

# DEMAND FOR FINANCIAL INFORMATION IN SMALL BUSINESS MANAGEMENT. EMPIRICAL STUDY

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## Abstract

*Limited access of small enterprises to reliable and well-prepared information about their condition is mentioned as one of the main barriers to small business development. One of the key types of information used in management is financial information. It concerns the resources and financial flows in the enterprise.*

*The main goal of the paper is to present the results of the questionnaire survey conducted in mid. 2010 among managers of small enterprises in Poland. The survey was used to recognize the usefulness of financial information in decision-making, to diagnose information needs of entrepreneurs and to identify factors affecting these needs.*

**JEL Classification:** M19, M21, M49

**Keywords:** Small business management, Information in decision making, Manager's information needs

**DOI:** <https://dx.doi.org/10.65748/fiqf-2012-0021>

Received: 2.03.2012

Accepted: 31.08.2012

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## Introduction

Small enterprises create one of the key sectors of modern economy. For example, it produced 32.6% of Polish GDP, employed 51.9% of all employees and comprised 98.87% of active companies in Poland in 2009 (Brusa and Tarnawa, 2011).

Limited access of managers of small companies to reliable and properly prepared information is one of the most frequently mentioned barriers to the small business development. The lack of proper information causes mistakes in management, which are the main reasons for business failures. Especially, it concerns financial information describing in cash the key processes and business objectives of companies.

This article aims to present the results of empirical research. The goal of this research was to diagnose demand for financial information in small business management and the factors forming them. In the latter respect, taking into account conditions of functioning modern companies, it was decided to test the hypothesis saying that mentioned needs depend mainly on: size of a company, nature of its business, life cycle phase in which the company is and managers' education.

## Financial information and its role in enterprise management

The key role of information in decision-making is no doubt. Information is one of the most important resources of each company. The main function of this resource is supporting the decision making process. It concerns especially small enterprises, which are forced to operate in a rapidly changing economic environment. Therefore, Chang and Lee (1992) can be cited: "the fundamental strategic weapon of small businesses is to collect information and their use in creating products and services."

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The research of Trindade (in: Ganzhorn, and Faustoferri, 1990) led to two specific conclusions about information determinants of small business activities. First – the success of small enterprises increasingly depends on reliable and timely information about market situation and internal situation of the enterprise. But secondly – a typical situation in a small enterprise is the lack of analysts and information processing tools. It also concerns the financial information.

Content and subject of financial information concern different types of corporate financial flow. Such information conveys messages about formation of all economic phenomena related to corporate finance. It includes messages about the direction, value and strength of financial flows and decisions on their changes. This paper attempts to explain the role of financial information in small business management as a one of resources used by entrepreneurs.

In the classification of financial information, multiple criteria can be used. Taking into account the usefulness of this information in management, the key criteria will be period for which decisions are taken and scope of these decisions. During the identification of financial information, financial goals also play a crucial role. According to a widely accepted opinion (Ross, Westerfield, Jordan, 1999) the main long-term financial goal is to maximize a company's value. In this context, information about the current and projected value of a company appears to be significant information for long-term management. This value primarily derives from the long-term financial performance and the relationship between assets and capitals of an enterprise. Therefore, relevant information in long-term management also concerns:

1. profitability of investments in fixed assets,
2. shape of the company's financial structure (the company's debt),
3. cost of the capital used in assets financing,
4. company's financial condition in relation to its competitors and business sector,
5. expected financial results of the planned long-term activities.

In the short term, the company usually seeks to achieve a satisfactory profit (Ross, Westerfield, Jordan, 1999). In this respect, in particular, decisions taken by the company should be aided by information about:

1. ability to generate profits (profitability),
2. shaping the current and future revenue,
3. incurred and planned costs.

In addition to profit maximization, decisions in short-term management should also include a second important task, namely, the maintenance of liquidity. It is a very important task, because the loss of liquidity is the main cause of bankruptcy of today's companies. Direct information about the current and expected liquidity should also be accompanied by:

1. information about the demand for cash in the short term,
2. information about the efficiency and effectiveness of management of current assets and liabilities.

### **The determinants of the demand for financial information: a literature overview**

The research of demand for managerial financial information in small enterprises was started by Luoma (1967). It was continued by Proctor, and Canada (1992), Pell, and Wilson (1996) and Block (1997). Table 1 presents the description of these studies and their results.

**Table 1: Studies on Manager's Information Needs in Small Business Management**

Author	Research description	Research results	Conclusions
Luoma (1967)	A questionnaire survey among 62 small production enterprises in the USA	86 % of enterprises point that they need various types of financial information during decision making	Financial information is necessary for decision making process in the SME sector
Proctor and Canada (1992)	A questionnaire survey among 928 small enterprises in Australia	The most expected tools for processing financial information are: cash flow estimate (20.6%), budget of expenses (18.1%), revenue budget (17%) and break-even point analysis (12.3%)	Financial information expected by managers is very diversified and it concerns in varying degrees many financial categories
Pell and Wilson (1996)	An analysis of methods used in working capital management in 123 small companies in the UK	The working capital management was mainly based on review of bad debts (38%), forecasts of demand for cash (36%), customers' credit rating (24%) and control of inventory levels (14%)	Less than 40% of small businesses use verified methods of information support of working capital management.
Block (1997)	An analysis of methods used in investment management in 238 small enterprises in the USA	42 % of managers estimated pay-back period, 22 % - rate of return, 16 % internal return rate and only 11 % - NPV, 7 % took decisions intuitively	Less than 30% of small businesses use verified methods of information support of investment management

*Source: Own elaboration*

The outlined studies lead to two main conclusions:

1. managers of small enterprises are increasingly aware the role of financial information in making economic decisions,
2. but they do not use verified methods of information support managing process.

Among the Polish studies two items deserve attention: the research of Nogalski and Karpacz (2011) and the survey of Polish Accountants' Association (Pielaszek, 2008). The first research revealed that accounting records and reports are important sources of information used in small business management. 20.0% of surveyed manufacturing and 13.4% of commercial and service companies assessed them as very often used. Only information derived from daily newspapers (36.0/34.6%), Internet (31.4/29.2%) and the professional literature (23.0/19.1%) were more important in decision-making for surveyed enterprises.

Between 2004-2006 Polish Accountants' Association carried out three independent surveys about desirable changes in accounting for SMEs. The first survey concerned entrepreneurs (268 companies), the second was aimed at auditors (75 questionnaires). The third was conducted among the 10 leasing companies as potential external recipients of financial information.

86% of the surveyed companies indicated the need to focus small business accounting on providing management information. 26% of auditors and 30% of leasing companies have the same opinion. The study also found the information awaited by entrepreneurs such as:

1. product profitability - 49.65% of responses,
2. costs of organizational units - 45.39% of responses,

3. plans (budgets) - 41.84% of responses,
4. customer profitability - 41.13% of responses,
5. cash flow - 31.21% of responses.

Diagnosing the factors influencing the demand for information is a very important element understanding the information needs. The management process, or rather its quality, quickness, effectiveness and efficiency depend on the circumstances in which an enterprise operates. It concerns the information aspects, too. The factors, which could shape the demand for information in the management process, are described by e. g. Kieżun (1998). He divided these factors into two groups: endogenous - resulting from the company's characteristic and people participating in decision making process and exogenous – deriving from an enterprise's environment and current market conditions. According to Kieżun opinion, the most important factors from the first group are:

1. company's size - the larger an enterprise, the more processes and phenomena. Therefore it can be expected that managers of larger firms will report a greater demand for more detailed information,
2. type of business activity - the nature of the core business undoubtedly determines the significance of different kinds of information according to processes and activities inside an enterprise,
3. phase of the life cycle in which a company is - managers will be interested in other types of information depending on the economic situation which is characterized by the life cycle phase in which a company is,
4. manager's education – decision-making is a process that must be learned. The higher and more educated manager (especially business profiled) the greater awareness of this process and the wider, more detailed information needs.

The above comments also apply to the widely understood financial information (Jaworski, 2011). The empirical research of factors forming managers' information needs in the small-business sector was begun by Holmes, Kelly, and Cunningham (1991). They identified four main factors using the logit analysis based on a survey among 900 small Australian enterprises:

1. size of an enterprise - the larger enterprise, the larger the demand for information,
2. age of an enterprise - older companies report the demand for more detailed information but also more standardized than the star-ups,
3. nature of an activity - the more homogenous activity, the smaller managers' information needs,
4. education of managers - the more educated owner, the larger demand for information.

Another researcher (Lybaert, 1996), using the regression analysis of the survey carried out among 208 Belgian small enterprises, successfully verified three hypotheses:

1. better informed companies achieve better average results, and vice versa, companies that achieve better results report a larger demand for information,
2. information needs are determined by managers' awareness, their education, professional experience, focusing on the company's growth and also by the life-cycle phase which the company goes through,
3. demand for information increases together with the company's growth, but decreases with its age.

The studies of factors influencing the managers' information needs in the Polish small enterprise sector have not been performed.

## Research methods

Small-sized enterprise according Polish regulations (UoSDG, art. 104 and 105) is defined as the company, whose employment in the past 2 years did not exceed 50 people, and its revenue or total assets were less than € 10 000 000. In 2010 there were 1 723.7 thousands active small enterprises in Poland (Brusa and Tarnawa, 2011). For the recognition of their managers' information needs, the questionnaire survey was conducted among 1008 managers of Polish small enterprises in mid. 2010. The surveyed companies were layer drawn in the proportion resulting from the indicators in the general population (size of the enterprise, nature of activity, geographical distribution etc.) according to report prepared by Brussa and Tarnawa (2011). The selected sample can be regarded as representative.

The survey was conducted by "CEM Market & Opinion Research Institute" from Krakow at the request of the author. Researchers used the Computer Assisted Telephone Interview (CATI) method. Entrepreneurs were asked: what financial information they usually expect to receive before taking short-and long-term decisions. In both areas, the respondents had a choice of 7 types of information listed in Table 2. Description of these information types was placed in previous section of the paper.

**Table 2: The List of Financial Information Types Used in the Survey**

Short-term management area	Long-term management area
<p><b>Information about:</b></p> <ol style="list-style-type: none"> <li>1) ability to regulate current liabilities (liquidity),</li> <li>2) ability to generate profits (profitability),</li> <li>3) efficiency of the operational activity,</li> <li>4) short-term demand for cash,</li> <li>5) current and future income,</li> <li>6) current and future costs,</li> <li>7) other information.</li> </ol>	<p><b>Information about:</b></p> <ol style="list-style-type: none"> <li>1) level of debt,</li> <li>2) cost of capital,</li> <li>3) profitability of investments,</li> <li>4) current and future company's value,</li> <li>5) company's financial condition in relation to its competitors,</li> <li>6) financial results of planned long-term activities,</li> <li>7) other information.</li> </ol>

*Source : Own elaboration*

The entrepreneurs assessed the importance of the chosen type of financial information in decision making using a 1-5 scale. The evaluation could concern any amount of information with the possibility of multiple uses of the same assessments. The used scale had to characterize the subjective view of the entrepreneur (the information is: 1 - the least important, 5 – the most important). This numerical weighting facilitates the use of statistical measures for the assessment of the distribution of responses.

In addition, there were some questions in the questionnaire which allowed me to extract the endogenous factors forming the managers' information needs. The structure of the surveyed enterprises in view of the mentioned factors is presented in Table 3.

**Table 3: Structure of surveyed entrepreneurs**

<u>Division</u>	<u>Quantity</u>	<u>%</u>	<u>Division</u>	<u>Quantity</u>	<u>%</u>
<b>Size of enterprise</b>			<b>Nature of business</b>		
Self-employed ind.	201	19.94	Services companies	439	43.55
1-9 employees	448	44.44	Commercial companies	302	29.96
10-19 employees	204	20.24	Production companies	147	14.58
20-49 employees	155	15.38	Combined business	120	11.90
<b>Company's age</b>			<b>Life-cycle phase*</b>		
Up to 1 year	314	31.15	Entry phase	58	5.75
1 – 3 years	255	25.30	Phase of dynamic growth	145	14.38
3 – 6 years	189	18.75	Stability phase	253	25.10
Over 6 years	250	24.80	End-stage phase	422	41.87
<b>Entrepreneur's education</b>					
Basic or vocational	30	2.98	Higher humanities	91	9.03
Secondary vocational	85	8.43	Higher technical	333	33.04
Secondary general	229	22.72	Higher economic	240	23.81

\*- life-cycle phase was based on the answers to questions about changes in income, profits and investment needs in the enterprise (More: Jaworski, 2012).

*Source: Own elaboration*

To examine the relationship between the diagnosed information needs and the above factors, the Chi-square test of independence was used. The mathematical aspect of this test is reduced to calculate the following statistics (More: Aczel and Sounderpardian, 2009):

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

where:

l, k – kinds of first and second variables (the entrepreneurs' score for each kind of information and assumed factor),

- empirical numbers of the simultaneous occurrence of pairs of variables i and j,
- expected numbers of the simultaneous occurrence of pairs of variables i and j,
- number of all answers.

The calculated statistics is compared with the critical value of the chi-square distribution. The critical value is read out from the statistical tables for the specific degree of freedom ((k-1)\*(l-1)) and also the significance level (probability of rejecting a true hypothesis). In the research significance level was set on 0.05. It means that the test result was established with 95% of certainly. If empirical statistic is less or equal to the read value, then there is no reason to reject the hypothesis about the independence of the variables. Otherwise, there are reasons for the acceptance the alternative hypothesis that the variables are interdependent.

To determine the strength of the diagnosed correlations, T-Czuprow and C-Pearson contingency coefficients were used (More: Aczel and Sounderpardian, 2009). Mathematical definitions of these

coefficients are presented in Table 4. The values of both coefficients are in the range of 0 - 1. The correlation between the examined variables is stronger when the coefficients' values are higher.

**Table 4: T-Czuprow and C-Pearson contingency coefficient**

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

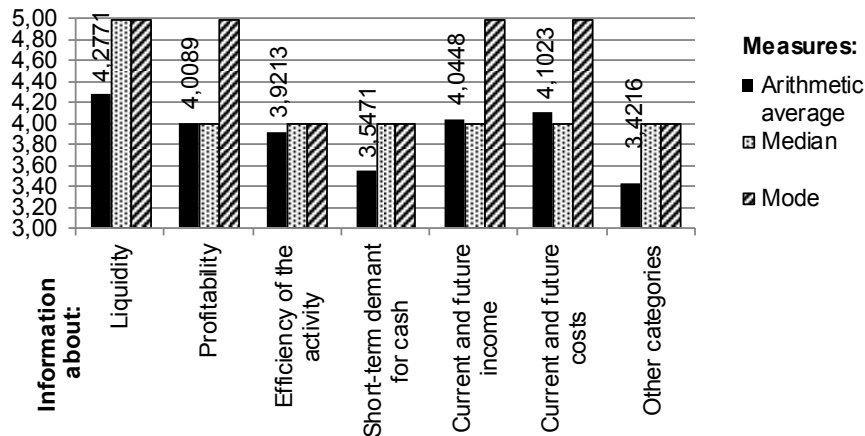
Source: Own elaboration based on: Aczel and Soundepardian, 2009

The structure analysis based on the central tendency measures (arithmetic average, median and mode) was used for the evaluation of the survey results. All calculations were carried out in a spreadsheet EXCELL. The analysis results are presented using graphical method (graphs) supplemented by written descriptions.

## Research Results

Diagram 1 presents global results of the entrepreneurs' answers about information needs in short-term decision making.

**Diagram 1: Assessment of information types expected in short-term decision making**

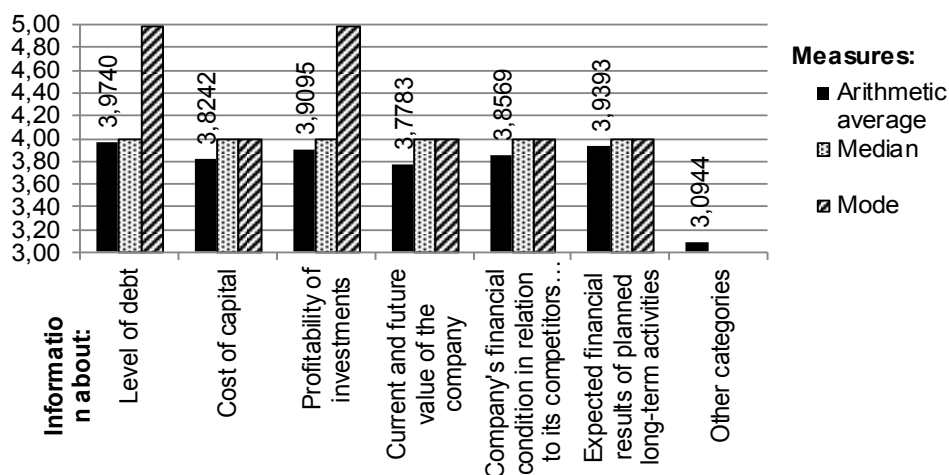


Source: Own elaboration

In everybody's opinion, the most important is information about liquidity. Its importance was most frequently evaluated by entrepreneurs to 5.0. The same level noted for median, arithmetic average is 4.2771. The information about current and future costs obtained not much lower average score (4.1023). However, in this case half of the ratings were less than 4.0. The information about current and future income was found as almost equally important (4.0448). The ratio of profitability is also significant (4.0089) for the surveyed managers. Information about efficiency is less important (3.9213). The latter type of information was most often assessed at 4.0. The information about future demand for cash is the least important (3.5471). The same concerns other types of financial information (3.4216).

Summing up the results for the short-term management, very high average scores for most types of information (above 4.0) should be noted. It means that small business managers attach great importance to short-term decision, and it causes their high information needs in this area. Ratings for the long-term management are a bit lower (Diagram 2).

**Diagram 2: Assessment of information types expected in long-term decision making**



Source: Own elaboration

The information about the level of debt and about profitability of investments has mostly obtained the highest scores (5.0). The average assessment is 3.9740 and 3.9095, respectively. The information about financial effects of the planned long-term activities received very high average scores (3.9393), too. Median and mode 4.0 mean that the entrepreneurs assessed this area of information as very stable and equally relevant. The information about the company's financial condition (3.8569) and about cost of capital (3.8242) was rated similarly, but slightly lower. Other financial information obtained the lowest scores (3.0944; mode and median 3.0). Table 5 presents calculations of the Chi-square statistic and the contingency coefficient for selected factors in a short-term management area. The presented calculations show that the entrepreneurs' information needs depend mainly on the size of the enterprise (information about: liquidity, profitability, efficiency, costs and other financial categories). To some extent they are affected by managers' education (information about: profitability, efficiency and demand for cash). The weakest dependence can be observed for the life-cycle phase of the company (information about: demand for cash and about cost levels). For the rest selected factors (age of company and nature of business), the dependence does not exist. All the diagnosed correlations are weak (contingency coefficients are less than 0.3). Diagrams 3 – 5 present distribution of the entrepreneurs' answers related to diagnosed dependencies.

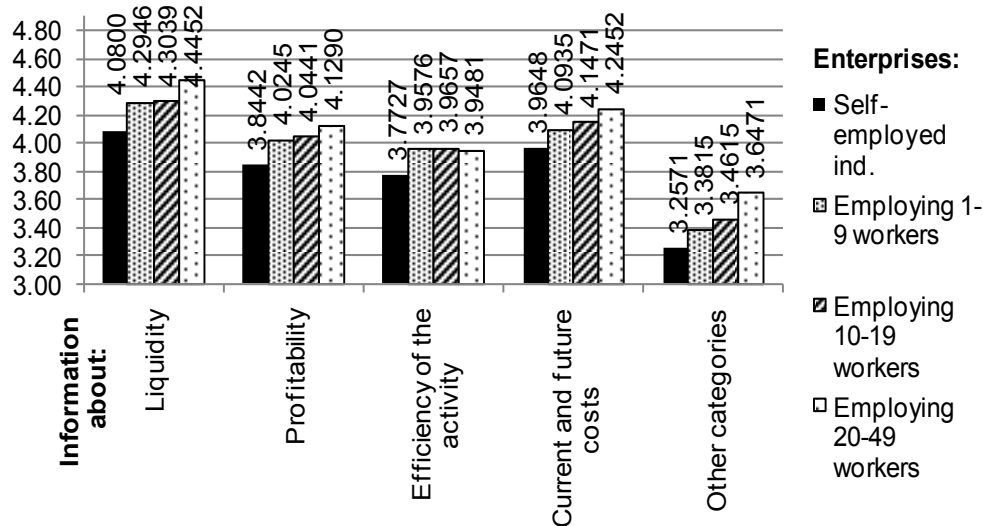
**Table 5: Relationships between entrepreneur's information needs and assumed factors in short-term management**

<u>Information about</u>	<u>Liquidity</u>	<u>Profitability</u>	<u>Efficiency</u>	<u>Demand for cash</u>	<u>Inco-me</u>	<u>Cost</u>	<u>Other</u>
<b>Factor</b>	<b>Size of enterprise</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	32.86	23.59	36.27	17.44	16.84	18.72	26.06
<b>Dependence</b>	Exists	Exists	Exists	Non-existed	Non-existed	Exists	Exists
<b>T-Czuprow</b>	0.0971	0.0822	0.1021	-	-	0.0733	0.1391
<b>C-Pearson</b>	0.1778	0.1513	0.1867	-	-	0.1351	0.2506
<b>Correlation</b>	Weak	Weak	Weak	-	-	Weak	Weak
<b>Factor</b>	<b>Entrepreneur's education</b>					<b>Critical <math>\chi^2 = 28.41</math></b>	
<b>Empir. <math>\chi^2</math></b>	26.48	32.14	35.16	49.84	20.37	22.99	22.14
<b>Dependence</b>	Non-existed	Exists	Exists	Exists	Non-existed	Non-existed	Non-existed
<b>T-Czuprow</b>	-	0.0846	0.0886	0.1057	-	-	-
<b>C-Pearson</b>	-	0.1760	0.1841	0.2182	-	-	-
<b>Correlation</b>	-	Weak	Weak	Weak	-	-	-
<b>Factor</b>	<b>Life-cycle phase</b>					<b>Critical <math>\chi^2 = 23.54</math></b>	
<b>Empir. <math>\chi^2</math></b>	16.96	17.04	23.28	29.91	13.32	24.63	19.42
<b>Dependence</b>	Non-existed	Non-existed	Non-existed	Exists	Non-existed	Exists	Non-existed
<b>T-Czuprow</b>	-	-	-	0.0866	-	0.0782	-
<b>C-Pearson</b>	-	-	-	0.1706	-	0.1545	-
<b>Correlation</b>	-	-	-	Weak	-	Weak	-
<b>Factor</b>	<b>Nature of business</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	7.34	15.38	6.17	13.20	8.91	15.20	12.28
<b>Dependence</b>	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed
<b>Factor</b>	<b>Company's age</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	7.78	9.74	6.93	8.21	10.01	10.53	7.64
<b>Dependence</b>	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed

Source: Own elaboration

The research clearly shows that the larger enterprise the more attention is paid to all types of information (Diagram 3). Differences in the assessment range are from 4 % in the case of information about the demand for cash to 10 % for information about liquidity.

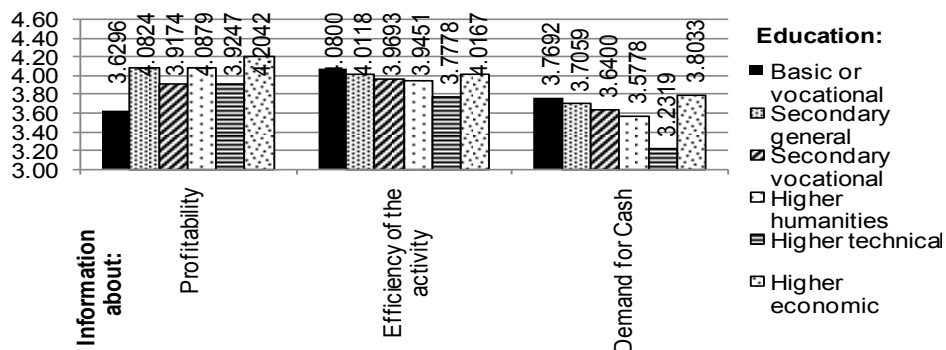
**Diagram 3: Distribution of assessment of information in short-term management according to size of enterprise**



Source: Own elaboration

The distribution of assessments depending on the entrepreneurs' education is more diverse (Diagram 4). The highest rating for all dependent information is provided by entrepreneurs with higher economic education, while the lowest one by managers with higher technical education. Relatively high ratings are also issued by entrepreneurs with basic and vocational education. From the three presented types of information the information about profitability (3.6296 – 4.2042) is the most important and the information about the demand for cash (3.2319 – 3.8033) is the least important.

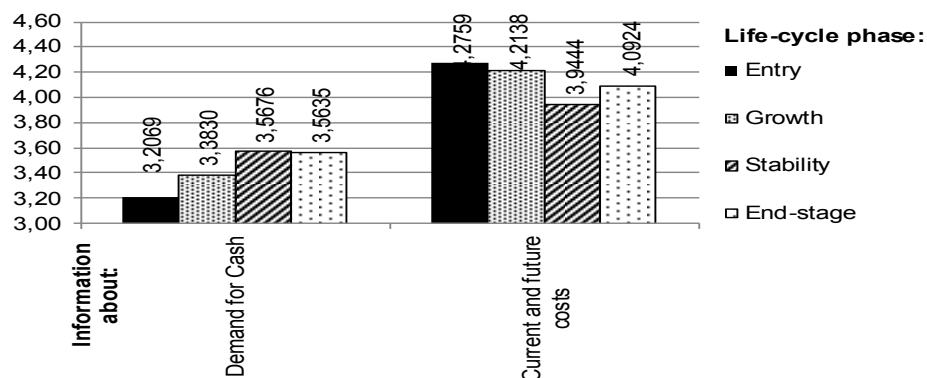
**Diagram 4: Distribution of assessment of information in short-term management according to manager's education**



Source: Own elaboration

The life-cycle phase of the company affects the information needs only in two areas (Diagram 5). For all companies the information about the level of costs is more important. This is particularly true for companies in the entry and growth phases. In the stability and end-stage phases, the entrepreneurs are especially interested in the demand for cash.

**Diagram 5: Distribution of assessment of information in short-term management according to life-cycle phase**



Source: Own elaboration

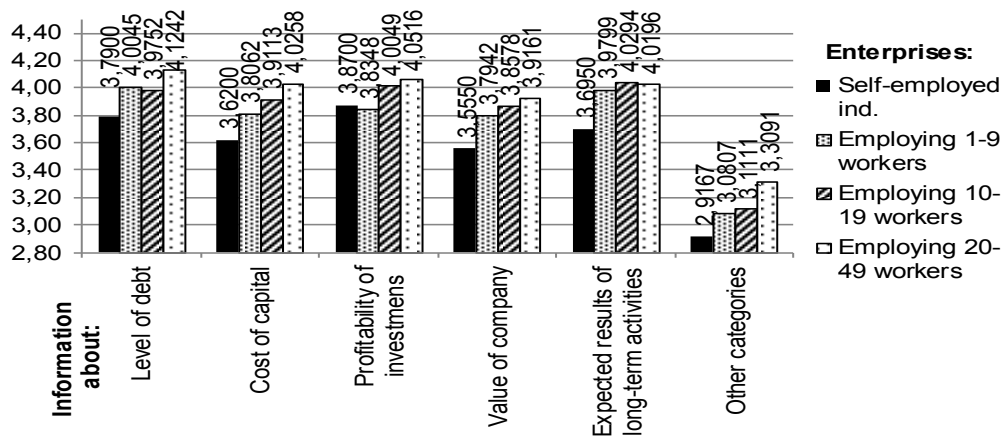
Table 6 presents calculations of the Chi-square statistic and contingency coefficient for selected factors in long-term management. The entrepreneurs' information needs, as for the short-term, depend on the size of the enterprise (information about: level of debt, cost of capital, profitability of investments, value of company, expected results of long-term activities and about other categories), education of the manager (information about: level of debt, cost of capital, value of company, financial condition and expected results of long-term activities) and the life-cycle phase of the company (information about: the value of a company and expected results of long-term activities). In addition, the correlation for the nature of business is diagnosed. It concerns information about: level of debt and about financial condition in relation to company's competitors and sector. The assessment of information in the long-term management confirms the trend that the larger size of an enterprise determines larger information needs of its manager (Diagram 6). Differences in ratings range from 4.7 % (information about the profitability of investments) to 8.7 % (information about the level of debt). The information about the level of debt is the most important for the largest enterprises. For the smallest one: about profitability of investment. For the entrepreneurs with higher education, information about the expected results of long-term activities is the most important. The information about the financial condition is the most significant for the managers with lower education (Diagram 7). The assessments of the other types of information are more diversified. However, the less demand for information is shown for the entrepreneurs with vocational (technical) education, regardless of the level. Diagram 8 shows that the importance of information about the company's value increases with the phase of the life cycle. For information about the results of long-term activities, the situation is reversed. The demand for both kinds of information is very similar for the companies in growth and stability phases of the life-cycle.

**Table 6: Influence of endogenous factors on entrepreneur's information needs in long-term management**

<u>Information about</u>	<u>Level of debt</u>	<u>Cost of capital</u>	<u>Prof. of investments</u>	<u>Value of company</u>	<u>Financial condition</u>	<u>Expected results</u>	<u>Other</u>
<b>Factor</b>	<b>Size of enterprise</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	30.62	27.39	26.33	22.75	16.15	22.07	22.55
<b>Dependence</b>	Exists	Exists	Exists	Exists	Non-existed	Exists	Exists
<b>T-Czuprow</b>	0.0940	0.0886	0.0869	0.0808	-	0.0796	0.1386
<b>C-Pearson</b>	0.1723	0.1627	0.1597	0.1487	-	0.1466	0.2497
<b>Correlation</b>	Weak	Weak	Weak	Weak	-	Weak	Weak
<b>Factor</b>	<b>Entrepreneur's education</b>					<b>Critical <math>\chi^2 = 28.41</math></b>	
<b>Empir. <math>\chi^2</math></b>	41.83	52.24	18.16	46.42	37.90	49.97	24.84
<b>Dependence</b>	Exists	Exists	Non-existed	Exists	Exists	Exists	Non-existed
<b>T-Czuprow</b>	0.0968	0.1078	-	0.1017	0.0919	0.1055	-
<b>C-Pearson</b>	0.2005	0.2223	-	0.2102	0.1907	0.2178	-
<b>Correlation</b>	Weak	Weak	-	Weak	Weak	Weak	-
<b>Factor</b>	<b>Life-cycle phase</b>					<b>Critical <math>\chi^2 = 23.54</math></b>	
<b>Empir. <math>\chi^2</math></b>	14.03	21.35	23.46	31.70	21.22	26.49	13.02
<b>Dependence</b>	Non-existed	Non-existed	Non-existed	Exists	Non-existed	Exists	Non-existed
<b>T-Czuprow</b>	-	-	-	0.0888	-	0.0812	-
<b>C-Pearson</b>	-	-	-	0.1748	-	0.1603	-
<b>Correlation</b>	-	-	-	Weak	-	Weak	-
<b>Factor</b>	<b>Nature of business</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	26.90	9.18	10.32	15.48	20.50	9.81	9.97
<b>Dependence</b>	Exists	Non-existed	Non-existed	Non-existed	Exists	Non-existed	Non-existed
<b>T-Czuprow</b>	0.0881	-	-	-	0.0767	-	-
<b>C-Pearson</b>	0.1618	-	-	-	0.1413	-	-
<b>Correlation</b>	Weak	-	-	-	Weak	-	-
<b>Factor</b>	<b>Company's age</b>					<b>Critical <math>\chi^2 = 18.55</math></b>	
<b>Empir. <math>\chi^2</math></b>	11.57	13.75	16.43	9.17	11.61	8.80	5.7
<b>Dependence</b>	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed	Non-existed

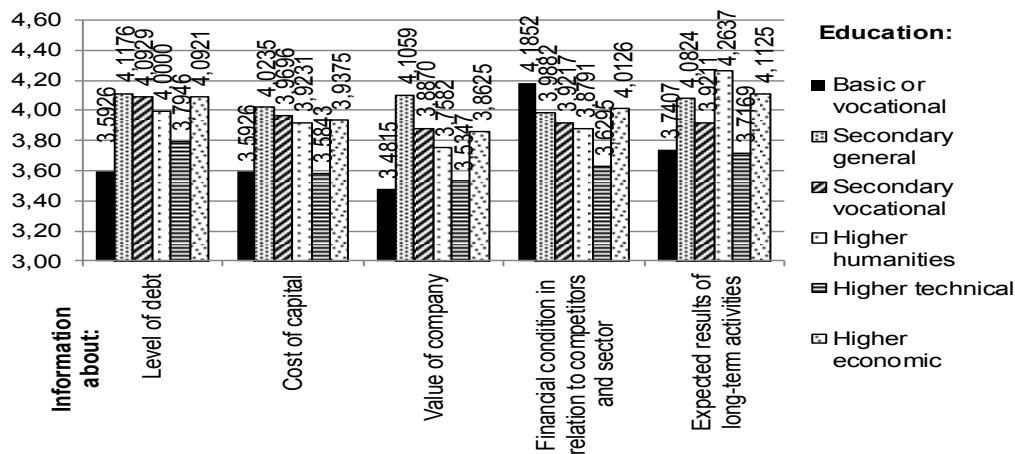
*Source: Own elaboration*

**Diagram 6: Distribution of entrepreneurs' assessment of information in long-term management according to size of enterprise**



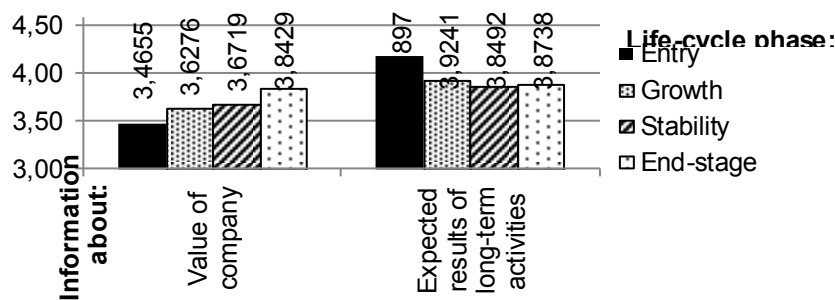
Source: Own elaboration

**Diagram 7: Distribution of assessment of information in long-term management according to entrepreneur's education**



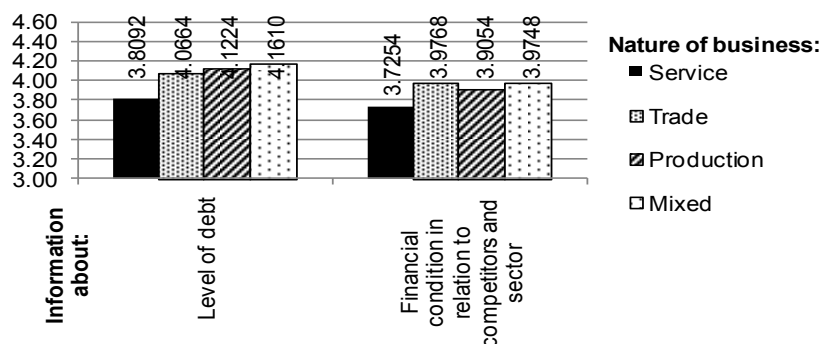
Source: Own elaboration

**Diagram 8: Distribution of assessment of information in long-term management according to life-cycle phase**



Source: Own elaboration

**Diagram 9: Distribution of entrepreneurs' assessment of information in long-term management according to nature of business**



Source: Own elaboration.

The research (Diagram 9) shows that the information about level of debt (4.1610) and about financial condition in relation to competitors (3.9748) is the most needed by companies leading mixed activities (ca. 4.01 and 3.95). Not much lower level of information needs is reported by production and trading companies. However, this information is definitely less important for service companies (3.8092 and 3.7254, respectively).

## Conclusions

Entrepreneurs assessed the usefulness of financial information in the short-term management area highly. The scores exceed 4.0 in the five-point scale. For the long-term management ratings are a bit lower. It means that demand for financial information is significant and confirms the widely recognized notion that small entities are primarily focused on survival in the short term. Information about liquidity is the most important for the managers. It shows that for small companies, the maintenance of liquidity is a key problem in the short time. In this area, the information about current and future costs is the second on the list of entrepreneurs' priorities. Information about revenues and about the profitability was also assessed as relatively high. It means that in the short term, in addition to the maintenance of liquidity, managers also try to maximize profit.

Information about the level of debt and about the expected financial results of long-term activities is the most significant in the strategic management. Entrepreneurs rated the usefulness of information about cost of capital as relatively low. In their opinion, the information about the financial condition in relation to the competitors and the business sector is more significant.

The hypothesis about the relationship between information needs and selected factors was only partially verified positively. In the short-term management these needs depend on the size of the enterprise, the entrepreneur's education and the life-cycle phase in which the company is. In addition to these factors, the dependence on the nature of business is diagnosed for long-term management. In all cases of dependence the strength of correlation is weak. The demand for financial information does not depend on the company's age.

There is a noticeable trend that managers of larger enterprises assess the usefulness of each types of financial information as higher. This usefulness is evaluated highly by managers with higher economic and humanistic education. Financial information seems to be underestimated by managers with vocational education regardless of its degree. Only some types of information needs depend on the life-cycle phase and on the nature of business.

The presented results of the research are important characteristics of the small enterprise sector in Poland. They describe the information needs reported by their managers and the factors shaping them on the basis of a representative empirical study. They complement the gap in the management knowledge about information conditions of decision making in small enterprises. The knowledge about the managers' information needs and the demand for financial information in management can be used in the future studies. First direction of them concerns comparative research of different enterprise sectors, countries and economies. Second is related to assessment of the entrepreneurship's maturity and the role of financial information among other classes of information in decision-making. But from the author's point of view, the most important is third direction of possible studies. Namely, results of this research have also a utilitarian value, especially for accounting practice. Its results may be the basis for a review, construction and adaptation of information systems in small enterprises. Direction of the next research should be an analysis of the correlation between the scope of information provided by currently used accounting systems in the SME sector in Poland and diagnosed information needs of entrepreneurs. It would give the reasons for recommendation of appropriate changes in small business accounting systems to adjust them better to changing internal and external conditions of small enterprise management.

## References

- Aczel, A. D., Soundepardian, J. (2009). *Complete Business Statistics*. New York: McGraw-Hill/Irwin.
- Block, S. (1997). Capital Budgeting Techniques Used by Small Business Firms in the 1990s. *The Engineering Economist*, 42 (2).
- Brusa, A., Tarnawa, A. (2011). *Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce 2009-2010 (Report About Condition of Small and Medium Sized Enterprise Sector in Poland 2009-2010)*. Warszawa: PARP [in Polish].
- Chang, C. H., Lee, C. W. J. (1992). Information Acquisition as Business Strategy. *Southern Economic Journal*, vol. 58 (3).
- Corner, D. C. (1967). *Financial Incentive in the Small Business*. Social and Economic Administration, no. 5.
- Holmes, S., Kelly, G., Cunningham, R. (1991). The Small Firm Information Cycle: a Reappraisal. *International Small Business Journal*, vol. 4.
- Jaworski, J. (2011). The Use of Financial Information in Small Business Management in Poland. Opinions and Recommendations of Experts. Research Results. In: A. Adamik, S. Lachiewicz (Eds.) *Methods and Concepts of Small and Medium-Sized Enterprises Management*, Łódź: Technical University of Łódź Press.
- Jaworski J. (2012), *Informacja finansowa w zarządzaniu małym przedsiębiorstwem. Potrzeby – źródła – wykorzystanie (Financial Information in Small Business Management. Needs – Sources – Usage)*, CeDeWu, Warszawa 2012 [in Polish].
- Kieżun, W. (1998). *Sprawne zarządzanie organizacją (Efficient Management of Organization)*. Warszawa: SGH [in Polish].
- Luoma, G. A. (1967). Accounting Information in Managerial Decision-Making for Small Manufacturers. *Research Monograph*, no. 2, New York.: National Association of Accountants.
- Lybaert, N. (1998). The Information Use in a SME: its Importance and Some Elements of Influence. *Small Business Economics*, vol. 10.

- Nogalski, B., Karpacz, J. (2011). Identyfikacja źródeł informacji wykorzystywanych w praktyce zarządzania małymi i średnimi przedsiębiorstwami (Identification of Information Sources Used in Practice of Management of Small and Medium-sized Enterprises. In: S. Lachiewicz, M. Matejun (Eds.) *Zarządzanie rozwojem małych i średnich przedsiębiorstw (Management of Development of Small and Medium-sized Enterprises)*. Warszawa: Wolters Kluwer [in Polish].
- Peacock, R. W. (1987). The Financial Effects of Business Bankruptcies. *Accounting Forum*, 10 (3).
- Pell, M. J., Wilson, N. (1996). Working Capital and Financial Management Practices in the Small Firm Sector. *International Small Business Journal*, no. 14 (2).
- Pielaszek, M. (2008). Pożądane kierunki zmian w rachunkowości małych i średnich przedsiębiorstw. Wyniki badań ankietowych SKwP w latach 2004-2006 (Desirable Directions of Changes in Accounting for Small and Medium Enterprises. Polish Accountant's Association Survey in 2004-2006). *Zeszyty Teoretyczne Rachunkowości*, tom 47 (103) [in Polish].
- Proctor, M. D., Canada, J. R. (1992). Past and Present Methods of Manufacturing Investment Evaluation: A Review of the Empirical and Theoretical Literature. *The Engineering Economist Fall*, vol. 38, iss. 1.
- Ross, S. A., Westerfield, R. W., Jordan, B. D. (1999). *Finanse przedsiębiorstwa (Corporate Finance)*. Warszawa: Dom Wydawniczy ABC [in Polish].
- Ustawa z dnia 2.07.2004 r. o swobodzie działalności gospodarczej (UoSDZG), Dz. U. z 2007r., nr 155, poz. 1095 z późniejszymi zmianami (Act of July 02/2004 about freedom of economic activity).