

Impact of Financing Strategy on Financial Constraints: Evidence from Manufacturing and Service Enterprises

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Abstract:

The aim of the study was to examine the relationship between financing strategies and financial constraints in Polish conditions. Ultimately, the entire sample was divided into industrial and service companies. This division allows us to check what relationships exist in a specific industry.

The research panel sample consists of 150 companies listed on the Warsaw Stock Exchange in Poland. The study covered the years 2008 - 2018. We use a number of indicators that originate from the literature on financial strategies and financial constraints. Our results show that there is a link between financing strategies and financial constraints for Polish companies. We prove that there are statistically significant differences between sectors in terms of financial constraints. We find a relationship between the level of the NWC and the financing strategy and financial constraints, but only for manufacturing companies. Our results show that the directions of correlation indicate that processing companies with financial constraints use an aggressive financing strategy. This study contributes to the existing literature dealing with the impact of funding strategies on financial constraints. We would like to point out that there is little research on this subject. Our study gives significant results, because we do not find any study on this subject for Polish conditions.

Keywords: financial constraints; financial strategy; working capital; manufacturing industry; service industries.

JEL Classification: G30; L10; M20.

Introduction

All companies operating on the market should have a properly developed business financing strategy. A financing strategy is to determine the right composition of funding sources to achieve the company's strategic goal. There are many alternative forms of financing, so enterprises must select them in an optimal way so as to maximize the return on equity, maintain financial liquidity and security at a satisfactory level. The business financing strategy is one of the key decision-making areas of the company. It allows to determine the size of the company's current and future financial needs, as well as to determine the most favorable sources of financing in terms of inputs and effects necessary to meet these needs (Puraghajan 2014).

Businesses with financial constraints need to be more proactive in managing working capital and liquidity policies. Thus, we suppose that choosing the right financing strategy for financially limited companies is statistically significant. However, we do not find empirical studies confirming our hypothesis. That is why in this article we analyze the relationship between financial constraints and financing strategies.

The article consists of five parts. The following section discusses the problem taking into account the impact of financial constraints on individual measures of how companies operate on foreign markets. We are not looking into a link of financial constraints with given indicators for Poland. The next part presents the research sample and its brief characteristics. The subsequent part provides a description of the research methodology with a detailed explanation of the possibility of using statistical tests. Then the results are described. The last section draws conclusions for Polish enterprises.

1. Literature Review

Three types of business financing strategies have been distinguished in the literature. These include conservative, moderate and aggressive strategies. The aggressive strategy enables a full use of opportunities created by the financial market. It is characterized by the acceptance of a higher level of risk and maximization of profit in the long run. The conservative strategy for financing business is the opposite of an aggressive strategy. By implementing a conservative strategy, the company aims to minimize risk, maintain their financial credibility and market position. Enterprises applying this strategy use internal sources of business financing. The moderate funding strategy is an intermediate strategy between an aggressive and a conservative one (Weinraub 1998).

Looking at a conservative strategy, the company can assume a safe level of working capital. Then the conservative working capital policy will be the result of low risk and low return on investment. This attitude is suitable for new companies operating in an uncertain environment and with an uncertain demand curve (Awopetu 2012). The company invests its assets with a minimal use of loans or other short-term liabilities (Temptime 2016, Bei and Wijewardana 2012). In contrast, the company may adopt an aggressive policy of working capital. Then the return on investment will be higher but the risk will increase proportionally (Awopetu 2012). Bei and Wijewardana (2012) confirm these considerations in their analysis. They studied the impact of various types of working capital policy practices that affect performance, liquidity, profitability, and capacity utilization to varying degrees. The survey covered 155 companies. Researchers confirm the identification of different results on liquidity, profitability and performance in relation to another type of NWC policy.

Financial constraints have been the subject of many empirical studies since the 1980s. They concerned mainly the analysis of the relationship between company investments and the availability of internal financing (Musso 2007). Hennessy and Whited (2007) state that financial constraints are related to companies' decisions regarding investment and capital structure. Acquiring external sources of financing may cause financial restrictions resulting from various market frictions. In addition, Almeida, Capello and Weisbach (2004) prove that the emerging financial friction prevents companies from fully financing investment opportunities. As a result, some of the companies operating on the market are financially limited while experiencing financial restrictions. Financial constraints can be estimated on the basis of various indicators. These include created by Schauer *et al.* (2019) FCP Index (2019), Size-Age (SA) index developed by Hadlock and Pierce (2010) as well as WW Index formulated by Whited and Wu (2006).

Altaf and Ahmad (2019) studied the impact of net working capital financing on companies' results and the impact of financial restrictions on NWC financing. The study conducted on a sample of 437 Indian non-financial companies concerned the period 2007-2016. Referring to financial constraints, the authors stated that companies that are less financially constrained can finance most of their working capital through short-term debt. The authors indicate that companies with smaller financial constraints will be able to finance a larger part of working capital using short-term liabilities.

A different approach is presented in the study by Kaushik and Chauhan (2019). The main purpose of their work was to examine the relationship between working capital management and the results of Indian companies and their financial constraints. The study covered the period of 2008–2016. Financial constraints were defined on the basis of variables: size, ability to pay dividends and generated cash flows. Companies with a size smaller than the median of all companies on the market, not paying dividends in the given period and generating less cash flow than the median in the sector were considered financially constrained. The author points out that taking into account financial constraints does not give unequivocal results for companies operating on the Indian market.

Ding, Guariglia and Knight (2013) conducted an analysis of the relationship between investments in working capital and financial constraints. The sample included 116,000 Chinese companies. Studies show that active working capital management can have a positive impact on mitigating the effects of financial constraints on permanent investments.

Dhole *et al.* (2019) conducted research on Austrian companies as for bad working capital management efficiency and financial constraints. This research is interesting because financial sources define them on the basis of sentences in companies' financial statements. It is on the first study of the use of privileged little difficulty. A detailed word list has already been developed by Bodnaruk *et al.* (2015). They suggest that effective management of working capital companies will face in the future.

Some interesting solutions are provided by Bukalska (2020) This is an important study for us because it is based on Polish conditions. The aim of the study was to test the sensitivity of cash flows from investments and financial constraints in the conditions of excessive confidence of managers. The author claims that companies managed by over-confident managers have a lower level of financial constraints. The research involved 145 companies that were not listed on the stock exchange in 2010-2016. The Kaplan and Zingales index from 1997

(KZ), the Whited and Wu index from 2006 (WW) and the SA index (Hadlock and Pierce 2010) were used to determine the financial constraints. The author emphasizes there are restrictions in matching these indicators for Polish conditions.

In addition, there are no detailed data for the Polish market. This study makes an important contribution to the science of financial constraints and financing strategies. There are studies based on a combination of financial constraints and working capital, but for Polish conditions this is a novelty. We do not find any mention of the impact of financing strategy on financial constraints in the literature. The article brings new information both for Polish conditions and for the whole world. The research on this subject is worth noting.

2. Methodology

In this study, we analyze companies that are listed on the Warsaw Stock Exchange. The research sample comes from the Notoria database. This database contains a collection of financial statements of Polish companies. All the companies present in the database were divided as belonging to the manufacturing or service industry. This division was made on the basis of descriptions of the characteristics of individual companies also available in this database. We excluded companies for which no data was given in the reports. Thus, companies with complete data remain in the sample. In this way, we minimize a certain range of error in the results obtained. Of all 519 companies from the Notoria database, we are left with a sample of 150 companies. Due to the need for accurate calculations, the study concerned the period 2006 - 2018. This is how our database was created; it consists of panel annual data for 150 companies from Poland. The panel sample included 1950 firm-year observations (data from 150 companies and covering the period of 13 years).

The analyses conducted in the study were processed using the Statistica program. All the variables that were subject to the study can be divided into three groups: dependent, independent, and grouping variables. We started the study by checking whether there is a link between individual financial data and a financing strategy, and the strength of the relationship. According to the presented literature, we examined individual hypotheses this time for the Polish market highlighting changes in the manufacturing and services sectors.

We defined the financing strategy at the net working capital (NWC) level. A net working capital level is calculated as the difference between current assets and short term liabilities and this difference is scaled by total assets. In order to assess the financing strategy implemented by the surveyed companies, the values of indicators (NWC) were referred to the average values of sector (AVS) indicators, taking into account the division into manufacturing and services.

Table 1. Net working capital – type of strategy

Condition	Strategy
NWC > NWC averages in the sector	Conservative
NWC = NWC averages in the sector	Moderate
NWC < NWC averages in the sector	Aggressive

Source: Author's own elaboration based on Jędrzejczak-Gas (2017).

One of the determinants for identifying the company's financing strategy is net working capital. Companies maintaining net working capital above the average sector value were classified as applying a conservative financing strategy. In the opposite situation, it was assumed that the company applies an aggressive strategy within the scope of net working capital management. However, companies with NWC values equal to the average value of the sector index were defined as implementing a moderate strategy.

In our study, we use alternatively different models to determine individual financial constraints that are consistent with the literature. These models were also used by other researchers. The first variable is KZ designated as:

$$KZ = -1,002 * CF_{t-1} + 3,139 * LEV_{t-1} - 39,368 * DIV - 1,315 * CH_{t-1} \quad (1)$$

where: CF variable is defined as cash flows from operating activities by total assets at the beginning of the period.

The variable LEV or financial leverage was defined as debt by total assets at the beginning of the period.

The formula will also include DIV or dividend. The variable assumes values 1 if the company pays dividends and 0 if it does not pay dividends. In turn, CH (cash holdings) is all cash resources divided by total assets at the beginning of the period. The higher value of KZ index, the bigger financial constraints.

Another WW indicator is:

$$WW = -0,091*CF_{t-1}+0,021*LEV_{t-1}-0,044*SIZE_{t-1}+0,102*SG_{t-1}-0,035*SF_{t-1} \quad (2)$$

where: CF variable was determined by sales revenues plus depreciation by total assets at the beginning of the period. The variable LEVERAGE was defined as debt by total assets at the beginning of the period. Similar to previous indicators, the SIZE variable was determined by the natural logarithm of total assets at the beginning of the period. The variable SG means the increase in sales in the entire sector by total assets at the beginning of the period and the variable SF means the increase in sales in a given company by total assets at the beginning of the period; the higher value of WW index the bigger financial constraints.

The next indicator is FCP:

$$FCP = -0,123*SIZE_{t-1} - 0,024* IC_{t-1} - 4,404*ROA_{t-1} - 1,716* CH_{t-1} \quad (3)$$

where: the SIZE variable was determined by the natural logarithm of total assets at the beginning of the period. We used logarithmic transformation to achieve a closer proximity to normality. Interest coverage (IC) calculated as pre-tax profit and interest (EBIT) over interest expenses. ROA is the return on assets or the net profit divided by total assets at the beginning of the period. In turn, cash holdings (CF) are all cash resources divided by total assets at the beginning of the period. The higher value of FCP index the bigger financial constraints.

The next indicator is SA:

$$SA = -0,737 * SIZE_{t-1} + 0,043 * SIZE_{t-1}^2 - 0,040 * AGE \quad (4)$$

where: the SIZE variable was determined by the natural logarithm of the total assets at the beginning of the period. We used logarithmic transformation to achieve a closer proximity to normality. The AGE variable was determined on the basis of the company's average number of years on the market. This value was subjected to logarithmic transformation to achieve a distribution close to the normal distribution. The SA index is specific because the company's financial constraints decreases as it increases. The higher value of SA index the smaller financial constraints. As described by Hadlock and Pierce (2010), it is an inverted index. Then we examined the IC index determined as:

$$INTEREST\ COVERAGE = EBIT / FINANCIAL\ COSTS \quad (5)$$

We calculate the ratio by dividing the profit before interest and taxation by financial costs. The indicator measures the risk of bankruptcy. We can therefore conclude that there are also financial restrictions. The larger the ratio, the harder it would be to pay off its debt (Baños-Caballero *et al.* 2014). Companies with an interest coverage rate above the median sample are likely to be less financially constrained. The higher value of IC index the smaller financial constraints. The last indicator that determined financial constraints was the DPR:

$$DPR = DPS / EPS \quad (6)$$

We calculate the dividend payout ratio as the ratio of dividend per share (DPS – Dividend Per Share) to the company's net profit per share (EPS – Earning Per Share). This relationship describes how much of the profit is paid as dividends. Following Fazzari (1988), we assume that companies not paying dividends or paying out to a small extent (below the average sector value) are financially constrained. The higher value of DPR index the smaller financial constraints.

In the first part of this article, we will examine the significance level of the differences in resource constraints between industry and services.

Hypothesis

H1: We assume that there are differences in financial constraints between the manufacturing and service industries.

We will verify the hypothesis that there are no statistically relevant differences in the distribution of constraints in both sectors, *i.e.* manufacturing and service, using the Mann-Whitney *U* test. We use the test to compare two independent groups, *i.e.* industry and services. In the next part of our article, we move on to examine the relation between NWC level and financial constraints. Based on the literature review, we formulate the hypothesis:

H2: There is a negative relationship between NWC and financial constraints. We assume that the higher NWC level the lower financial constraints are.

To verify the *Hypothesis H2*, we use the Pearson correlation test. The quantitative variable remains unchanged (NWC). This time, we use financial constraints as the second variable.

The next part of the study is crucial and provides the most important results for Polish conditions. In this section, we examine the impact of financing strategies (determined by NWC level) on financial constraints. Not finding the answer to this question in the literature, we formulate our own hypothesis:

H3: The financial constraint of companies depends on the financing strategy. We assume that higher financial constraints are connected with an aggressive strategy.

To verify the *Hypothesis H3*, we use the Kruskal-Wallis test. We use it for comparing more than two independent samples. The possibility of using the test is confirmed by the fact that we have three groups of companies following different financing strategies (aggressive, conservative and moderate). We compare the level of financial constraints measured by KZ, WW, SA, FCP, IC and DPR. Additionally, we include the industry (manufacturing and service). A detailed description of the variables has been included in Table 2.

Table 2. Variables for studying the relationship of financing strategies and financial constraints

Dependent variables	Definition
KZ	KZ index used by Kaplan Zingales (1997)
WW	WW index used by Whited and Wu (2006)
FCP	FCP index used by Klepsch and Elsas (2019)
SA	SA index used by Hadlock and Pierce (2010)
IC	Interest Coverage used by Baños-Caballero, García-Teruel and Martínez-Solano (2016)
DPR	Dividend payout ratio used by Fazzari (1988)
Independent variables	Definition
NWC	Net working capital level (%)
Financing strategy	Aggressive, moderate, conservative

Source: Author's own elaboration.

We divided the variables used in the study into dependent and independent variables. The dependent variables are all the measures of financial constraints listed in Table 2. The independent variables are NWC and a financing strategy.

3. Research Findings

By examining the relationship between financing strategies and financial constraints in two sectors, manufacturing and services, we can expect differentiation. Shares of funds allocated by companies to finance operations are different in manufacturing and services. Therefore, the data for the entire sample of 150 enterprises was averaged. The study led to such results. At the beginning we present a number of descriptive statistics obtained from the analyzed sample.

Table 3. Descriptive statistics

Variable	Mean	Median	Minimum	Maximum	St.dev.
Manufacturing					
KZ	5.41	5.63	0.59	8.68	2.33
WW	0.14	0.15	-0.26	0.30	0.09
FCP	-1.31	-1.45	-2.62	5.86	0.91
SA	-2.45	-2.67	-3.53	2.12	0.92
IC	8.90	5.02	-0.92	54.38	10.46
DPR	0.26	0.22	-0.58	0.79	0.27
NWC	0.15	0.15	-0.23	0.62	0.14

Service					
KZ	13.61	14.05	7.27	19.07	6.01
WW	0.29	0.28	0.0	0.47	0.09
FCP	-0.28	-1.43	-3.44	3.75	5.77
SA	-2.65	-2.80	-3.50	-0.53	0.71
IC	4.32	3.25	-24.96	24.49	9.01
DPR	0.15	0.05	-0.05	0.92	0.21
NWC	0.14	0.14	-1.07	0.69	0.31

Source: Author's own elaboration.

The data presented in Table 3 shows descriptive statistics of the analyzed variables. The table has been divided into two parts. The first part shows the results from the manufacturing industry, while the second part shows the service industry. Net Working capital is higher for the manufacturing industry with a lower standard deviation. This means that manufacturing companies implement a more conservative strategy.

Analyzing individual indicators that are measures of financial constraints, one can observe a significant difference in the results obtained for companies from the manufacturing sector compared to service companies. The median for KZ manufacturing is 5.63 while for KZ services it is 14.05. This means that financial constraints are higher for the service industry. The average WW index for companies operating in manufacturing reaches the value of 0.14 while for the service sector it is at the level of 0.29. And again, the WW index shows higher financial constraints for service companies. Not surprising, that FCP index is higher for service industry, which shows that service companies have bigger financial constraints. A smaller difference in average can be seen in the case of the SA index. However, SA is lower for the service industry which again shows higher financial constraints for these companies (service). The same relation is as for IC and DPR index – IC and DPR index is lower for the service industry, which also proves higher financial constraints for service companies.

On the other hand, by analyzing indicators defining financing strategies NWC one can notice a smaller variation in average sector values. The average net working capital in the manufacturing sector is 0.15 and in the services sector 0.14. However, taking into account the minimum and maximum values of these indicators, different results can be observed. Net working capital reached values in the range: [-0.23; 0.62] for industrial enterprises and [-1.07; 0.69] for service companies. There are not many outliers in the sample tested. This is confirmed by similar mean and median values. A certain discrepancy is only in the case of the IC indicator. The results deviate from the average value by as much as 10.67 in manufacturing and by 9.00 in services. This introduces some uncertainty as to the interpretation of the results. In other cases there are slight deviations.

From the above statistics, it can be concluded that the sample of 150 enterprises is diversified in terms of financial constraints measured by various indicators. The nature of the operations of the companies in the sample has a large impact on this. We proceed to the verification of the hypotheses.

Verification of Hypothesis 1

In this part of the study we check the significance of differences in financial constraints between sectors. The assumptions for the Mann-Whitney *U* statistical test have been met. Our data is presented in the Table 4 by sector.

Table 4. U Mann Whitney test results

Variable	Z	p
KZ	5.36	*0.000
SA	2.23	*0.025
WW	7.79	*0.000
FCP	0.29	0.771
DPR	-2.55	*0.011
IC	-0.29	0.767

Note: * the results are significant with $p < 0.05$;

Source: Author's own elaboration.

We notice significant differences in the level of financial constraints measured by the KZ, WW, SA and DPR ratios between sectors. However, statistically significant differences do not occur in the IC and FCP indices. Based on the adopted level of $\alpha = 0.05$ and the Mann-Whitney test statistic with $p < 0.05$, we can assume the *Hypothesis 1* that there are statistically significant differences between the industry and services sector in terms of financial constraints. Using the KZ, WW, SA and DPR index to measure financial constraints one would be able to state that there is statistical significance in concluding that service companies show bigger financial constraints.

Verification of Hypothesis 2

In this part of the study, we check the relationship of individual financial constraints and measure having a significant impact on the financing strategy, *i.e.* NWC. It is important that the data shows diversity depending on the sector, which the literature did not provide even for foreign companies. It is worth saying that the assumptions for performing the Pearson correlation statistical test have been met. Our data is presented in the Table 5 divided by sector.

Table 5. Correlation between financial constraints and net working capital level

Variable	Manufacturing			Services		
	Pearson	Z	p	Pearson	Z	p
KZ NWC	-0.27	-1.78	0.075	0.10	1.02	0.309
WW NWC	-0.31	-3.51	*0.000	-0.28	-2.00	*0.046
FCP NWC	0.27	3.08	*0.002	0.18	1.83	0.068
SA NWC	0.24	2.73	*0.006	-0.03	-0.22	0.827
IC NWC	-0.20	-2.23	*0.026	-0.31	-2.22	*0.027
DPR NWC	0.14	1.99	*0.046	0.04	0.37	0.713

Note: * the results are significant with $p < 0.05$;

Source: Author's own elaboration.

The data in the Table 5 presents the results of a correlation study between a net working capital (NWC) level and financial constraints. We used the Pearson correlation coefficient to examine the correlation. We assume significance at the level of $p < 0.05$. We see a significant difference between the results in the manufacturing and the service industry. Therefore, these sectors were analyzed separately.

In the manufacturing industry, there are more cases that financial constraints measured by different indexes are significantly correlated with NWC (five out of six cases: WW, SA, FCP, IC and DPR), while in the service industry there are only two cases (WW and IC). We can confirm the hypothesis that there is a relationship between financial restrictions and net working capital.

In the manufacturing industry, financial constraints measured by WW index show a negative correlation with NWC. This means that higher NWC the lower WW index (and the lower WW index the lower financial constraints). NWC shows a positive correlation coefficient with SA index and DPR index – the higher NWC the higher SA and DPR index (and the lower financial constraints). This is in line with our expectations. But a positive relation between FCP and NWC and a negative one between IC and NWC is quite surprising as this relation shows that the higher NWC the higher financial constraints. And this is contradictory to our expectations.

In the service industry, there is a negative relation between WW index and NWC and a negative relation between IC index and NWC. The first relation is in line with our expectations as it shows that higher NWC is accompanied by lower WW index (and lower financial constraints). Using IC index we show that higher NWC is accompanied by a lower IC ratio (and higher financial constraints).

Verification of Hypothesis 3

In this part of the study, we examine the relationship between financial constraints and financing strategies, which are determined on the basis of net working capital. The service companies with NWC values higher than 0.14 were classified as using a conservative financing strategy, lower than 0.14 - an aggressive financing strategy and equal to 0.14 - a moderate financing strategy. In contrast, the following division was used for industrial companies: $NWC > 0.15$ - conservative strategy, $NWC < 0.15$ - aggressive strategy, $NWC=0.15$ - moderate strategy. It is important that we distinguish diversity by sector, which the literature has not done yet. The obtained data are presented in the Table 6 divided by sector. The table shows the mean of the financial constraint ratios for each strategy and the results of the Kruskal- Wallis test.

Table 6. Results of comparing the financing strategies and financial constraints

Financing strategy	Aggressive	Conservative	Moderate	H Kruskal-Wallis test	df	p-value
Services						
KZ	3.50	1.50	5.12	2.400	2	0.121
WW	13.67	14.50	6.50	1.886	2	0.389
FCP	10.67	16.83	10.50	4.234	2	0.120
SA	10.58	16.67	12.00	3.880	2	0.144
IC	16.13	10.29	17.00	3.948	2	0.139
DPR	13.67	13.54	12.25	0.061	2	0.970
Manufacturing						
KZ	11.38	8.00	12.58	1.776	2	0.183
WW	35.88	24.30	34.43	6.233	2	*0.042
FCP	22.15	19.37	20.29	13.141	2	*0.001
SA	24.62	36.69	28.50	6.431	2	*0.044
IC	38.88	21.57	33.79	13.296	2	*0.001
DPR	28.52	27.85	48.07	8.052	2	0.118

Note: * the results are significant with $p < 0.05$;

Source: Author's own elaboration.

For manufacturing, differences are observed between the financial constraint of WW and strategies ($H = 6.233$; $df = 2$; $p < 0.05$): aggressive (35.88), conservative (24.30), moderate (34.43). It can be concluded that the aggressive strategy (the highest average) has the greatest impact on the financial constraints of WW.

There are also differences between the financial constraint of FCP and strategies ($H = 13.141$; $df = 2$; $p < 0.01$): aggressive (22.15), conservative (19.37), moderate (20.29). The conservative strategy (highest average) has the greatest impact on the financial constraints of FCP.

There are statistically significant differences between the financial constraint of IC and strategies ($H = 12.296$; $df = 2$; $p < 0.01$): aggressive (38.88), conservative (21.57), moderate (33.79). The aggressive strategy (the highest average) has the greatest impact on the financial constraints of IC. The data shows that aggressive financing strategy is strongly connected with financial constraints but only for the manufacturing industry. This is especially true for WW and FCP index.

But for the service industry we find no differences in the relations between financing strategies and financial constraints. It seems that in the service industry the financing strategy is not a sign of financial constraints. It means that aggressive strategy in the service industry is somewhat typical of this industry and does not show financial constraints.

Conclusion

Based on the analysis of the results obtained, we can conclude that there are many more statistically significant relationships in the manufacturing industry compared to the service sector. Thus, we prove that it is reasonable to analyze these sectors separately.

The manufacturing companies show a lower level of financial constraints – regardless the way the financial constraints are measured (by KZ, WW, FCP, SA, IC or DPR index). But the relation between NWC and financial constraints, or between a financing strategy and financing constraints is not so clear.

We expected that there were statistically significant differences between sectors in financial constraints. Our assumptions are met if we measure financial constraints with KZ, WW, SA, and DPR index. It also proves that the sectors show their own specificity.

We expected that higher financial constraints are connected with a lower level of NWC. We find that our expectations are fulfilled if the financial constraints are measured with KZ, WW, SA, and DPR index for manufacturing companies. It is true for the service industry if the financial constraints are measured with WW index.

We expected that higher financial constraints are connected with a more aggressive financing strategy. We find this true but only for the manufacturing industry, and only if the financial constraints are measured by WW, FCP and IC index. We find no relation for the service industry.

In conclusion, we state that the financing strategy affects financial constraints but only in the manufacturing industry. The manufacturing is less financially constrained (comparing to service sector) but its NWC level and

financing strategies much more sensitive to financial constraints. And at this point the question arises why is this happening? We propose to analyze carefully a number of factors and examine which factor determines these restrictions to the greatest extent. It will bring great value for science and enable improvement of companies' activity. Our research turns out to be important for the Polish market. We do not find any study on this subject for Polish conditions. So can we determine the most important determinants of financial constraints in the manufacturing and services for our conditions? We leave the answer to this question for future research.

Finally, we can also state that while implementing different measures of financial constraints, one can get different results and the issue of measuring financial constraints still needs further research.

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