

OPERATING CYCLE AND NONPROFIT ORGANIZATIONS EFFICIENCY

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ABSTRACT. Depending on the kind of realized mission, sensitivity to risk, which is a result of the decision about liquid assets investment level, NPOs should choose that level and resulting from it, the liquid assets financing. The kind of organization influences the best strategy choice. The organization choosing between various solutions in liquid assets needs to decide what level of risk is acceptable for its owners and capital suppliers. That choice results with financing consequences, especially at cost level. It is a basis for considerations about relations between risk and expected benefits from the liquid assets decision and its results on financing costs for both nonprofit or profit organizations. The paper shows how, in author's opinion, decisions about liquid assets management strategy and choice between the kind of taxed or non-taxed form, inflow the risk of the organizations and its economical results during the realization of its main mission. Comparing the theoretical model with empirical data for 1000+ Polish nonprofit organization results, we suggest that nonprofit organization managing teams choose higher risky aggressive liquid assets solutions than for-profit organizations.

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INTRODUCTION

As it is widely believed, the advantage of commercially driven businesses is more effective management than in government controlled organizations (Nowicki 2004, p. 29). In this paper we study the nonprofit organization liquid assets management. That group of organizations faces specific incumbent needs, which are the result of higher unemployment and other similar factors (Zietlow, 2010, p. 238-248). The main financial aim of the

nonprofit organization (NPO) is not the maximization of organization value but the best realization of the mission of that organization (Zietlow 2007, p. 6-7). But for the assessment of financial decision NPO, analogous rules like for for-profit organizations should be used (Brigham 2006, p. 524-536). One of that rules is the fact that the higher risk is linked with the higher cost of capital rate which should be used to evaluate the future results of decisions made by nonprofit organizations. That is also positively linked with the level of efficiency and effectiveness in realization of the NPO mission. Cost of financing net liquid assets (working capital) depends on the risk included to the organization strategy of financing and/or investment in liquid assets.

The managing team of non-profit organizations has a lot of important reasons for which their organization should possess some money resources reserves even if current interest rate is positive (Kim 1998). The reasons may be classified into three main groups: the necessity of current expenses financing (transactional reason), fear of future cash flows uncertainty (precaution reason), future interest rate level uncertainty (speculative reason). Liquid assets, especially cash, understood as money resources in a safe organization, are not a source of any or small interests. Maintaining liquidity reserve in the non-profit organization is a result of belief that the value of lost income on account of interest will be recompensed by the benefits for incumbents of non-profit organization (Kim 1998, Lee 1990). The hypothetical benefits are from higher profitability that organization mission will be completed, thanks to adequate liquidity level. There is a point corresponding with the optimal (critical) liquidity level, up to which the amount of liquid assets in the non-profit organization may be increased at a profit (Washam 1989, p.28; Henderson 1989, Lee 1990).

Financing of the liquid assets has its cost depending on risk linked with liquid assets strategies used by the financed organization. If we have higher risk, we will have higher cost of financing (cost of capital) and as a result other organization efficiency growth. There are no free lunches. The cost of liquid assets financing depends on the kind of financing, then on the level of liquid assets in relation to sales, and last but not least, on risk exposition.

According to the kind of financing we have three strategies: an aggressive strategy with the most risky but the cheapest, mainly short-term financing, a compromise strategy with compromise between risk and costs of financing or a conservative strategy with the most expensive long-term financing and with the smallest level of risk. Choosing between various levels of liquid assets in relation to sales, we use one of the three strategies: a restrictive strategy when management use the most risky but the cheapest, the smallest possible level of liquid assets; a moderate strategy when management moderate between risk and costs of holding liquid assets; or a

flexible strategy when management use the most expensive and rather high levels of liquid assets wanting to hedge the organization before risk of shortage of liquid assets.

Risk exposition depends on the position of the organization in its business branch. If the risk exposition should be higher, then it is smarter to choose the more flexible and more conservative solutions in order to have better results. It works in opposite direction; also, the safe organization with near to monopoly positions can use more restrictive and more aggressive strategies to have better results.

STRATEGIES IN LIQUID ASSETS INVESTMENT AND LIQUID ASSETS FINANCING

Current assets investment strategies are the set of criteria and specific code of conduct revolved around attaining the multiplication of efficiency by using money donors for the realization of the mission. Organization managing team implement such strategies into practice while making the crucial decisions concerning obtaining sources for financing current and future needs and defining ways and directions of utilization of these sources. At the same time it takes into consideration the following: opportunities, limitations and business environment that are known to the board today. It is possible to apply one of the three liquid assets financing strategies (or their variations): aggressive, compromise or conservative. Aggressive strategy consists in the significant part of the organization fixed demand and the whole organization variable demand on liquidity-linked financing sources coming from short term financing. The Compromise version of liquid assets financing strategy aims at adjusting the needed financing period to the duration of period for which the organization needs these assets. As a result, the fixed share of current assets financing is based on long term capital. However, the variable share is financed by short term capital. The conservative liquid assets financing strategy leads to the situation where both the fixed and the variable level of current assets are maintained on the basis of long term financing.

Liquid assets financing strategy to risk relation There is a relationship between the three above mentioned approaches based on the relation between expected benefit and risk. In the case of capital providers for organizations that have introduced this specific strategy, that is usually linked with diversified claims to the rate of return from the amount of capital invested in the organization. The connection of these claims with the chosen way of financing may be insignificant. Nevertheless, it might also be

important to such a considerable degree that it will have an effect on the choice of strategy.

Example. XYZ organization managing team is pondering over the choice of current assets financing strategy. It needs to be chosen the best strategy provided by the aim, which is to minimize cost of financing liquid assets and maximize organization efficiency. Fund capital/engaged capital ratio is 40% $\{E/(E+D) = 40\%$ }. Anticipated annual sales revenues (CR) are 2000. Forecasted earnings before interest and taxes (EBIT) for XYZ will amount to about 50% of sales revenues (CR). Fixed assets (FA) will be going for around 1400, current assets (CA) will be constituting almost 30% of forecasted sales revenues (CR), property renewing will be close to its use (NCE = CAPEX), and changes in relations of net liquid assets constituents will be close to zero and might be omitted ($\Delta NWC = 0$). The organization may implement one of the three liquid assets financing strategies: the conservative one with such a relation of long run debt to short run debt that ($D_s/D_l = 0,1$), compromise one ($D_s/(D_l) = 1$) or the aggressive one ($D_s/(D_l) = 2$). Accounts payable will be equal to 50% of current assets.

It is necessary to consider the influence of each strategy on the cost of organization financing capital rate and on organization efficiency.

In the first variant, one must assume that capital providers seriously consider, while defining their claims to rates of return, the liquid assets financing strategy chosen by the organization they tied in.

Let us also assume that the correction factor CZ depends on D_s/D_l relation.

CZ1 variant. We assume here that capital providers take into consideration the organization liquid assets financing strategy while defining their claims as regards the rates of return. Of course, aggressive strategy is perceived as more risky and therefore depending on investors risk exposition level; so, they tend to ascribe to the financed organization applying aggressive strategy an additional expected risk premium. To put it simply, let us assume that ascribing the additional risk premium for applied liquid assets financing strategy is reflected in the value of β coefficient. For each strategy, the β coefficient will be corrected by the corrective coefficient CZ corresponding to that specific strategy in relation to the situation $D_s/D_l = 0$. XYZ risk premium will amount to $9\% \times (1+CZ)$ in relation of fund capital to foreign long term capital and $12\% \times (1+CZ)$ in relation of fund capital to short term debt level. Risk free rate is 4%, rate of return on market portfolio is 18%.

If our organization is a representative of A sector for which the non-leveraged risk coefficient $\beta_u = 0.77$. On the basis of so called Hamada relation [Hamada 1972], we can estimate the fund capital cost rate that is

financing that organization in case of each of the three strategies in the first variant.

$$\beta_1 = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) = 0.77 \times (1 + 0.81 \times 0.66) = 1.19 \quad (1)$$

where: T – effective tax rate, here the assumption is taken that the NPO uses the tax-exempt debt and as a result there have about the same effective cost of debt as for profit organizations [Brigam 2000, 30-5,7,20], D – organization financing capital coming from creditors ($D_s + D_l$), E – organization financing capital coming from owners, β – risk coefficient, β_u – risk coefficient linked with assets maintained by the organization (for an organization that has not applied the system of financing by creditors capital), β_1 – risk coefficient for an organization that applying the system of financing by creditors capital (both the financial and operational risks are included).

For aggressive strategy (CZ = 0.2):

$$\beta_{AGR} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + CZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.2 = 1.43 \quad (2)$$

where: CZ – risk premium correction factor dependent on the net liquid assets financing strategy

For compromise strategy (CZ = 0.1):

$$\beta_{CMP} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + CZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.1 = 1.31 \quad (3)$$

For conservative strategy (CZ = 0.01):

$$\beta_{CNS} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + CZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.01 = 1.2 \quad (4)$$

Thanks to that information, we can calculate cost of fund capital rates for every variant.

$$\begin{aligned} k_{e_{AGR}} &= \beta \times (k_M - k_{RF}) + k_{RF} = 1.43 \times 14\% + 4\% = 24\% \\ k_{e_{CMP}} &= \beta \times (k_M - k_{RF}) + k_{RF} = 1.31 \times 14\% + 4\% = 22.3\% ; \\ k_{e_{CNS}} &= \beta \times (k_M - k_{RF}) + k_{RF} = 1.2 \times 14\% + 4\% = 20.8\% \end{aligned} \quad (5)$$

where: k – rate of return expected by capital donors and at the same time (from organization's perspective) – organization cost of financing capital

rate, k_e – for capital coming from owners (cost of fund capital rate), k_M – for average rate of return on typical investment on the market, k_{RF} – for risk free rate of return whose approximation is an average profitability of Treasury bills in the country where the investment is made.

Hence, since the risk premium for XYZ accounts for $9\% \times (1+CZ)$ in relation of fund capital to foreign long term capital, we can get long term debt cost rates:

$$\begin{aligned} k_{d_{1AGR}} &= 24\% - 9\% \times 1.2 = 13.2\% ; \\ k_{d_{1CMP}} &= 22.3\% - 9\% \times 1.1 = 12.4\% ; \\ k_{d_{1CNS}} &= 20.8\% - 9\% \times 1.01 = 11.7\% \end{aligned} \quad (6)$$

where: k_{dl} – for long term debt rate, i.e. capital coming from long term creditors,

And consequently for short term:

$$\begin{aligned} k_{d_{sAGR}} &= 24\% - 12\% \times 1.2 = 9.6\% \\ k_{d_{sCMP}} &= 22.3\% - 12\% \times 1.1 = 9.1\% \\ k_{d_{sCNS}} &= 20.8\% - 12\% \times 1.01 = 8.7\% \end{aligned} \quad (7)$$

where: k_{ds} – for short term debt, i.e. capital coming from short term creditors,

As a result, cost of capital rate will amount to:

$$CC = \frac{E}{E+D_l+D_s} \times k_e + \frac{D_l}{E+D_l+D_s} \times k_{dl} \times (1-T) + \frac{D_s}{E+D_l+D_s} \times k_{ds} \times (1-T) \quad (8)$$

However, for each strategy, this cost rate will be on another level (calculations in the table below).

Table 1 Cost of capital and changes in organization efficiency (or economic efficiency nonprofit organization) depending on the choice of strategy:

	Aggressive	Compromise	Conservative
Cost of capital financing organization (CC)	14.8%	14.2%	<u>13.9%</u>
Organization efficiency growth (ΔV)	5057	5342	<u>5494</u>

Source: hypothetical data

As it is shown in the table, cost of organization financing capital rates are different for different approaches to liquid assets financing. The lowest rate is observed in conservative strategy.

$$CC_{CNS} = \frac{680}{1700} \times 20.8\% + \frac{340}{1700} \times 11.7\% \times (1 - 0.19) + \frac{680}{1700} \times 8.7\% \times (1 - 0.19) = 13.9\% \quad (9)$$

What results in the highest expected growth of organization efficiency:

$$\Delta V_{CNS} = FCF_o + \frac{FCF_{(1..n)}}{CC} = -1700 + \frac{1000}{0.139} = 5494 \quad (10)$$

In the CZ2 variant, we will also assume that capital providers, while defining their claims to rates of return, take into consideration the organization liquid assets financing strategy to a lesser extent. Obviously, the aggressive strategy is perceived as more risky and therefore, depending on their risk exposition, they tend to ascribe an additional risk premium for an organization that implemented this type of strategy.

For conservative strategy, XYZ risk premium is equal to $9\% \times (1 + CZ)$ in relation of fund capital to long term debt and $12\% \times (1 + CZ)$ in relation of fund capital to short term debt. Risk free rate of return is 4%, rate of return on market portfolio is 18%.

Our NPO is a representative of a sector for which non-leveraged risk coefficient $\beta_u = 0.77$.

On the basis of Hamada relation, we may estimate the cost rate of fund capital financing this organization in case of each of the three strategies.

We are given all the necessary information to assess the cost of organization financing capital rate for the organization applying the given type of liquid assets financing strategy.

For each strategy the organization efficiency growth will be on another level (calculations in the table below).

Table 2 Organization efficiency growth depending on the choice of strategy in variant CZ2

	Aggressive	Compromise	Conservative
Organization efficiency growth (ΔV)	5905	5819	5541

Source: hypothetical data

As it is shown in table 2, taking into consideration the risk premium resulting from implementation of a certain liquid assets financing strategy has an additional impact on the organization financing capital. Organization financing capital cost rates are different for different approaches to liquid assets financing. In this variant, the lowest level is observed in aggressive strategy. As a consequence, the highest organization efficiency growth is characteristic for this type of strategy.

In the third CZ3 variant, we also assume that capital providers, to a lesser extent, consider, while defining their claims to rates of return, the liquid assets financing strategy chosen by the organization they invested in.

For conservative strategy, XYZ risk premium amounts to $9\% \times (1+CZ)$ in relation of fund capital to long term debt level and $12\% \times (1+CZ)$ in relation of fund capital to short term debt. Risk free rate is 4%, rate of return on market portfolio is 18%.

Our NPO is a representative of sector W for which non-leveraged risk coefficient $\beta_u = 0.77$. On the basis of Hamada relation we may estimate organization financing fund capital cost rate in case of each of the three strategies. We have all the necessary information to assess the organization financing capital cost for the organization applying the given type of liquid assets financing strategy. For each strategy, capital cost rate will be on another level.

Table 3 Organization efficiency growth resulting on the choice of strategy in the CZ3 variant

	Agressive	Compromise	Consevative
Organization efficiency growth (ΔV)	5599	5653	5546

Source: hypothetical data

As it is shown in table 3, taking into consideration the risk premium resulting from implementation of a certain liquid assets financing strategy has an additional impact on the organization financing capital. Organization financing capital cost rates are different for different approaches to liquid assets financing. In this variant, the lowest level is observed in aggressive strategy. As a consequence, the highest organization efficiency growth is characteristic for this type of strategy.

Liquid assets investment strategies and cost of financing Next it is necessary to consider the influence of each strategy of investment in the liquid assets on the rate of cost of capital financing organization and that influence on the organization efficiency.

In the first variant, one must assume that capital providers seriously consider, while defining their claims to rates of return, the liquid assets investment strategy chosen by the organization they invested in.

Let us also assume that the correction SZ function graph connected with strategy choice could be even and linear.

SZ1 variant. We assume here that capital providers take into consideration the organization's liquid assets investment strategy while defining their claims as regards the rates of return. Of course, restrictive strategy is perceived as more risky and therefore depending on investors

risk exposition level, they tend to ascribe to the financed organization applying restrictive strategy an additional expected risk premium. To put it simply, let us assume that ascribing the additional risk premium for applied liquid assets investment strategy is reflected in the value of β risk coefficient. For each strategy, the β risk coefficient will be corrected by the corrective coefficient SZ corresponding to that specific strategy in relation to the CA/CR situation.

The risk free rate is 4%, and rate of return on market portfolio is 18%. If our NPO is a representative of A sector for which the non-leveraged risk coefficient $\beta_u = 0.77$. On the basis of Hamada relation, we can estimate the fund capital cost rate that is financing that organization in case of each of the three strategies in the SZ1 variant.

$$\beta_l = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) = 0.77 \times (1 + 0.81 \times 0.66) = 1.19 \quad (11)$$

where: T – effective tax rate, D – organization financing capital coming from creditors (a sum of short term debt and long term debt $D=D_s+ D_l$), E – organization financing capital coming from owners of the organization, β – risk coefficient, β_u – risk coefficient for an assets of the organization that not use debt, β_l – risk coefficient for an organization that applying the system of financing by creditors capital (here we have both asset and financial risk).

For restrictive strategy, where CA/CR is 0.3; the SZ risk premium is 0.2:

$$\beta_{RES} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + SZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.2 = 1.43 \quad (12)$$

Where: SZ – risk premium correction dependent on the liquid assets investment strategy.

In similar way we calculate risk coefficients for moderate and flexible strategies. For moderate strategy, where CA/CR is 0.45 the SZ risk premium is 0.1:

$$\beta_{MOD} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + SZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.1 = 1.31 \quad (13)$$

For flexible strategy, where CA/CR is 0.6 the SZ risk premium is 0.01:

$$\beta_{FLX} = \beta_u \times \left(1 + (1-T) \times \frac{D}{E} \right) \times (1 + SZ) = 0.77 \times (1 + 0.81 \times 0.66) \times 1.01 = 1.2 \quad (14)$$

Using that information we can calculate cost of fund capital rates for each liquid assets investment strategies:

$$k_{E_{RES}} = \beta_l \times (k_M - k_{RF}) + k_{RF} = 1.43 \times 14\% + 4\% = 24\%; k_{E_{MOD}} = 22.3\%;$$

$$k_{E_{FLX}} = 20.8\%; \quad (15)$$

where: k – rate of return expected by capital donors and at the same time (from organization perspective) – organization cost of financing capital rate, k_e – for cost rate of the fund capital, k_{dl} – for long term debt rate, k_{ds} – for short term debt rate, k_m – for average rate of return on typical investment on the market, k_{RF} – for risk free rate of return whose approximation is an average profitability of treasury bills in the country where the investment is made.

In a similar way, we can calculate the risk premiums for XYZ alternative rates. We know that long term debt rates differ for $9\% \times (1+SZ)$ in relation of fund capital to long term debt. From that we can get long term debt cost rates for each alternative strategy:

$$k_{D_{RES}} = k_{E_{RES}} - 9\% \times 1.2 = 13.2\%; k_{D_{MOD}} = 12.4\%; k_{D_{FLX}} = 11.7\%; \quad (16)$$

Next we can calculate the risk premiums for XYZ alternative cost of short term rates. We know that short term debt rates differ for $12\% \times (1+SZ)$ in relation of cost of fund capital rates to short term debt rates. From that we can get short term debt cost rates for each alternative strategy. For restrictive strategy:

$$k_{D_{s_{RES}}} = k_{E_{RES}} - 12\% \times 1.2 = 9.6\%; k_{D_{s_{MOD}}} = 9.1\%; k_{D_{s_{FLX}}} = 8.7\%; \quad (17)$$

And from such information is possible to calculate cost of capital and organization efficiency change (results presented in the table 4. below).

Table 4 Organization efficiency growth depending on the choice of liquid assets investment strategy

Liquid assets investment strategy	Restrictive	Moderate	Flexible
Organization efficiency growth (ΔV)	<u>5057</u>	4821	4420

Source: hypothetical data

Rates of the cost of capital financing the organization and organization efficiency changes are different for different approaches to liquid assets investment. The lowest rate: $CC = 13.1\%$; is observed in flexible strategy because that strategy is linked with the smallest level of risk, but the highest organization efficiency growth is linked with restrictive strategy of investment in net liquid assets. In the next, $SZ2$, variant, we will also

assume that capital providers, while defining their claims to rates of return, take into consideration the organization's net working investment strategy to a lesser extent. Obviously, the restrictive strategy is perceived as more risky than the moderate and flexible one. Depending on their risk exposition, they tend to ascribe an additional risk premium for an organization that implemented this type of strategy. Investors in SZ2 variant, have stronger risk exposition than in SZ1 situation. In the table 5, there are calculations for variant SZ2. For each strategy the cost of capital rate CC will be on another level and resulting from it organization efficiency growth.

Table 5 Organization efficiency growth depending on the choice of strategy of investment in liquid assets in variant SZ2

Liquid assets investment strategy	Restrictive	Moderate	Flexible
Organization efficiency growth (ΔV)	1445	<u>4821</u>	4470

Source: hypothetical data

In the table 6, there are calculations for variant SZ3. For each strategy the organization efficiency growth will be on another level.

Table 6 Organization efficiency growth depending on the choice of strategy of investment in liquid assets in the SZ3 variant

Liquid assets investment strategy	Restrictive	Moderate	Flexible
Organization efficiency growth (ΔV)	-564	3692	<u>4470</u>

Source: hypothetical data

As it is shown in table 6, taking into consideration the risk premium resulting from implementation of a certain liquid assets investment strategy has an additional impact on the cost of capital. Organization financing capital cost rates are different for different approaches to liquid assets investment strategy. In this SZ3 variant, the lowest level of the cost of capital is observed in flexible strategy. But as a consequence, the highest organization efficiency growth is also characteristic for this type of strategy, what is different to results from variants SZ1 and SZ2. Here we have the highest level of risk exposition, and as a consequence, the organization management wanting to maximize the organization value, need to prefer a safer solution, like flexible strategy.

Liquid assets investment-financing strategies and cost of financing The last part of our consideration is the influence of each liquid assets strategy

both from investment and financing perspective, their influence on cost of financing and that influence on the organization efficiency.

SZCZ1 variant. In the first SZCZ1 variant, capital suppliers risk exposition is on the smallest level. That situation is presented in table 7.

Table 7 Organization efficiency growth depending on the choice of liquid assets investment and financing strategies

Liquid assets investment and financing strategy	Restrictive-Aggressive	Restrictive-Conservative	Flexible-Aggressive	Flexible-Conservative
Organization efficiency growth (ΔV)	<u>4710</u>	4589	3668	3998

Source: hypothetical data

As it is shown in the table 7, rates of the cost of capital financing the organization are different for different approaches to liquid assets investment. The lowest rate: CC = 14%; is observed in flexible-conservative strategy because that strategy is linked with the smallest level of risk; but the highest organization efficiency growth is linked with restrictive-aggressive strategy because in variant CZSZ1 we have the organization with the smallest level of risk exposition.

In the next, CZSZ2, variant, capital suppliers risk exposition is on the moderate level. That situation is presented in table 8.

Table 8 Organization efficiency growth depending on the choice of liquid assets investment and financing strategies

Liquid assets investment and financing strategy	Restrictive-Aggressive	Restrictive-Conservative	Flexible-Aggressive	Flexible-Conservative
Organization efficiency growth (ΔV)	1445	1216	<u>4369</u>	4087

Source: hypothetical data

As it is shown in the table 8, rates of the cost of capital financing the organization are different for different approaches to liquid assets investment. The lowest rate: CC = 13.2%; is observed in flexible-aggressive strategy because that strategy is linked with the smallest level of risk. The highest level of cheaper short term debt and also the highest organization efficiency growth is linked with flexible-aggressive strategy because in variant CZSZ2 we have the organization with the moderate level of risk exposition, as previously noted as better restrictive-aggressive is here too

risky, in the third CZSZ3 variant. In the first SZCZ1 variant, capital suppliers risk exposition is on the smallest level. That situation is presented in table 9.

Table 9 Organization efficiency growth depending on the choice of liquid assets investment and financing strategies

Liquid assets investment and financing strategy	Restrictive-Aggressive	Restrictive-Conservative	Flexible-Aggressive	Flexible-Conservative
Organization efficiency growth (ΔV)	-564	-658	<u>4133</u>	4043

Source: hypothetical data.

As it is shown in the table 9, rates of the cost of capital financing the organization are different for different approaches to liquid assets investment. The lowest rate: $CC = 13.7\%$; is observed in flexible-aggressive strategy because that strategy is linked with the smallest level of risk and the highest level of cheaper short term debt and also the highest organization efficiency growth is linked with flexible-aggressive strategy because in variant CZSZ3 we have the organization with the moderate level of risk exposition, as previously noted as better restrictive-aggressive is here too risky.

Depending on the business type that the given organization is doing, sensibility to liquid assets financing method risk might vary a lot. Character of business also determines the best strategy that should be chosen: whether it will be the conservative strategy (situation closer to the first variant), or the aggressive one (situation closer to the first variant), or maybe some of the transitional variants similar to the compromise strategy. The best choice is that with the adequate cost of financing and the highest organization efficiency growth. This depends on the structure of financing costs. The lower the financing cost, the higher effectiveness of organizations activity measured by the growth of its value. The organization choosing between various solutions in liquid assets needs to decide what level of risk is acceptable for her owners and capital suppliers. That was shown in the solutions presented in this paper. If the risk exposition is higher, a safer solution will be preferred. That choice results with cost of financing consequences. That relation between risk and expected benefits from the liquid assets decision results on financing costs for the organization and its liquid assets investment should be as close as possible to the highest organization growth situation.

EMPIRICAL DATA

Data collected about Polish NPO show their liquidity strategies for 2009 and 2010 years. If we compare it with for profit Polish organizations results, we can see that the average length of operating cycle and net operating cycle (cash cycle) is shorter than for average for profit organizations. Observation of NPO data can inform us about interesting customs of NPO managing teams. Generally speaking, based on the data collected from Opolskie area in Poland, for 2009 and 2010 years, we can see that the average operating cycle for such a group of organizations vary and differ, in 2009 was short (about 5,89 days for 2009 data, with standard deviation = SD = 22,69 days) and in 2010 was shorter (about 3,59 days for 2010 data, with SD = 9,35 days).

Table 10 Operating cycle indicators for OPOLSKIE (POLAND) nonprofit organizations in 2009 and 2010

	Operating cycle	Cash cycle	ROA	ROE
M 2009	5,89	-1,47	-169,96%	7,15%
SD 2009	22,69	33,55	1272,09%	533,11%
M 2010	3,59	-7,1	2,21%	1258,21%
SD 2010	9,35	50,34	120,35%	11463,45%

Source: own calculation for 80 selected nonprofits in OPOLSKIE [Bopp 2011]

where: SD = standard deviation, M = arithmetic mean

The selected data show that there is no hard link between the operating cycle and ROA and ROE results. Operating cycle policy must be first of all a slave of the best realization of the mission of the nonprofit organization. The economic results are important, but they are second or even third in the line of the aims.

Table 11 Liquid assets indicators for Polish nonprofit organizations in 2009 and 2010

-	CR	assets	CA	Current Ratio	Quick Ratio	Cash Ratio	INV
number of observations	2283	2292	2294	1473	1471	1467	2291
Mean	483699	834 187	201034	1092	526	474	6284
SD	1636492	13073895	1315942	23069	5201	4998	46105
median	76979	24732	19062	5.6	5.42	4.54	-
winsorized mean	693825	352948	172751	63	62	56.3	-

truncated (trimmed) mean	141493	58492	34793	12	12	10.21	-
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-	AR	Cash equivalents	E	D _l	D _s	ROA	ROE
number of observations	2290	2292	2294	2293	2293	2266	2247
Mean	32043	172066	688121	11026	47152	-0.57	-0.04
SD	605949	1291873	12967335	112797	312128	23	23
median	-	13902	17037	-	607	0	0.30
winsorized mean	11318	116842	207907	-	35605	1	1
truncated (trimmed) mean	2282	25330	37026	-	6822	0	0.31

Source: calculation for 1000+ selected nonprofits in Poland [Bopp 2011]

where: SD = standard deviation, M = arithmetic mean,

AR = accounts receivable, E = fund capital,

D_l = long-term debt, D_s = short-term debt, INV = inventories.

According to the data received from 1000+ Polish NPOs, the average NPO investment in liquid assets is more aggressive than in for profit organizations. Average Polish NPO accounts receivable period for 2009-2010 data is about 23 days (5.8 days using winsorized mean and 5.8 days using truncated mean). Average Polish for profit accounts receivable period for 2009-2010 data is about 46 days [Dudycz 2011]. Average Polish NPO inventory period for 2009-2010 data is about 4.7 days. Average Polish for profit inventory period for 2009-2010 data is about 39 days.

That observation suggests that here, in Polish NPO case, we have figure 6 situation. Is it small risk exposition or rather smaller aversion of managing teams? Unfortunately, it seems that the second one was true.

CONCLUSIONS

As it was shown in our findings, depending on the kind of realized mission, sensitivity to risk, NPOs should choose liquid assets investment level and resulting from that, the liquid assets financing. The kind of organization influences the best strategy choice. If exposition to risk is greater, the level of inventories, accounts receivable and operating cash should be higher, too.

If the exposition to that risk is smaller, the net liquid assets strategy will be more aggressive, and the level of inventories will be smaller. The organization choosing between various solutions in liquid assets needs to decide what level of risk is acceptable for its owners and capital suppliers. That choice results with financing consequences, especially in cost level. It is a basis for considerations about relations between risk and expected benefits from the liquid assets decision and its results in financing costs for both nonprofit or for profit organizations. The decisions about liquid assets management strategy and the choice between the kind of taxed or non-taxed form inflow the risk of the organizations and its economical results during the realization of its main mission. Comparing the theoretical model with empirical data for 1000+ Polish nonprofit organization results, suggests that nonprofit organization managing teams choose higher risky aggressive liquid assets solutions than for-profit organizations. That observation suggest that here, in Polish NPO case, we have figure 6 situation with the smallest risk exposition solution in the managing team's mind. But in fact, there is probably not a smaller risk exposition but rather a smaller aversion of the managing teams.

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