Jacek Jaworski

Gdansk School of Banking

FILING SYSTEMS IN POLISH SME SECTOR AND INFORMATION GAPS REPORTED BY ENTREPRENEURS*

Abstract: The main goal of the paper is to analyze the impact of provided filing systems on information gaps reported by the Polish small and medium enterprises. In the first part of the paper, various filing systems with their information capacity are characterized. The second part presents the results of a questionnaire survey with the statistical analysis of information gaps reported by entrepreneurs, which hinder short- and long-term decision-making.

Keywords: information gaps, Polish SME sector, filing systems.

1. Introduction

The SME (small and medium-sized enterprise) sector plays a key role in Polish economy. In 2007, it was an important source of added value (47.4% GDP), and it employed more than half of all employed workers (51.3%) and consisted of 1,777,076 active enterprises (99.8% of all entities) [Żołnierski (red.) 2009]. It is expected that its importance in globalizing and integrating economy of the 21st century will still grow.

The rational management of a small company like any business organization requires a proper information base about the company and its environment. In the literature (e.g. [Martyniuk 2009, p. 22; Pogodzińska-Mizdrak 2008, pp. 238-242; Sobolewski 2008, pp. 313-321]), there is a thesis that one of the fundamental barriers of small enterprise's development is a limited access to properly prepared and reliable information. In this context, the key factors influencing the managing conditions of enterprises include mandatory filing systems provided in Polish SME sector as a fundamental source of financial information about a company.

Depending on the adopted forms of income taxation, a small company is obliged to carry out various types of filing systems allowing to estimate the taxes paid.

A different structure of these systems causes a different information capacity of each of them. This fact, in turn, allows to form the hypothesis that in SME sector different types of information gaps may occur.

The main objectives of this paper are empirical analysis of information gaps reported by entrepreneurs and their relation with mandatory filing systems used in the Polish SME sector.

2. Characteristics of filing systems used in Polish SME sector

In the Polish SME sector, the primary factor influencing the filing systems is a form of income taxation. In view of tax solutions, this income may be legally taxed under the following laws:

1) Act of February 15, 1992, about the income tax from legal persons (ITLP) – applies to all income earned by legal persons (capital companies),

2) Act of July 26, 1991, about the income tax from natural persons (ITNP) – contains the general principles of taxation of income earned by the company of natural persons,

3) Act of November 20, 1998, about the flat-rate tax on some parts of income of natural persons (FRITNP) – enables enterprises of natural persons or their companies to establish a simplified flat-tax liability depending on income earned.

In close connection with the above-mentioned tax laws is the Act of September 29, 1994, about accounting (AaA). It regulates the duties of accountancy for all companies organized as capital companies and other legal persons, and also for companies of natural persons, whose earnings during the preceding year exceeded EUR 1,200,000.

The first group of firms consists of entities which are taxed in accordance with general principles. They are required to apply one of the first two above-mentioned laws according to the selected legal form. The general principles rely on estimating income as the subtraction of expenses from revenue and then taxing this income by a tax scale. Currently, the Polish tax standards for legal persons stipulate a linear scale with a tax rate of 19%. The linear scale (19%) is also possible for natural person, but in general one tax band is used (18% for income 0 – PLN 85,528 and 32% for incomes higher than PLN 85,528).

All legal entities and natural persons which have surpassed the revenues from the sale of EUR 1,200,000, taxed in accordance with general principles, are required to keep accounting books in compliance with AaA. The application of AaA provides a company with the most informational capacity of maintained filing system. This system includes accounting books harmonized with the International Accounting Standards. Despite the numerous simplifications, which can be used by small firms, these books fairly and faithfully reproduce all the basic financial categories associated with the measurement of business assets, sources of financing, costs and revenues.

They give rise to a broad assessment of not only the effects of entrepreneurial activity (financial result) but also of the factors influencing these outcomes (resources, costs and revenues) [Jaworski 2008b, p. 354].

The firms of natural persons, which do not exceed the designated level of income, should provide filing system according to art. 24a. § 1 ITNP. It says that they shall keep the so-called income and expenditure tax book (Revenue and Disbursement – RaD). The basis of the RaD records are the amounts of revenue and expenditure. As a result, an accountant may at any time determine the profit (revenue minus costs), which is the basic category of taxation. Although there are fairly significant differences in the perception of costs and revenues by the AaA and ITLP, the Revenue an Disbursement, like accounting books, can reliably characterize the factors influencing the financial result. In the case of assets and sources of financing, the situation is different. The taxpayer is required to keep some other records and procedures concerning the assets (such as records of fixed and intangible assets, records of equipment, mandatory annual inventory, etc.).

RaD is devoid of important information, i.a., about [Jaworski 2008a, p. 24]:
– claims and liabilities arising from current and long-term business,
– cash in the company,
– current status, quantity and value of materials, finished products or goods.

However, the information may be stored in the company voluntarily.

For some firms of natural personsthe Polish law allows further simplification in the filing systems by selection of other, alternative forms of taxation, differing from general principles. Taxpayers, whose income in the preceding year did not exceed EUR 150,000 or those starting a business, can choose a flat-rate income taxation. Selected activities such as operation of pharmacies, pawnbrokers, exchange offices and some professions such as lawyers or accountants and in the last, services listed in Annex no. 2 to FRITNP: brokering the sale of fuel, financial intermediation, advertising services, detectives and a few others are excluded from this rule.

Tax rate depends on the type of business and tax base is a recorded revenue (20, 17, 8.5, 5.5 and 3%). In this form of taxation, in addition to revenue records, the taxpayers are obliged to carry out cards of staff salaries, fixed and intangible assets records and an annual inventory of materials, finished products and goods. It means that the filing system in the flat-rate taxation has more limited capacity than RaD – it does not include costs level. The income can be calculated only by using optional records.

Another form of flat-rate taxation is a tax card. Taxpayers choosing this taxation form should be guided by a comprehensive Annex no. 4 to FRITNP. In this document, there are listed 95 activities, mainly in the service sector, which may be subject to the tax card. The critical factor in choosing this form of taxation is the number of employees (taxpayers cannot employ more than 2-5 workers depending on their activity).
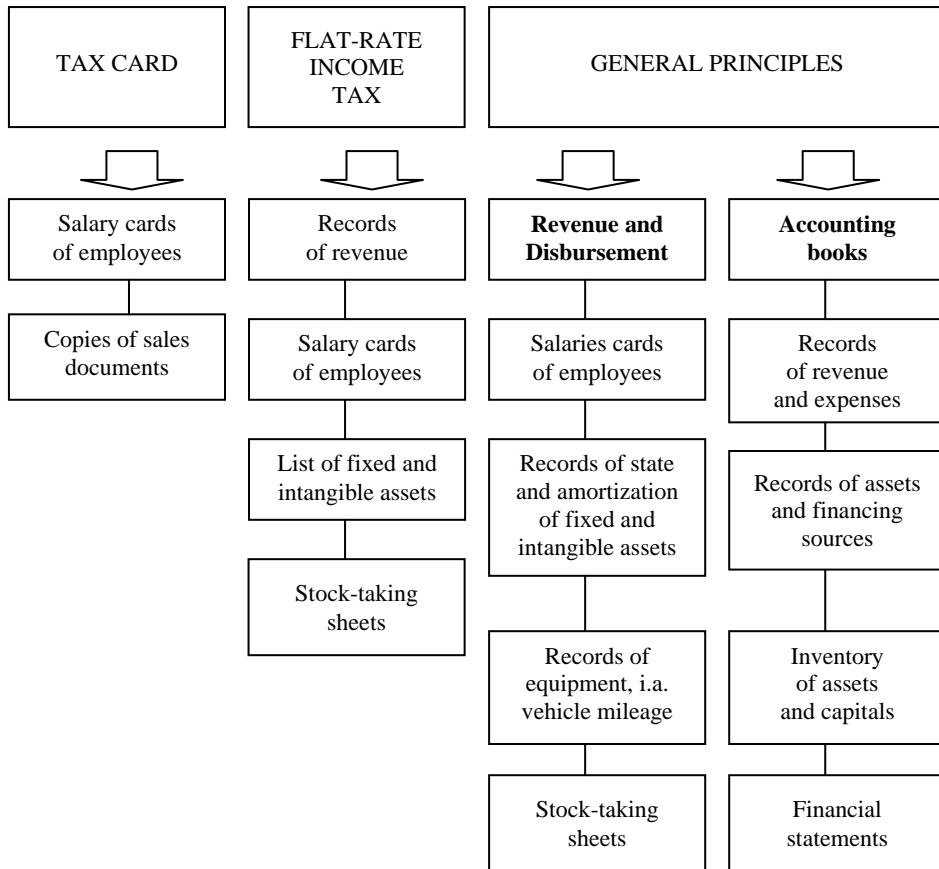
Fig. 1. List of recording obligations in forms of taxation in Poland

Source: own elaboration based on [Martyniuk 2009].

The tax amount in the tax card depends on the type of activity, the number of employees and the population of a territorial community where the business is conducted. Determining the amount of tax does not require any special records. Then, companies which chose this taxation form must only keep salary cards of their employees. In addition, they are required to keep copies of sales documents. Thus, in terms of information capacity, the tax card is the least efficient filing system.

The list of recording obligations in particular forms of taxation in the Polish SME sector is presented in Fig. 1.

3. Empirical analysis of information gaps reported by Polish entrepreneurs

3.1. Sources and methods used in the research

The source of the research are the results of the questionnaire survey made among Polish small enterprises in mid 2010. 1,008 respondents were asked about the chosen taxation form, kept filing system and information gaps. These gaps are divided into two fundamental groups – lack of information used in short- and long-term management. The kinds of information gaps in the above-mentioned groups are shown in Table 1.

Table 1. Kinds of information gaps used in the research

Lack of information used in short-term management	Lack of information used in long-term management
– ability to pay current liabilities, – ability to generate profits, – operational efficiency (asset turnover rate), – demand for cash, – level of current and future income, – level of current and future costs	– debt level, – cost of capital, – return of investments, – current and future value of the enterprise, – position in industry and among competition, – financial results of planned development

Source: own elaboration.

Respondents marked in their opinion the most significant information gaps among the information listed in Table 1. These respondents were divided according to the filing system kept. The results of the questionnaire have been converted to percentage of each indicated information gap.

For the evaluation of the statistical correlation between the set variables (filing systems and information gaps) the chi-square compatibility test has been used. This test is used to verify the hypothesis concerning the relation between two qualitative variables and it is based on chi-square statistics (more: [Balicki, Makać 2000, pp. 227-231]).

The mathematical aspect of the chi-square test is reduced to calculate the statistics:

$$\chi^2 = \sum_{i=1}^{k} \sum_{j=1}^{l} \frac{\left(n_{ij} - \hat{n}_{ij}\right)^2}{\hat{n}_{ij}} = \sum_{i=1}^{k} \sum_{j=1}^{l} \frac{n_{ij}^2}{\hat{n}_{ij}} - n$$

where: l, k – kinds of first and second variables,

$\quad\quad n_{ij}$ – empirical numbers of the simultaneous occurrence of pairs of variables i and j,

$\hat{n}_{ij} = \dfrac{n_i \times n_j}{n}$ – expected numbers of the simultaneous occurrence pairs of varia-
bles i and j,

n – number of all respondents' answers.

The calculated statistic is compared with the theoretical value of chi-square distribution (for example read out from the statistical tables for specific values of k and l and also the significance level). If χ^2 is less or equal to read value, then there is no reason to reject the hypothesis about the independence of variables. Otherwise, there are reasons for acceptance alternative hypothesis that the variables are dependent.

To determine the strength of the correlation between each of the examined factors and reported information gaps, T-Czuprow and C-Pearson contingency coefficients are used. Both indicators are used in estimating the strength of correlation for qualitative variables (more: [Makać, Urbanek-Krzysztofiak 2001, pp. 152-162]). Mathematical definitions of these coefficients are presented in Table 2.

Table 2. T-Czuprow and C-Pearson contingency coefficients

T-Czuprow	C-Pearson
$T = \sqrt{\dfrac{\chi^2}{n \times \sqrt{(k-1) \times (l-1)}}}$	$C = \sqrt{\dfrac{\chi^2}{\chi^2 + n}}$

Source: own elaboration based on: [Makać, Urbanek-Krzystofiak, p. 155].

The values of both coefficients are in the range (0-1). The correlation between the examined variables is stronger when the coefficients' values are higher. For the purpose of this research it is assumed that [Barańska 1999]:
–   correlation is weak when both indicators are less than 0.30,
–   correlation is moderately strong when the indicators are in the range (0.30-0.60),
–   correlation is strong when the values of coefficients are higher than 0.60.
The significance level for chi-square distribution is set on 0.1.
At the end of the research, the structure analysis of the respondents' indications are made in the two above-mentioned groups of information gaps.

3.2. Discussion of the research results

Table 3 presents the results of the calculation of chi-square test and also T-Czuprow and C-Pearson coefficients for the chosen filing system and reported information gaps. These results point out that the gaps are weakly dependent on the filing systems. In the case of a short-term management the strength of the depending is slightly higher than in the case of long-term management, but in both cases this strength is not significant. It leads to the conclusion that irrespective of the applied filing system, all entrepreneurs have reported similar lacks of information.

Table 4. Results of correlation study between filing systems and reported information gaps

Factors	Information gaps in short-term management	Information gaps in long-term management
Empirical χ^2	32.310	22.900
Theoretical χ^2	22.307	22.307
Hypothesis	variables are dependent	variables are dependent
T-Czuprow	0.1495	0.1295
C-Pearson	0.2823	0.2470
Strength of correlation	weak	weak

Source: own elaboration.

The lack of information concerning the short-term management is presented on Fig. 2. In all cases except tax card, the lack of information about current and future income is the most commonly indicated one (22.2 to 24.3%). For taxpayers with income records and RaD, the lack of information about ability to pay current liabilities takes the second place (21.7 and 22.3%). In case of accounting books at the second place, the respondents indicate the lack of information about current and future costs (21%). For income records and RaD, this lack of information is pointed on the third position. The same position is taken by the lack of information about liquidity for enterprises keeping accounting books. The rest of the information gaps are less significant and in all cases they are reported by ca. 15% respondents.

Entrepreneurs taxed by a tax card report completely different information gaps. The most common is a lack of information about the efficiency, followed by current
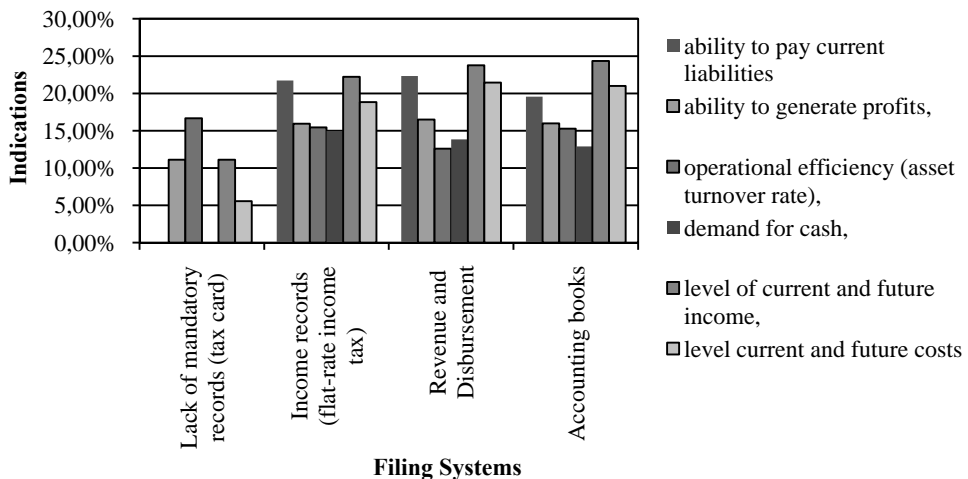

Fig. 2. Reported information gaps in short-term management

Source: own elaboration.

and future income and by the ability to generate profit. Other types were not identified.

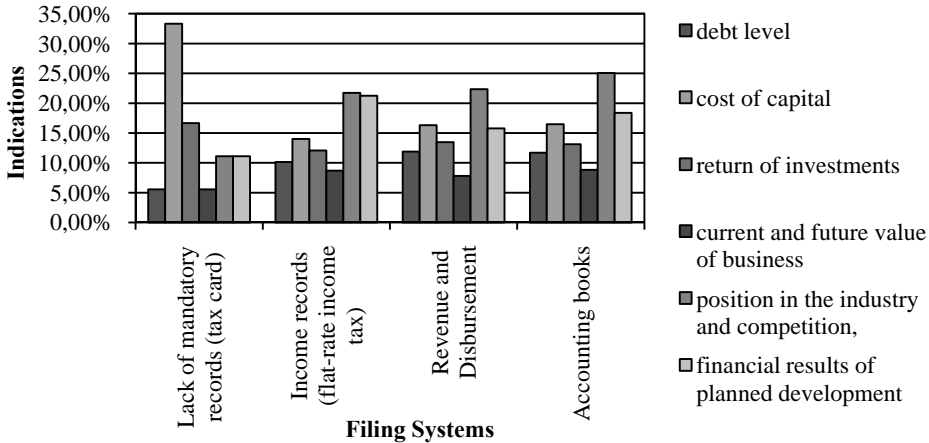Figure 3 presents the reported information gaps in long-term management.

Fig. 3. Reported information gaps in long-term management

Source: own elaboration.

For all entrepreneurs except for the respondents taxed by tax card, the most important lack of information in the long-term management concerns the positions of their firms in the industry and among competition. Information gaps in this area are reported by 25.06% taxpayers keeping accounting books, 22.34% entrepreneurs with RaD and 21.74% taxpayers of flat-rate income tax. For the latter respondents, the lack of information about the financial effects of the long-term development plan is slightly less annoying (21.26% of indications). This information gap is on the third
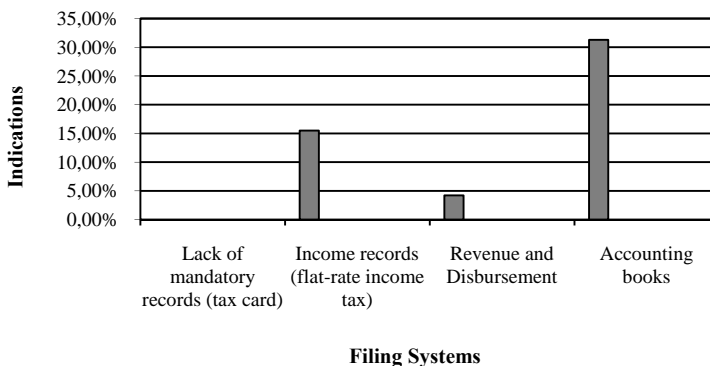

Fig. 4. Percentage of respondents reporting no information gaps

Source: own elaboration.

place for enterprises with accounting books and RaD. The second is a lack of information about the cost of capital. The remaining information gaps are reported by ca. 10% respondents.

Tax card payers report that for them the most annoying is a lack of information about the cost of capital (33.33% indications). The second place is the information gap about the return of investments takes (16.60%). The rest of indications are not significant.

Some entrepreneurs think that in the decision-making they have not any lack of information. Figure 4 shows the percentage structure of respondents divided by the filing systems provided by them. The largest number of indications concerns the entrepreneurs running accounting books (31%). It confirms that this is the most useful filing system in the corporate management.

4. Conclusions and recommendations

The main hypothesis of the article could be verified positively only partially. Information gaps reported by Polish small entrepreneurs depend on the kept filing systems. But the strength of this relation is weak. It means that for all entrepreneurs equally important information gaps are similar. A detailed analysis of respondent's indications confirmed this fact for companies running the records of income, RaD and accounting books. Tax card payers report different lacks of information and it is an exception to the observed rule.

Yet another significant fact is that in case of short-term management, even firms running accounting books complain about the lack of information concerning current and future revenues and costs. This may mean that, with the more detailed kept records and presented information, there is an increase of interest in the latter. It may also be the result of lack of trust for kept filing systems or their improper use. This phenomenon undoubtedly requires further research.

In the long-term management, most entrepreneurs are interested in expanding the information about the company's position in the industry and among competitors. It may be due to the lack of an access to information about other entities or the ignorance of comparative methods and techniques. The identification of reasons for this aspects may be a prerequisite for the next stage of the research.

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SYSTEMY EWIDENCYJNE W POLSKIM SEKTORZE MŚP A LUKI INFORMACYJNE ZGŁASZANE PRZEZ PRZEDSIĘBIORCÓW

Streszczenie: Głównym celem artykułu jest analiza wpływu prowadzonych systemów ewidencyjnych na zgłaszane luki informacyjne przez polskie małe i średnie przedsiębiorstwa. W pierwszej części artykułu scharakteryzowano poszczególne systemy ewidencyjne oraz ich pojemność informacyjną. W drugiej przedstawiono wyniki badań ankietowych wraz z analizą statystyczną zgłaszanych przez przedsiębiorców braków informacji utrudniających podejmowanie decyzji krótko- i długoterminowych.