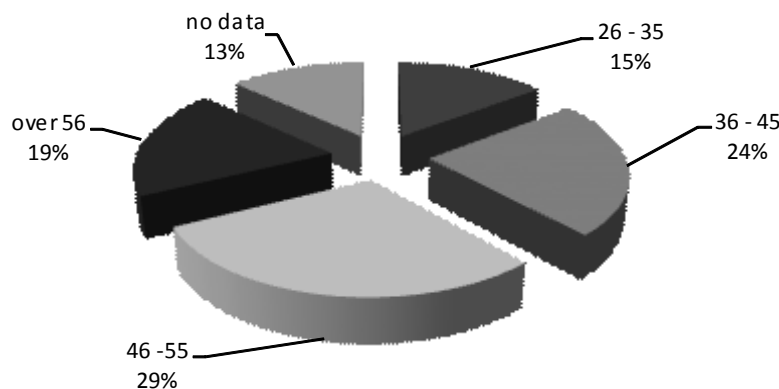
**Chart 2: Gender of respondents in the research**



*Source: Own study based on the research results*

The greatest number of respondents – 29% - were in the age group of 46-55, a slightly smaller group of 24% represented the age band of 36-45, then the band over 56 (19%), and the smallest group (15%) consisted of representatives from the age group of 26-35. 13% of respondents did not answer this question. The age distribution of research participants is shown in Chart 3.

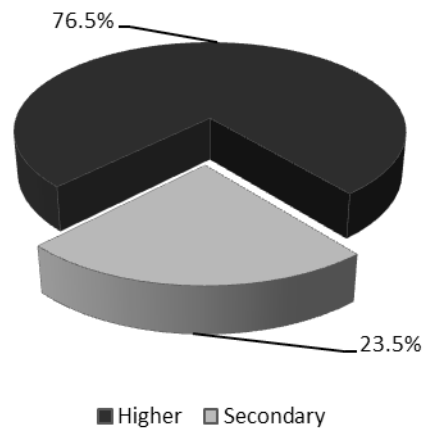
**Chart 3: Research participants by age**



*Source: Own study based on the research results*

Most of the examined people, i.e. 76.5%, had higher education. It was most often of an economic, administrative or legal character. The other 23.5% respondents were people with secondary education (cf. Chart 4).

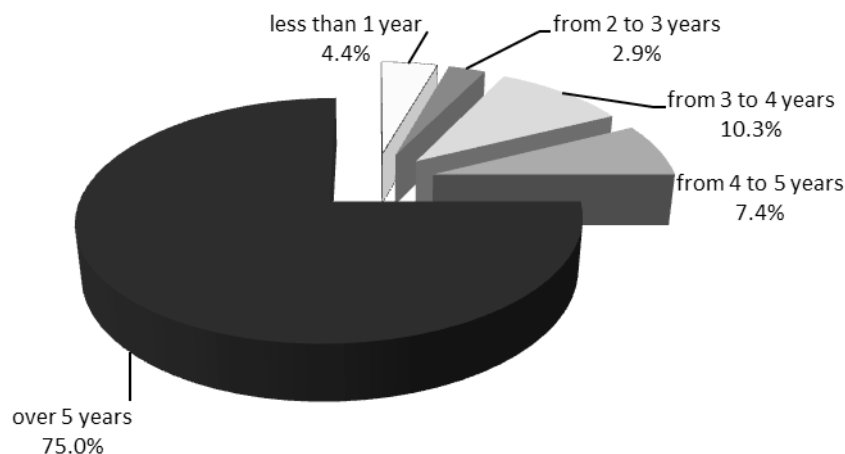
**Chart 4: Respondents' education**



*Source: Own study based on the research results*

Another feature dividing the respondents were the years of work in the local government unit, which indirectly indicate experience and competence gained during the work in LGU structures. Most of the respondents, i.e. 75%, indicated the longest suggested time of work in the units – over 5 years. 10.3% of the examined people had been performing their jobs in the units between 3 and 4 years. From 4 to 5 years was the period indicated by 7.4% of respondents, and the shortest time of working in the unit, i.e. less than one year, concerned only 4.4%. The fewest people stated their experience of working in the unit to fit between 2 and 3 years – these were 2.9% of respondents (cf. Chart 5).

**Chart 5: Number of years of work in the unit**

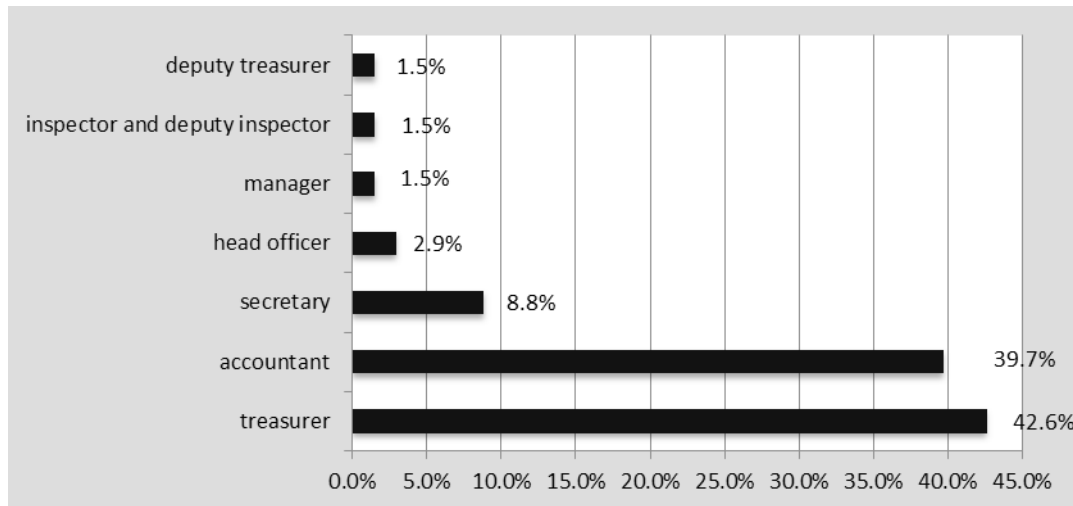


*Source: Own study based on the research results*

Due to the potential problems contacting local government structures' employees desired from the perspective of the research during the survey, it was assumed that the interviewers should first ask

people on secretarial posts for an interview, then treasurers, then department managers or directors of the tax (financial) department, and finally inspectors - employees of the financial / budget department. The overall results showing the respondents' structure are presented in Chart 6.

**Chart 6: Post**



*Source: Own study based on the research results*

Most respondent (42.6%) were working as treasurers, further 39.7% as accountants. Others were employed as: secretaries – 8.8%, and head officers of the communes – 2.9%. Only single individuals examined in the research held the posts of a manager, inspector, deputy treasurer or deputy inspector.

The obtained results show the standard structure of employment in the LGUs' financial departments. It is proved by the results of research on the organisational structure of municipal offices and district heads' (starosts') offices in the Śląskie and Małopolskie regions, conducted in the years 2008-2011. According to the results of the above mentioned research, the employment structure in typical LGUs seems to be as follows<sup>5</sup>:

1. in the offices, the vast majority of employees hold clerical – white-collar posts (60-65% together with managers),
2. the greatest total number of full-time employees among all organisational sections were found in the sections of deputy mayors and deputy starosts,
3. the definitely greatest number of managerial (52% of all managers) and clerical posts (56%), as compared to other sections, were found in the section of the mayor and starost (the second largest section with regard to the share in the total number of employees),
4. in the vast majority of units there is a relatively large share of employment in the mayor/ starost section as compared to the overall employment (30-36%).

Considering the above, it must be stated that the employment structure in local government units in the Podkarpacie communes examined in the research does not diverge from the typical structure. This means that it is possible to transpose the findings made on the sample of LGUs from the Małopolskie and Śląskie regions to the activity of the LGUs of communal level in

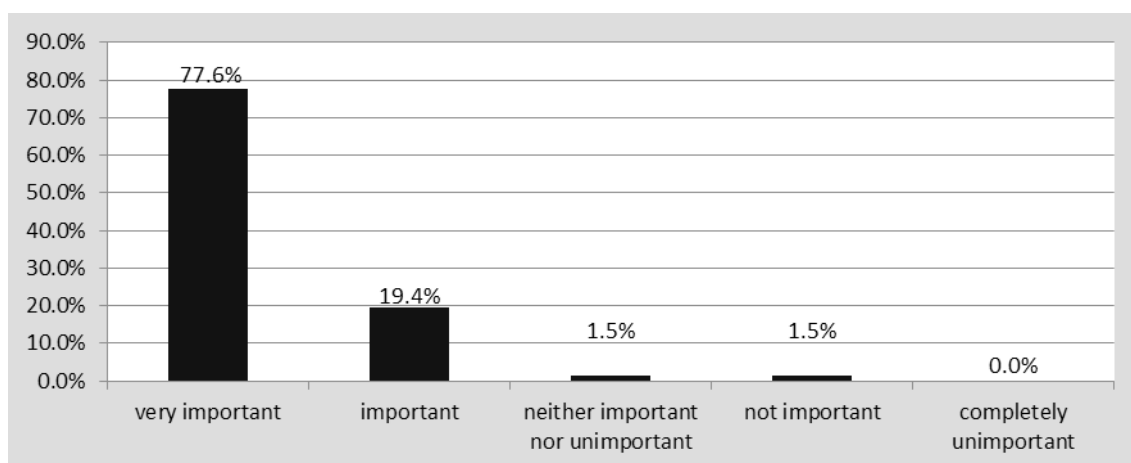
<sup>5</sup> *Badania struktury organizacyjnej urzędów miejskich i starostw powiatowych w województwie Śląskim i Małopolskim w latach 2008-2011 (Research on the organisational structure of municipal offices and starosts' offices in the Silesian and Małopolskie regions in 2008-2011)*, "INORG" Organisation Institute Sp. z o. o. in Gliwice.

Podkarpacie. In effect, identifying the configuration of organisational structures and employment structures in the examined units allows to draw certain conclusions. Firstly, particular organisational units have a high level of functional specialisation, considerably different from other units. Secondly, in the particular sections, two function groups are realised parallel, i.e. algorithmised & service functions and strategic & pro-development functions. Thirdly and finally, from the viewpoint of the number of units directly subordinated to particular section managers, worth noting is the mayors' section with its considerable fragmentation.

## Diagnosis of the Financial Knowledge of LGU Employees at Commune Level in Podkarpacie

The first question in the survey concerned the significance attached to financial knowledge by LGU employees in their work. The respondents were to evaluate the significance of financial knowledge in their professional work on a scale from 1 to 5, where 5 stood for very high significance, and 1 for very low. For most of the respondents financial knowledge was important or very important, as indicated by 95.6% of respondents – as many as 77.6% considered it very important. Only single individuals indicated low significance of the knowledge or were impartial (1.5% each). The respondents who gave negative answers argued that they did not see the need of further education in the area of finance, as they had sufficient knowledge to work on their posts. No respondent gave a very low mark to financial knowledge (cf. Chart 7).

**Chart 7: Significance of financial knowledge in the respondents' occupation**



*Source: Own study based on the research results*

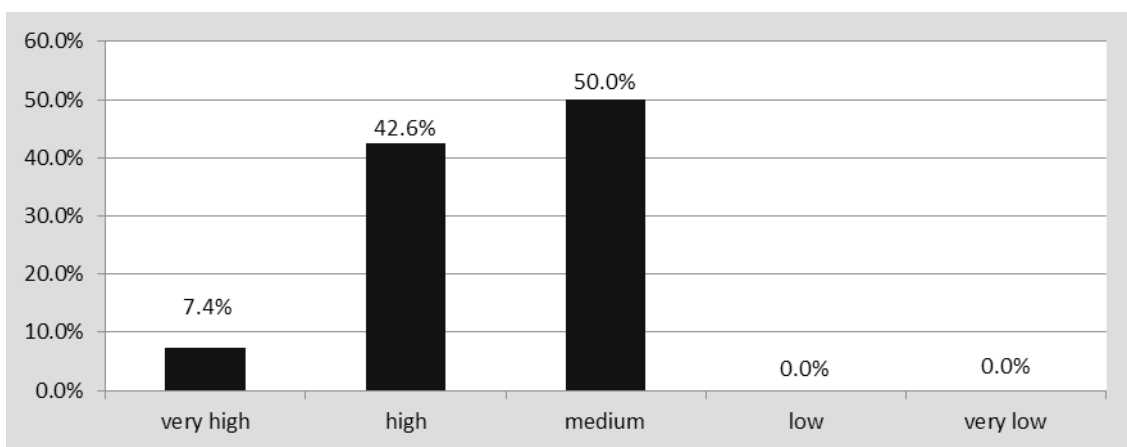
Great importance of financial knowledge was indicated slightly more often by women than by men. As concerns the age of respondents, the significance of financial knowledge is appreciated particularly by middle-aged people, i.e. in the 36-45 age group, and the oldest people – of over 56. Financial knowledge is also graded as very important by people with higher education and by people with the shortest experience of work in the unit.<sup>6</sup>

<sup>6</sup> See e.g., Wołowicz, T. (2011). Wiedza finansowa jako endogeniczne źródło potencjału JST and Wołowicz T., Edukacja finansowa a obszary zwiększenia wiedzy finansowej w strukturach samorządowych. [In:] Skica T. (ed.), *Financial knowledge in actual activity of local government units, Analytical Report*, Vol. 1, No. 2, University of Information Technology and Management in Rzeszów, p. 21-33, 43-50.



In the next question, each respondent was to define his or her own level of financial knowledge. Exactly half of the respondents claimed to have a medium level of knowledge, 42.6% a high level, and only 7.4% respondents stated that they had very high financial knowledge. Interestingly, no respondent chose the answer “low” or “very low”, which fact may actually suggest a moderate level of financial knowledge. Such a thesis is based on the fact that own conceptions of the possessed knowledge do not entirely correspond to the real financial knowledge among local government employees. When looking at the results of research presented in the theoretical part, it must be noted that the conviction of having financial knowledge is not accompanied by the knowledge of financial instruments, of possibilities of non-budgetary financing for public task performance, or of managing the disposable means in practical LGU activity. These results must thus be interpreted very carefully. The obtained results are shown in Chart 8.

**Chart 8: Level of financial knowledge of the respondents**



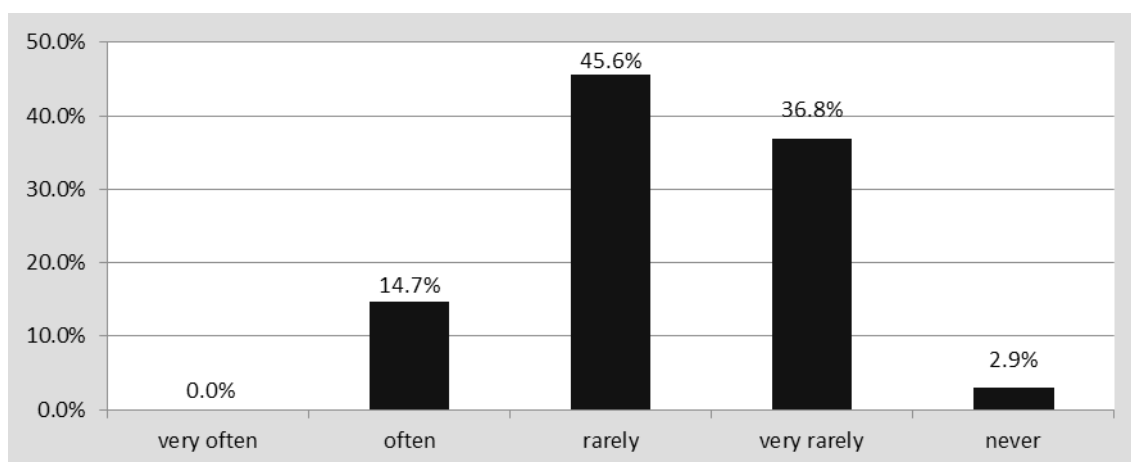
*Source: Own study based on the research results*

Men define their level of financial knowledge decidedly higher – 75% of the respondents in that group indicated having a high level of financial knowledge, and 25% of answers suggested a medium level of knowledge. The examined men chose only the two options. In the case of women, the answers were more diverse, but the fact must be noted that it was in this group of respondents that answers suggesting a very high level of financial knowledge were chosen. An analysis of the distribution of answers to this question with regard to age shows that a very high level of financial knowledge was indicated only by people from the three highest age groups. What is more, the higher the age group, the higher was also the percentage of people declaring that level of knowledge. As concerns declarations of the financial knowledge level, people with higher education came out slightly better. The answers also showed clearly that the number of years of working in the unit influenced the declared financial knowledge level. The highest level of knowledge was indicated only by people who had been working in a local government unit for over 5 years. Also, people working as accountants and deputy inspectors for payroll and social insurance declared their level of knowledge to be the highest.

The next question was aimed at examining the frequency of situations in which the respondents felt they had no or not enough financial knowledge while doing their work. The respondents had a choice of five possible answers: very rarely, rarely, often, very often and never. Over 45% of the examined employees stated that such situations occurred rarely, nearly 37% considered such cases to be very rare. Only 2.9% of respondents claimed that such situations had never occurred. The remaining 14.7% of respondents stated that such situations occurred frequently.

An analysis of the obtained results leads to believe that in local government units there work competent people who have sufficient financial knowledge to do their work, but there sometimes appear situations which require more advanced knowledge in finance. This fact, in turn, proves that the above theses were correct and the level of financial knowledge, which should be viewed as absolutely basic, is sufficient for conventional performance of public tasks, but any deviations from those conventional actions result in problems in providing the services. The distribution of answers to the above question is shown in Chart 9.

**Chart 9: Frequency of situations in which the respondents felt they lacked financial knowledge while doing their work**



*Source: Own study based on the research results*

The answer “often” (cf. Chart 9) was indicated mostly among respondents from two age groups, that is 36-45 and over 56. Interestingly, gaps in financial knowledge were reported more often by people with higher education, although it must be said that it happened also among those who did not define what kind of education they had. The longer the work experience in the unit was, the less frequently the respondents claimed to encounter situations in which they lacked financial knowledge in connection with performing their professional duties.

The obtained research results show that the length of work experience impacts the level of knowledge and professional experience. At the same time, the results indicate that LGU employees have gaps in their knowledge, also specialist knowledge, particularly as concerns new financial instruments. Considering the employment structure in the LGUs, there is a considerable diversity among local government employees as to the average number of years of work in local government units' structures.<sup>7</sup> The LGUs have both experienced employees who know the regulations of financial and budget law, and young clerks who are only starting their work in the units. On the one hand, one can see the conservative approach to modern financial management, propagated by employers with longer work experience. On the other, young local government employees have a strong theoretical foundation in the area of financial knowledge, yet it is unsupported with practical experiences.<sup>8</sup>

<sup>7</sup> See: Skica, T., Kiebała, A., Rodzinka, J., Reško, D., Wołowiec, T. (2011). *Podstawy gospodarki finansowej gminy, Krynica-Zdrój – Rzeszów*: National-Louis University & Institute for Financial Research and Analyses in University of Information Technology and Management in Rzeszów.

<sup>8</sup> See: Skica, T., Żmuda, M. (2009). *Formy wspierania transferu wiedzy i ich wykorzystanie w jednostkach samorządu terytorialnego*. [In:] Z. Uchnast (ed.), *Synergia w relacjach interpersonalnych w organizacjach. Wybrane zagadnienia psychologii kierowania*, Lublin-Nowy Sącz: Towarzystwo Naukowe KUL, p. 335 and next.

## Sources of Gaining and Tools to Build Financial Knowledge Potential in the LGUs

The fourth question of the survey asked for information on sources of gaining knowledge in finance by LGU structures' employees. The results of the analysis are presented in the table below. The second column shows the number of people who indicated the given source of knowledge, and the third column shows the average weight (weight sum divided by the number of answers) given to each source. The highest average weight was attributed to courses and other sources used by the respondents to gain financial knowledge, such as legal journals, acts, publications and the Polish legal website, LEX. The third place as to the attributed weight was given by the respondents to specialist literature, with its average weight of 2.2, on a scale of 1 to 3. Television, press and the Internet were marked as the least important sources for extending knowledge on finance; the value of their average weight was below 2. However, it should be noted that the most commonly used sources of gaining knowledge on finance are successively: specialist literature, indicated as one of the three most important sources by as many as 80% of respondents, then external training and the Internet, which were indicated by 75% of respondents each.

**Table 2: Sources of gaining knowledge by LGU employees**

Source	Number of people using the source	Average weight attributed to the source
<b>Courses</b>	3	2.3
<b>Other</b>	3	2.3
<b>Specialist literature</b>	54	2.2
<b>In-company training</b>	10	2.2
<b>External training</b>	51	2.1
<b>Internet</b>	51	1.8
<b>Press</b>	22	1.7
<b>TV</b>	2	1.0

*Source: Own study based on the research results*

Specialist literature was used as a source of gaining financial knowledge by all the men and 77% of the women. It was also more often used by people from the higher age groups and people employed in the unit for more than 5 years. External trainings was used more often by the men, medium age groups, i.e. over 36 and below 55, with secondary education and the longest work experience. The Internet, in turn, was used more frequently by women, medium age groups, with secondary education and the longest work experience in the LGUs.

Another examined issue was the time dedicated by the respondents to extending their financial knowledge, divided by the particular knowledge sources. Table 3 shows the distribution of

sources used by local government employees for extending their financial knowledge, according to the number of people using the sources and the time dedicated to working with them.

**Table 3: Time dedicated to extending financial knowledge**

Source	Number of people indicating the source	Average number of hours dedicated to gaining the knowledge
External training	35	5.2
Press	16	4.8
Internet	33	4.5
Specialist literature	26	4.5
In-company training	7	4.3
TV	1	4.0
Other	3	3.7
Courses	2	2.0

*Source: Own study based on the research results*

Analysis of the obtained answers revealed that the most time was dedicated by the respondents to external training. People who used this source for gaining financial knowledge allotted over 5 hours monthly on average for that. To explore information contained in the other sources, the respondents dedicated from 4 to 5 hours monthly for each source. As shown in the research, the only source which took up less time were courses.

The obtained results seem self-contradictory. On the one hand local government units' employees claim that information noise is an important problem in accessing financial knowledge, and on the other they indicate among the basic sources for gaining that knowledge the Internet, the resources of which are often a source of disinformation.<sup>9</sup> Worth noting is also the approach to taking advantage of training. Research shows that in the vast majority of cases it is external training. Such training is more expensive as a rule, and it also makes the trainees almost completely unavailable for the unit. Such situation is harmful particularly in small rural communes, where particular departments base on two, or sometimes even one employee. Thus external training in such communes considerably disorganises the work of the given departments, and hence of the whole unit. As has been shown in the chapter on the current trends in extending financial knowledge, a much better solution is in-company training, dedicated and flexible. That solution provides a range of benefits. Beside the obvious cost-related advantage, it ensures greater availability of the employee, lesser destabilisation in the functioning of (particularly the small) units and reduction of the opportunity cost related to the time allotted to external training.

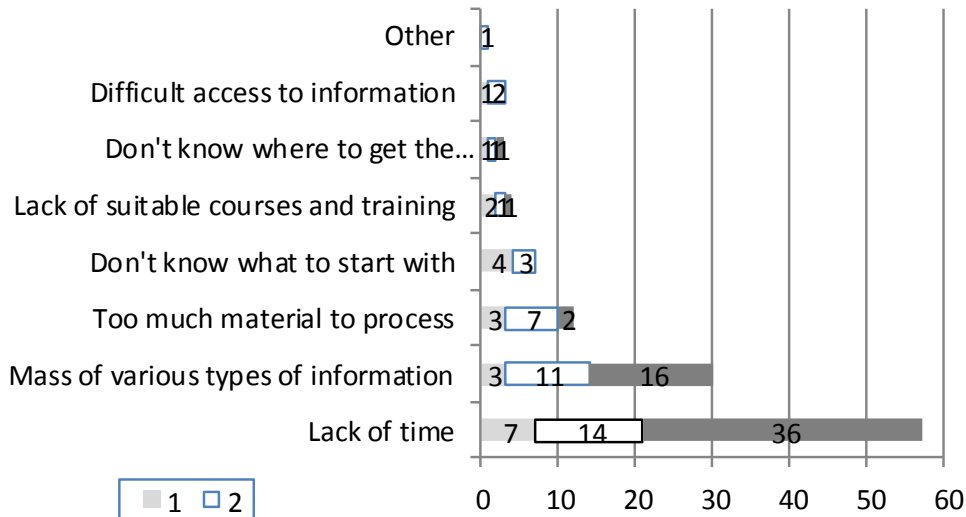
### **Barriers in Gaining Financial Knowledge by LGU Employees**

The survey also examined the barriers that local government employees had to face when extending their financial knowledge. The respondents were to indicate the three greatest barriers

<sup>9</sup> See more in: Skica, T., Żmuda, M. (2008). *Wybrane aspekty zarządzania wiedzą w jednostkach samorządu terytorialnego*. Scientific papers of Poznan School of Banking, Nr 21/2008, p. 127 and next; Wołowiec, T., Skica, T. (2011). *Diagnoza w obszarze wiedzy finansowej jednostek samorządu terytorialnego*. [In:] Skica T. (ed.), *Financial knowledge in actual activity of local government units*, Analytical report, Vol 1, No 2, University of Information Technology and Management in Rzeszów, p. 5 – 11.

in their opinion and rank them according to their importance, giving a weight of three to the greatest barrier. Chart 10 presents both the number of answers concerning the particular barriers and the weights attached to them.

**Chart 10: Ranking of the greatest barriers in raising financial knowledge on a scale of 1 to 3 (3 stands for the greatest barrier)**



Source: Own study based on the research results

The most frequent barrier, in the opinion of nearly 84% of the respondents, was lack of time, with the second place taken by the mass of various types of information. The latter obstacle was indicated by over 44% of the examined people. The third place as to the number of indications was taken by the statement “don’t know what to start with”, selected by almost 18% of the respondents. The other obstacles in extending knowledge in finance, i.e.: lack of suitable courses and training, difficult access to information, ignorance of sources for gaining knowledge, were indicated by less than 6% of the respondents. Other barriers mentioned were among others: lack of means, lack of finance in the unit, lack of willingness, bureaucracy and frequent changes in regulations.

Lack of time plagues more acutely people with a longer work experience and the older ones. The mass of various information is complained about by people from the medium age groups, i.e. over 36 and below 55, with secondary education and with the longest work experience in the unit. Too big scope of material to analyse (explore), in turn, is most frequently a problem for women, people of 36-45, those working as treasurers.

In answer to the question: in which of the given forms of raising financial qualifications the given person would like to partake, most people chose external training – as many as 72%, the second place was taken by seminars – 25%, the third by post-graduate studies. A little more than 13% of respondents would be inclined to take part in advisory programmes, and only 2.9% - in public lectures. None of the respondents would like to raise their qualifications at university/college studies. The respondents could choose as many answers as they liked, and these are shown in Table 4.

**Table 4: Ranking of forms of raising financial qualifications chosen most frequently by the respondents**

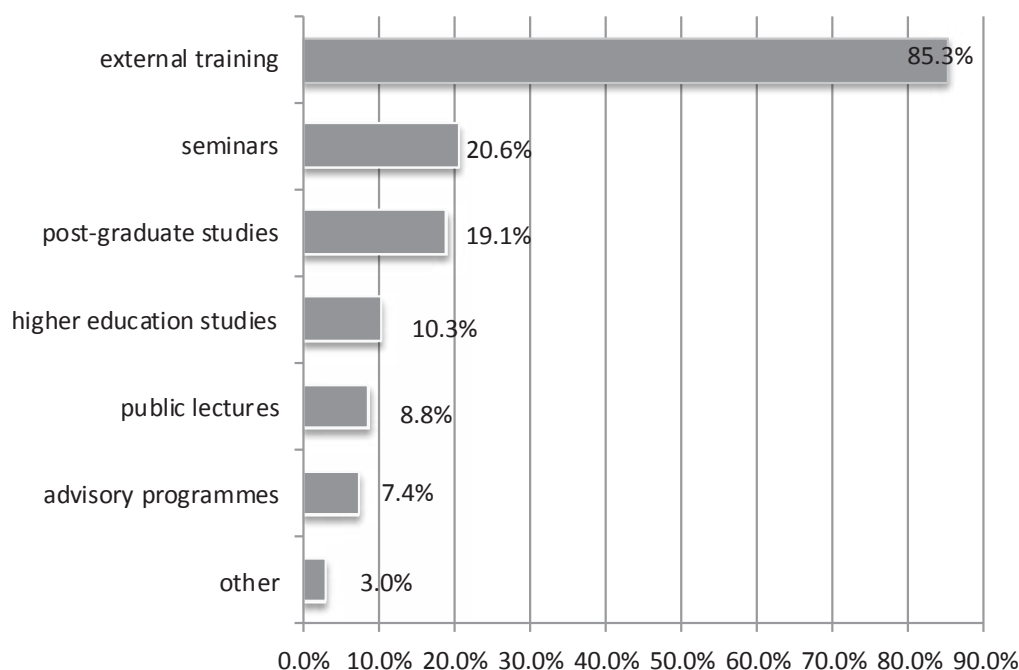
Forms of raising financial qualifications	Percentage of respondents
External training	72.1
Seminars	25.0
Post-graduate studies	22.1
Advisory programmes	13.2
Public lectures	2.9
Higher education studies	-
Other	-

*Source: Own study based on the research results*

External training is the form of raising qualification which is preferred more often by people with longer work experience in the unit and clerks from lower age groups. Seminars are more appealing to people from the lowest age group, and post-graduate studies are most interesting for women with higher education and from the lowest age groups.

The next question was whether local government units' employees participated in external forms of raising qualifications. It allowed to define which forms had most often been chosen by them in the last three years in their work in local government structures. The obtained answers are illustrated in Chart 11.

**Chart 11: Forms of raising financial qualifications used by the respondents within the last 3 years**



*Source: Own study based on the research results*

Within the last three years, the biggest group of respondents took advantage of external training – as many as 85.3%, with seminars (20.6% of answers) coming second, and post-graduate studies third (19.1% of answers). The other forms of raising financial qualifications were represented in the respondents' answers as follows: higher education studies – 10.3%, public lectures – 8.8%, advisory programmes – 7.4%. Only 3% of the respondents declared a willingness to use other forms of education, including e.g. courses.

People who took part in external training were mostly below 55, had secondary education and the longest work experience in the unit. Seminars were chosen by men, from the lowest age group. Every fifth woman and every eighth man raised their qualifications at post-graduate studies; the form enjoyed particular interest with people at the age of 36-45 and people working in the unit for more than five years. Studies were chosen mainly by women, age group 36-45, who already had higher education.

In summary, it must be added that the barriers in taking initiatives to extend financial knowledge in local government structures are mainly caused by soft conditions and not the rigid barriers of costs. The main reason for LGU employees not taking actions to raise their financial knowledge potential is their lack of time. This problem concerns both public and private sector employees, but specifically those of the private one. Meanwhile, initiatives to raise knowledge in the private sector are not only much more common, but they also take forms not used in local government structures. These include coaching, mentoring, knowledge base creation, sharing or transferring knowledge<sup>10</sup>. A problem in local governments is still, as it turns out, insufficient openness to the potential of the environment. If for 44% of the respondents an obstacle in initiatives connected with extending knowledge is the mass of information, it may mean that the answering employees cannot filter out information that is important to them, and thus they are not able to effectively link their needs in the area of knowledge related to their posts with the possibilities provided in that respect by the educational services' market. The problem is thus not the information noise in itself, but rather the inability to clearly define the needs concerning specialist knowledge. This thesis seems to be confirmed by the answers to the question about barriers in extending knowledge. In fact, nearly 20% of the respondents claimed that the basic barrier in taking actions to extend their financial knowledge was the inability to decide what the starting point should be for those actions. One can thus hardly view the deficiency of knowledge in the LGUs in the categories of rigid barriers, deriving from financial limitations. As research has shown, in many cases the problem is mundane, and more importantly, it lies on the side of the interested people themselves, and not of the structures employing them.

### **Preferences as to Forms of Gaining Financial Knowledge by LGU Employees**

The research on financial knowledge of local government structures' employees also examined the knowledge of specific forms of financing public tasks that had so far been used by the communes. The results are presented in Table 5.

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<sup>10</sup> More on this topic can be found in: Żmuda, M., Skica, T. (2009). *Kultura organizacyjna w kontekście zarządzania wiedzą. Wybrane aspekty*. [In:] T. Szot-Gabryś (red.). *Wiedza jako czynnik rozwoju gospodarki i organizacji*, Kielce: Wydawnictwo Wyższej Szkoły Umiejętności im. S. Staszica w Kielcach, p. 229; Reško, D. Wołowiec, T., Soboń, J. (2010). *Podstawy organizacji i zarządzania pracą*, Wyższa Szkoła Biznesu – National - Louis University: Nowy Sącz, p. 240; Wołowiec, T., Soboń, J. (2010). *Decentralizacja, rozwój lokalny i gospodarka finansowa jednostek samorządu terytorialnego*, Nowy Sącz: National-Louis University, p. 145.

**Table 5: Forms of public tasks' financing by the communes**

Forms of public tasks' financing	Commune type				Total
	city with district rights	muni-cipal	municipal and rural	rural	
Leasing	1		1		2
Factoring	1	1	1		3
Debt conversion into communal bonds			1		1
Financial engineering			1	1	2
Public-private partnership			1	8	9
Venture capital					0
Bancassurance					0
Securitisation				1	1
Project finance					0
Private equity				1	1

*Source: Own study based on the research results*

The conducted research shows that the way of alternative financing of public tasks that is most often used by the communes is a private-public partnership (PPP). This form of financing is preferred by rural communes. The other instruments do not enjoy much interest. Instruments not used at all included bancassurance, venture capital and project finance. The obtained results confirm that local government employees have limited financial knowledge as concerns complex financial instruments which are not commonly used. The fact only confirms the thesis that local government structures' employees have a relatively narrow knowledge, limited basically to the typical budget-based instruments.

In the last question, the respondents were to indicate which forms of financing public tasks were considered in the units they represented. The results are presented in Table 6.

**Table 6: Forms of financing public tasks by the communes in the future**

Forms of public tasks' financing	Commune type				Total
	city with district rights	muni-cipal	municipal and rural	rural	
Leasing					0
Factoring			1		1
Debt conversion into communal bonds			1		1
Financial engineering			2	2	4
Public-private partnership	1		1	1	3
Venture capital					0
Bancassurance					0
Securitisation					0
Project finance					0
Private equity					0

*Source: Own study based on the research results*



Only four forms of alternative financing of public tasks were considered by all examined units. In the future, communes plan to use: financial engineering, public-private partnership, factoring and debt conversion into communal bonds.

The presented data lead to obvious conclusions. The research and its results may be interpreted in only one way. Local government units' employees have knowledge on finance; however, they base their actions on general knowledge resources far more than on specialist knowledge. In answer to the question about the reason and consequences of such a situation, it is worth noting that in the minds of local government employees, basing the LGU's activity on known, and therefore proven instruments brings smaller risk than reaching for modern, less frequently used financial tools. Paradoxically, the new instruments are often burdened with less risk, and often a smaller cost of application. This leads to another conclusion, it namely suggests that the knowledge of LGU employees in the area of modern financial instruments is to a far greater extent theoretical than practical. Such a situation poses the question about the validity of the costs related to raising knowledge in areas which cannot be used in the unit's practical activity. Financial knowledge, be it most refined, will be of no value to the organisation as long as it cannot be used in practice. Thus the cost of gaining it will be an unjustified cost.

It is thus vital to diagnose the reasons for not using the possessed knowledge. Research irrefutably proves that these are mainly reasons rooted deep in the minds of local government employees, which result on the one hand in lack of trust towards new and relatively seldom used solutions, and on the other in insufficient knowledge on the given instruments and benefits they might give the unit. Finally, a reason for not applying financial knowledge based on pro-effective instruments is the stagnation of local government structures, which stems from using the same instruments and solutions in public task financing for many years. Thus a cause for such state of affairs may be not only distrust towards new solutions, but also the employees being accustomed to the proven financial tools.

## **Conclusions**

It would seem that the financial knowledge of people employed in local government units as: secretaries, treasurers, department managers/tax (financial) department directors, inspectors – financial/budget department employees, is important and necessary for them to be able to do their work. And indeed, as concerns the importance of that knowledge, the respondents participating in the research also stressed the definite significance of that knowledge in their work, yet according to their indications, its true level is average. Despite that (average) level of financial knowledge, in their work in the units the clerks relatively seldom feel its deficiency, and to extend their knowledge they most commonly use specialist literature, take part in external training, use Web resources, dedicating about 4-5 hours monthly for each of those knowledge sources.

The barriers in raising qualifications which were most often indicated by the clerks are lack of time and mass of various types of information (information chaos). In the recent years, in order to raise their qualifications the respondents most commonly chose external training, seminars and post-graduate studies. They would also choose analogous forms of gaining knowledge in the future. Yet if one attempts to translate the knowledge and skills of LGU employees into using various forms of financing public tasks by the communes, the analysis does not come out positive. Most popular is public-private partnership. Only single communes use other instruments listed in the questionnaire. In future, the situation will probably not improve much, for predictions as to implementing other forms of financing public tasks are not very realistic.

Taking the cited research for the starting point and basing the conclusions on the theoretical framework, it must be stated that from the perspective of strategic reaction and management system, two areas may be distinguished in the environment of local government units.

1. The area of services for the inhabitants (the unit's customers) – it is characterised by considerable functional diversity, yet particular actions are performed cyclically, according to fixed algorithms. From the viewpoint of the management system to realise the services for the customers, striving for operational and process perfection is recommended.
2. The area of creating and implementing promotion and regional strategy – it includes strategic and pro-development (investment) functions, and the most important competences to realise them – from the point of view of the management system – will focus on effective aim creation, long-term planning of their implementation (within a space of even about 50 years) and on controlling the execution of the adopted strategy.

The above listed areas form the basis for setting the criteria for rationalising the knowledge management system in local government units. The actions should be viewed on two complementary planes, i.e. diagnosis and elimination of the particular problem. Research conducted on a sample of LGUs at the communal level in Podkarpacie has shown five basic problem areas in the sphere of financial knowledge and the approach to managing its resources. In answer to the problems identified in the research, solutions to have them effectively eliminated were indicated (cf. Table 7). The thus composed list is a matrix which allows to solve situations which are problematic from the perspective of the level of financial knowledge in the LGUs and the approach to managing its resources to optimise the gained effects.

**Table 7: Conclusions for rationalising the knowledge management system in local government units**

<b>PROBLEM IDENTIFIED</b>	<b>RATIONALISATION SUGGESTIONS</b>
Need to extend professional knowledge, improvement of effectiveness of the work done	Access to professional literature and specialist periodicals. Participation in thematic training and courses. Document circulation improvement.
Lack of specified professional career path and inadequate motivation system	Access to promotion possibilities: internal recruitment and clear motivation system available to employees, creating employee development plans based on work results and quality.
No communication between superiors of higher level and subordinates	Making direct contact possible, simplifying the organisational structure (emphasis on discussion and information exchange)
Organisational problems	Document circulation improvement, rationalising the division of competences, rights and duties related to finance management and managing economic policy in the LGUs.
Unequal load per post	Equal load per post – clear scopes of duties, rotation on posts, simplifying the organisational structure.

*Source: Own study*

The above matrix is an answer to the problems diagnosed in the area of financial knowledge of local government employees and the initiatives to extend it. The given set of suggested solutions is a catalogue of tailored action proposals to rationalise the approach to knowledge resources management. In effect, it forms a consistent entirety in correspondence with the obtained research results, for the needs' diagnosis is fully reflected in the suggested ways of satisfying those needs.

In summary, when assessing the areas of knowledge expected by the LGUs to be filled in, and also considering market requirements and the changeable environment of local government structures, it must be noted that the LGUs seek knowledge and institutional efficiency in many areas of their activity. Mentioned here should be at least a few, like budget (task) planning, constructing several-year financial forecasts, financial reporting of the LGUs, control and supervision over the financial management of local government organisational units, or investment activity of the local governments. Although the above listed actions only outline the real needs in the area of the LGUs' financial knowledge, they help to note that these needs are very complex, diverse, and that they also tend to evolve with regard to the directions and dynamics of changes in the legal foundations of financial management of local government units. Paradoxically, the changes in legislation are a secondary catalyst for initiating actions to extend financial knowledge in the LGUs.<sup>11</sup> The new legislative realities, posed before the local government units by the legislator, require the units to cyclically build the financial knowledge resources, update and adjust them to the direction of changes made in the foundations of financial management of local government units. In consequence, the determinants of actions aimed to extend financial knowledge are not only of a grass-roots character, but they are just as strongly stimulated top-down. Again paradoxically, this raises a new problem. The problem is the financial awareness of LGU employees, expressed by the ability to combine the changes in the legal and financial sphere with the possibilities to effectively influence them by using financial knowledge resources. The key element seems thus not only extending knowledge in the area of finance, but having the local government employees notice the real potential resulting from gaining that knowledge and the possibilities of using the gained knowledge to actually enhance the effectiveness of the LGUs' functioning. Aptly used financial knowledge allows to anticipate the changes posed before local government units by the dynamically changing environment.

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<sup>11</sup> See: Skica, T. (2010). *Zarządzanie wiedzą w jednostkach samorządu terytorialnego*. Przegląd Komunalny, Nr 4/2010, p. 62 and next.

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