FINANCE DECISIONS, NET WORTH AND SHAREHOLDERS' WEALTH

Dipen Roy
Professor of Commerce
University of North Bengal
E-mail: dipenroynbu@gmail.com

Abstract

Decision rules for taking finance decisions are worked out in the light of the avowed objective of wealth maximization. The paper points to the necessity of identifying the relative importance of different finance decisions in terms of their contribution to shareholders' wealth. The study has the policy relevance in respect of delegating the most important finance functions upon the most efficient finance executives. The empirical analysis based on thirty years' time-series data of Indian companies reveals that capital budgeting and working capital decisions have a relatively higher influence on the firms' net-worth. The paper recommends that the firms should assign the highest importance to capital budgeting and delegate this responsibility on the most efficient finance executives.

Keywords: Shareholders' wealth, Capital budgeting decisions, Working capital decisions

1. Introduction

The finance managers are to take the number of finance decisions such as investment decision, capital structure decision, working capital decision, dividend decision, and so on in a corporate house. They are presumed to take each of these decisions in the light of the principles of financial management, which guide to realising the objective of shareholders' wealth maximization. At the time of consulting the literature of financial management, it seems that, at least in theory, all the decisions are equally important and have almost equivalent sensitivity to maximization of shareholders' wealth. After all, none of the empirical researches on this topic has ever attempted to assess the relative importance of the respective finance decisions in terms of their contribution to the wealth of the shareholders. Once it is explored that some of the finance decisions have a greater effect on enhancing shareholders' wealth, this will definitely make the finance managers devote considerable time and attention to the specific finance function than concentrating on other finance functions, which have comparatively lower sensitivity to wealth creation (or destruction) for shareholders.

Once it is made known that a specific function such as capital budgeting has the greatest effect on the shareholders' wealth, the corporate houses will seek to appoint the most efficient and experienced managers for this decision-making. Indeed, management should assign greater importance to a decision, which has the greatest sensitivity to wealth and

involves very high costs in mending decisions. Some finance decisions are there, which, if mistaken, cannot be amended, while another one can be amended easily. The question is - which of the finance decisions has the highest sensitivity to shareholders' wealth? This empirical research is trying to explore the answer to this question.

Wealth effects of various finance decisions have been examined in many academic investigations. Unfortunately, the efforts of the researchers in this line are fragmented; each research concentrates on examining the effect of a single finance function on shareholders' wealth. The literature survey presented below points to this deficiency. This paper points to the necessity of counting each of the finance decisions as a part of an inter-related system, as advocated by Katz and Kahn (1966) in their Systems Approach to Management. It precludes the possibility of executing a finance decision in an isolated manner without leaving any of its effect on other finance decisions.

2. Literature Review

Wealth maximization being the subject matter of the study, literature review for this paper appears to be a difficult task to handle. Wealth creation can happen because of any one of the finance functions such as investment decision, or capital structure decision, or dividend decision. It can also occur as a consequence of the simultaneous effect of several finance decisions. As each of these decision areas is connected with wealth maximization, it requires the researcher to consult literature of all three to four relevant decision areas of finance functions. To keep the spirit of the paper, a brief survey of the relevant part of the literature of each decision area has been considered. In the next paragraph, a brief survey of the studies that examined the effect of capital budgeting on shareholders' wealth maximization has been noted.

2.1 Capital Budgeting and Shareholders' Wealth

Net Present Value (NPV) is an index of wealth, which adds to shareholders' existing stock of wealth once a new investment with positive NPV is commissioned. Decisive selection of investments with positive NPVs goes to increase shareholders' wealth. Hence, there is an undisputed relationship between capital budgeting and shareholders' wealth. Some researchers have empirically verified the effect of capital budgeting decision on shareholders' wealth.

Given, the economic policies of the firms are sound, the use of sophisticated capital budgeting techniques enables the firms to perform better than the firms using naïve models of capital budgeting (Haka, Susan F, et al, 1995). Puwanenthiren, Pratheepkanth (2016) substantiates the observations of Haka et al (1985) from a comparative study of capital budgeting in Australia and Sri Lanka. Puwanenthiren (2016) observes that using sophisticated capital budgeting methods, the firms in Australia add more value to the shareholders' wealth than the firms operating in Sri Lanka, which are still relying on naïve methods of project appraisal. Uwah, U. E. et al (2016) also observes that the capital budgeting process has a significant relationship with wealth maximization objective. While Gatti, Adrsh, et al (2020)

confirms the previous findings and note that capital budgeting does have a positive effect on the profitability of the firms.

2.2 Capital Structure Decision and Shareholders' Wealth

The central focus of capital structure theory is concentrated on deciding the debt-equity combination so that the overall cost of capital is reduced to the minimum. In the light of the capitalization of earnings method, the effect of capital structure on the value of the firm can be understood from the following equation.

$$V = EBIT/k$$

Given, V means the value of the firm and k represents the cost of capital. EBIT is the abbreviation for earnings before interest and tax. The equation indicates that the lower the cost of capital, the higher is the value of the firm. Some scholars verified the link between capital structure and firm performance to verify the effect of capital structure on shareholders' wealth.

Modigliani and Miller (1956) by presenting the capital structure irrelevance hypothesis indicated that, except for the ideal situation assumed in the model, capital structure is greatly relevant in terms of wealth maximization and value of the firm. In 1963 by introducing the effect of corporate tax, Modigliani and Miller (1963) establish that firm value is a linear function of leverage. Subsequently, to verify the reliability of the theoretical propositions, many empirical works have been undertaken by the researchers.

Investigating the US firms of three different sectors Cole C (2015) arrives at the conclusion that capital structure has no relationship with stock price hence the firms wanting to finance investments with debt can do so without sacrificing the future performance of the stock of the firm. The study seems to support the capital structure irrelevance hypothesis of Modigliani and Miller (1956). However, the other empirical researches in this respect come to present conflicting findings, as noted below.

Ghayas, Aktar (2019) and Suu, Nguyen Duy et al (2021) observe that leverage is positively associated with return on equity; it means leverage decision has the effect of enhancing the size of shareholders' wealth. On the other hand, the studies made by Varian, Foo et al (2015) and Chanda, Saurabh et al (2016) reveal a negative correlation between leverage and return on equity. The latter findings of Varian, Foo (2015), and Chanda S. et al (2016) are completely inconsistent in the light of the capital structure model [$V_L = V_U + TD$] of Modigliani and Miller (1963).

Some scholars examine the relationship between leverage and return on assets to verify the effect of leverage on the financial performance of the firms. Of them, scholars like Babatunde (2014), Dawar Varun (2014) Revathy (2016), and Suu, Nguyen Duy (2021) obtain a negative relationship between leverage and return on total assets (ROA). Their studies reflect that

leverage results in the reduction of shareholders' wealth. This is further to add that Varian, Foo (2015), Chanda, Saurabh (2016), and Ghayas, Akhtar (2019) noticed no significant effect of leverage on ROA.

Therefore, the studies noted above reveal contradictory findings. The differences in their findings can be attributed to the time of the study and the differences in the sample they studied. Contrary to the studies noted above, this study is based on the data for a very long period; hence, it hoped the limitations of the previous studies can be, at least, partly overcome.

2.3 Dividend Decision and Shareholders' Wealth

In the dividend capitalization model of Gordon J (1962) and Walter, James (1963), dividend pay-out is treated as the explanatory variable affecting the value of the stock of a firm. Given that, the models outline different decision rules for growth firms and declining firms. Nonetheless, the role of dividends in maximizing shareholders' wealth is undisputed. Further, if the propositions of the 'information content of dividend' are accepted, the higher dividend is presumed to signal that the firm's fundamentals are strong. This contributes to boosting shareholders' expectations and pushing up the share price, which is consistent with the objective of wealth maximization.

Empirical studies undisputedly support that dividend decision significantly contributes to shareholders' wealth. Thanwarat, Suwannaa (2012) observes that stock prices move upward significantly after dividend announcements. Sulaiman, L. A. et al (2015) affirm that dividend pay-out increases stock price performance, which comes to support the dividend relevance hypothesis. Ozuomba, C. N. et al (2016) find that dividend policies of public limited companies influence the wealth of the shareholders. Given the efficient market hypothesis, dividend announcements are more likely to push up the stock prices significantly. Large numbers of scholars test if the market is incorporating dividend information into share prices. Notable of the studies include Joshi, Sanjay S (2017) and Sharif, I et al (2015). The findings substantiate that dividend announcements significantly result in appreciation of stock price and increased return on stock holdings.

3. Research gap

Each of the studies noted above goes ahead to examine the effect of a specific finance function (say, dividend decision) on the wealth of the shareholders. While they do it, they ascribe the total wealth appreciation or value addition to the finance function under their consideration and assign no weights to other finance functions, which, during the period of their study, are equally likely to enhance shareholders' wealth. This is a common mistake of the most of studies surveyed above. Secondly, none of the empirical researches has ever tried to quantify the relative importance of an individual finance function vis-à-vis other finance functions on the aggregate wealth creation of the firm.

4. Objectives of the Study:

The objectives of the study have been enumerated as below:

a) To assess the degree of inter-relationship between the different finance functions.
b) To examine the effect of the individual finance functions such as capital budgeting, capital structure, dividend payment, etc. on the net worth of the firms
c) To measure the relative importance of each finance function in terms of its influence on the net worth creation of the firms.

5. Data, Variables and Model fitting

The study treats the net worth as a proxy variable of shareholders' wealth. It is the book value of shareholder's wealth. Net worth is defined as the dependent variable, while the finance decisions such as dividend decision, capital structure decision, etc. are counted as the independent variables. Time-series data pertaining to dividend payment is taken as a proxy of firms' dividend decision. Similarly, the percentage increase in fixed assets is counted as a proxy of capital budgeting or investment decision. Any change in the position of current assets reflects the firm's working capital decision. The list of the variables includes

  i) DIV, Dividend Payout
  ii) CAPEXP, Capital Expenditure
  iii) Equity, New Equity Capital
  iv) BORROW, Borrowing
  v) CA, Current Assets
  vi) NW, Net Worth

Given the assumption that different finance functions simultaneously add to Net Worth, the multivariate relation as noted below can be taken for empirical verification:

$$NW_t = \beta_0 + \beta_1\,DIV_t + \beta_2\,CAPEXP_t + \beta_3\,Equity_t + \beta_4\,BORROW_t + \beta_5\,CA_t + e_t$$

β_i is the sensitivity of the related variable i. e_t is the random term with the stochastic property.

The period for this study is thirty years, from 1990-91 to 2019-20. Data is the summary data of non-finance private sector firms of India. The data has been downloaded from the Corporate Sector window of CMIE Outlook. All data entries are in terms of percentage change over the previous year (Y-to-Y change in percentage terms). As the data measures the changes over the previous year (i.e., 1st difference), expressed in percentage terms, the data satisfy the characteristics of stationarity of time-series data.

6. Data Analysis and Interpretation

The inter-relationship between the different types of finance functions has been examined in this paragraph. At the time of stating the research gap, it has been noted that many of the finance decisions are simultaneously executed; inherently, these decisions are interrelated and simultaneously act on creating wealth and profitability. Without any reference to this fact, measuring the profitability effect or wealth effect of a single finance decision over a long period leads to misleading inferences. Table 1 presented below shows that leverage decision

(BORROW) and capital budgeting decision (CAPEX) are significantly interrelated. The findings of this study are in line with another study made by Roy, Rudra and Prasad (2017). Their study was based on the interview of the finance executives of the top 30 companies listed on BSE. While giving the interviews, the finance executives stated that whenever big capital expenditures they undertake, they simultaneously have to give attention to the sources of funds, borrowing, or equity. Hence, capital structure and capital budgeting are inherently related. This is very hard to take one of these two decisions in an isolated manner.

Table 1: Correlations

		DIVIDEND	BORROW	CAPEXP
DIVIDEND	Pearson Correlation	1	-.073	.253
	Sig. (2-tailed)		.706	.185
	N	30	30	30
BORROW	Pearson Correlation	-.073	1	.728[**]
	Sig. (2-tailed)	.706		.000
	N	30	30	30
CAPEXP	Pearson Correlation	.253	.728[**]	1
	Sig. (2-tailed)	.185	.000	
	N	30	30	30
**. Correlation is significant at the 0.01 level (2-tailed)				

Source: Computed by researcher

Multiple regression analysis has been used for studying the effect of simultaneous variations in all the finance functions on Net Worth. Table 2 shows that the R-square is 87%, which indicates that the model accounts for 87% variations of the Net Worth of the firms. Table 3 shows the results of ANOVA; F statistic being significant at 1% level, the model appears good and reliable.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.937[a]	.877	.851	3.35395

Source: Computed by researcher

a. Predictors: (Constant), CA, Capital, DIVIDEND, CAPEXP, BORROW

Table 3: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1849.209	5	369.842	32.878	.000[b]
	Residual	258.727	23	11.249		
	Total	2107.936	28			

Source: Computed by researcher

a. Dependent Variable: Net Worth
b. Predictors: (Constant), CA, Capital, DIVIDEND, CAPEXP, BORROW

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistic
		B	Std. Error	Beta			VIF
1	(Constant)	-2.207	2.000		-1.104	.281	
	DIVIDEND	.025	.048	.054	.514	.612	2.093
	CAPEXP	.643	.123	.634	5.205	.000	2.785
	Equity Capital	.229	.192	.108	1.188	.247	1.541
	BORROW	-.579	.191	-.472	-3.031	.006	4.548
	CA	.752	.125	.721	6.022	.000	2.683

Source: Computed by researcher

a. Dependent Variable: Net Worth

Table 4 shows the coefficients. This table presents the magnitudes and direction of the effects of the finance decisions on shareholders' net worth. Three variables viz., capital budgeting (CAPEX), leverage (BORROW) and working capital (CA) decisions are found to have a significant influence on the net worth of the shareholders. While capital budgeting and working capital decisions have a positive influence on net worth, leverage decision is noticed to have a negative relationship. Findings in respect of the relationship between leverage and shareholders' net worth are not in conformity with the theory of financial management, but this is greatly consistent with the findings of previous empirical studies of Varian, Foo (2015) and Chanda, Saurabh (2016), who trace negative association of leverage with shareholders' wealth. This result is also consistent with the findings of Babatunde A. L. et al (2014), Dawar, Varun (2014), and Reevathy S. et al (2016). They also experience a negative relationship between leverage and return on total assets.

The coefficient table (Table 4) shows that dividend decision has no significant influence on shareholders' net worth. As dividend is paid from divisible profits, dividend payments are supposed to have a negative relation with the shareholders' net worth. Empirical findings do not support it. Though the correlation between capital budgeting and capital structure is found significant, yet the measures of VIF statistic indicate the study are free from the multicollinearity problem. Hair J. F. et al (2010) states that VIF above 5 means there is multicollinearity. The rule of thumb is to take VIF equal to 5 as the cut-off point. If VIF is less than 5, the problem of multicollinearity is not severe. Collinearity statistic VIF corresponding to each variable considered in the study is less than 5 [see the last column of Table 4]. It means collinearity is not affecting the findings of the analysis.

7. Conclusion

Various finance decisions have a simultaneous effect on the profitability and wealth of a firm. Therefore, an effort dedicated to measuring the effect of a single finance decision on the net worth or value of the firm is most likely to produce misleading results. This paper quantifies

the relative importance of the various finance functions in terms of their influence on net worth and wealth. The results of the empirical analysis indicate that capital budgeting and working capital decisions have the highest positive effect on net worth, while leverage decision has a significant negative effect on net worth. The effect of dividend decision on stock price thoroughly depends on the market reactions. The paper recommends that capital budgeting and working capital decisions should be delegated to the most efficient finance executives because these two finance functions have the greatest influence on firms' profitability and net worth.

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