

The Virtues of Using Profitabilitymetric for Projectsselection

Thanakorn Phansawadhi¹

¹ School of Management Engineering and Economics, Beijing Institute of Technology, Beijing, China

Correspondence: Thanakorn Phansawadhi, School of Management Engineering and Economics, Beijing Institute of Technology, 5 South Zhongguancun Street, Haidian District, Beijing 100081, China. E-mail: thanakorn@gmail.com

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Abstract

One of most important decisions that any organization would have to make is concerned the potential projects and assets selection. These decision-makings also being based primarily on the degree to which are joined the financial goals of the organization. Numerous common studies on project success and failure reported that the evaluation model correctly predicted almost 80 percent of the project failures and almost 75 percent of the project success. Thus selecting a project using the right technique is ultimate importance for the survival of firms and the achievement of projects. Financial numbers-based existing numeric models have some arguments cited by empirical literatures, but their advantages are many. Therefore, this literature aims to propose and describe the profitability functional method provided as a cumulative value-added metric that is widely appropriate for measuring the prospective wealth of firms, stocks, independent projects, earnable programs, and financial assets. This paper will discuss how to estimate the future worth of potential projects and assets in the dimension of profitability metric.

Keywords: project selection, asset allocation, profitability functional model, capital allocation, profitability metric, leasing decision

1. Introduction

In any growing companies, the selection of potential projects and the allocation of earnable assets that have the great value to the company are extremely important in order to ensure that the company sustains the operations in accordance with the corporate goal, and grows in the selected strategic direction. Typically, the industrial projects include facilities expansion, utilities upgrade or replacement, IS implementation, R&D, innovative product development, process improvement, and re-engineering which each project have different costs, benefits, scopes, times, quality scales and systematic risks. The most of the significant attention has been devoted to individual projects rather than coordinated decision across multiple projects. Thus, project and asset selection are the evaluating process of the firm's individual projects, and then choosing in order to implement some set of them so that the objectives of the parent company will be achieved.

In general, the company has an appropriate mission statement and strategy. The accomplishment of important tasks and goals is being achieved through extremely utilizing the projects and assets. Within the constraint of corporate capabilities and resources, proper models can be used to increase profits, reduce times or costs, select investments for limited capital resources, or improve the competitive position of the company. The objective of project selection is to maximize the present worth of total profit where the profit realized from each project is a decreasing function of its completion time.

By this reason, engineering projects must be selected that are associating to the strategic goals of the company. This decision is normally made in a well-manage company, as part of a capital budgetary process which the capital financing and allocation functions are primary components of this process. Since this is positively relative between the sustainability and profitability of company against the decision making of project selection. Noble (2004) stated the project selection is one of the critical factors in the success of any business change program whether short or long-term. The identification of high impact projects at the initial stage of a program will result in significant breakthroughs in a rapid timeframe. In the implementation of decision making,

project selection is ultimately the responsibility of senior management, whose decision should be based on informative data (Burke, 2000). However, full support by top management is certainly an important contributor to project success. Without such support, the probability of project success is sharply lowered (Meredith, 1981a&b).

The types of project selection models can generally be divided as numeric and nonnumeric. Many organizations use both at the same time, or the combined models of them. Nonnumeric models are conventionally simpler and have only a few subtypes to consider such as the sacred cow, the operating necessity, the competitive necessity, the product line extension, comparative benefit model, and other nonnumeric model. These models are clearly goal-oriented and directly reflect the primary concerns of the company (Meredith & Mantel, 1995). On other hand, numeric models are further subdivided into profitability and scoring categories. Profitability functional models include standard forms such as payback period, average rate of return, discounted cash flow, profitability index (cost-benefit ratio), internal rate of return, option pricing theory, intangible benefit analysis, and so forth. Scoring models perhaps include the unweighted 0–1 factor model, the unweighted factor scoring model, the weighted factor scoring model and the constrained weighted factor scoring model. The most recent trend has been to combine the different methodologies into an interactive, integrated, decision makers-friendly, intelligent decision support system (IDSS). For example, Monte Carlo simulation (e.g. Meredith et al., 1995), special purpose simulation (SPS) developed by Hajjar and AbouRizk, 2000 (e.g. Powers et al., 2002; Hajjar et al., 2004), the combination of analytical hierarchy process and project desirability matrix (Kumar et al., 2009), Dempster-Shafer evidence theory (e.g. Zhu & Guan, 2009), etc.

Numeric models to assist in decision making on the operation researches has expanded since the computers have been developed. Many of these models use financial numbers such as profits and/or cash flows to measure the correctness metrics for a decision maker. A large majority of all firms using project evaluation models employ profitability as the single measure of acceptability. The profitability functional metrics are composed of payback period, average rate of return, discounted cash flow, internal rate of return, profitability index, and other profitability models which are a many variations of the model such as subdivide net cash flow into the elements that comprise the net flow, included specific terms of risk or uncertainty, and extending the effects analysis that the project might have on other projects or activities in the firm.

The advantages of the profitability functional models are consists of (a) almost simple to utilize and understand, (b) employing available accounting data to determine the subjective variable, (c) model output is in terms familiar to business decision makings and is on an absolute profitability scale, and (d) some of profit-based models account for project risk.

In contrast, Meredith and Mantel (2011) stated that the disadvantages of these models are composed of;

- models ignore all nonmonetary factors except risk,
- do not include discounting ignore the timing of the cash flows and the time–value of money,
- models reduce cash flow to their present value which are strongly biased toward the short run,
- payback-type models ignore cash flows beyond the payback period,
- models are quite sensitive to errors in the input variables for the early years of the project,
- all discounting models are nonlinear, and the effects of changes or errors in the parameters are generally not obvious to most decision makings,
- and models depend for input on a determination of cash flows but it is not clear exactly how the concept of cash flow is properly defined for the purpose of evaluating projects.

In general, the net present value models are preferred to the internal rate of return models. Despite wide use, financial models rarely include non-financial outcomes in their benefits and costs (Ross et al., 1995). Githens (1998) reports about traditional financial models that is simply cannot capture the complexity and value-added of today's process-oriented firm.

Consequently, the main purpose of this paper is to describe the virtues of using a profitability functional evaluation method provided as a cumulative value-added metric that is widely appropriate for measuring the prospective wealth of independent projects, earnable programs, division (work groups), and financial assets. This paper comprises four main sections: First is a guidance study to mention the background and significance of the study. Second is a general mention on the reviews of academic literatures and its related theories. Third is proposing a methodology of profitability dimensional model using for evaluating the project or asset selection. Finally, conclusions and discussions about the advantages of this metric according to expel the lacking of

traditional methods will be provided.

2. Literature Reviews

Selecting the type of model or metric to assist in the evaluation process depends on the philosophy and goal of management. The most of key persons prefer the use of one or more financial models for R&D project decision making. Decision makers are forced to make difficult choices and they are not always comfortable doing so. They are forced to reduce often vague feeling to quite specific words or numbers (e.g. Liberatore & Titus, 1983; Irving & Conrath, 1988). However, the implementation of scoring models is not easy likely as its principle and structure might seem. Also, project scores do not represent the value or wealth associated with a project or asset and do not directly indicate whether or not the project should be supported. Unweighted scoring models assume all criteria are equally importance, which is almost certainly contrary to fact. Nonetheless, their virtues are also many.

In academic literatures, there are several researches on corporate performance measurement and evaluation consistent found that profitability functional metric is a powerful tool to measure or evaluate the firm capacity in order to generate more capital to increase profits. Generally, it is agreed that firm performance should be measured by its ability to generate profit (e.g. Zhu, 1999&2000; Luo, 2003; Shih, 2010). Additionally, it is a vital role in the profitability model where sustainable firms perform better than other firms in the consumer staple, financial, industrial and technology information sectors (Shih, 2010).

Some research reported that there has an indirect linkage among profitability functional metric and scoring metric. For example, Zhang and Pan (2009) studied on non-financial measures and financial performance based upon customer satisfaction (CS) measures. The research consistent supports previous studies which found the positive relationship between sales and customer satisfaction (e.g. Anderson et al., 1994; Ittner & Larcker, 1998). The non-financial measures of CS are positively correlated with financial performance and these organizations with higher CS scores exhibits greater profitability. That meant which organizations focusing on CS are more likely to improve profitability through increasing unit profit margins rather than by merely expanding sales. In theoretic, increasing unit profit margin can be more useful to improve profitability compare with increasing sales. The additional research employs the return on sales ratio (ROS) and turnover of stockholder's equity (TOS) ratio in order to split the return on equity (ROE). They found a significant relation of CS and ROS, but have not any significant of CS and TOS.

Therefore, the abundant merits of the profitability functional metric have been testified and are accepted in practice, their disadvantages also exist as discussed above. In order to eliminate such defects in the traditional models, the alternative proposition will be introduced in the next section. The proposing approach would employ the concerned discount rate in terms of the financing cost of equity (COE) for project or asset selecting which its market value is available at time, and the non-financing cost of equity (NCOE) for project or asset selecting which its market value is unknown or unavailable.

2.1 The Financing Cost of Equity (COE)

In financial theory, the cost of equity is acknowledged as the rate of return that is necessary to satisfy commitments made to the common stockholders of a publicly traded company. Thus, the acquisition of the cost of equity financing is critical important, not less than the origin of its model. The appropriate estimate of the cost of equity financing will be stimulates the effectiveness of the valuation model. An improper cost of equity reasonably causes to misrepresent the actual ability of the worth valuation models. In aspect of investors, in the context of capital market, investors earn benefits from their investments through both or either total dividends and prospective increment in market capitalization.

Conventionally, there are mainly three traditional theories of COE estimates: the first is the simplest traditional formula for estimating the cost of equity which is related to the dividend capital model (DCM). But this formula cannot calculate the cost of equity capital, in case the firm has no dividend payout policy. The second is based upon the capital asset pricing model (CAPM) which is using for pricing an individual risky stock or portfolio. The third is the arbitrage theory of capital asset pricing (APT), which gives an alternative to the CAPM to compute the expected returns on risky stock. However, some empirical studies cited that both asset pricing models did not emphasis on the explanation of the relationship between risk and return, or immeasurable market portfolio (e.g. Fisher et al., 1969&72; Roenfeldt et al., 1978; Chen, 1981). Given an example, Fisher et al. (1969) presented an empirical research and suggested that low beta stocks may offer higher returns than the model would predict. And additional empirical tests of the CAPM in 1972 have the evidence indicate that the expected excess return on an asset is not strictly proportional to its systematic risk (β).

Alternatively, Phansawadhi (2012a) was proposing the accounting-based estimate of the cost of equity capital (COE) which a general formula was obtained from the reverse-calculation of Ohlson's Residual income model. This proposition is basically assumes that the cost of equity financing (k) for a firm or stock reflects from its operating results during constantly considering periods, which these operations have absorbed all systematic factors appropriately, including the systematic risk in the capital market impacts through the variance of its market price (price fluctuations) depending upon the information available. In summary, the general estimation of the cost of equity financing (k_t) is shown in the following calculation. However, denotes that net income defines which after dividends paid to preferred stocks, and the book value of common equity determines at the beginning period which is excluded preferred stocks.

$$k_t = \frac{NI_t - \Delta BV_t + \Delta MV_t}{MV_{t-1}} \quad (1)$$

Where; NI_t = total net income for period t

ΔBV_t = change in book value of equity at the end and begin of period t

ΔMV_t = change in fair market value of equity at the end and begin of period t

MV_{t-1} = fair market value of equity at the begin of period t

The equation (1) also can be interchangeable to several formations (total 14 forms) by adapting the correlation of some accounting numbers and financial ratios such as clean surplus relation, return on equity ratio, dividend payout ratio, and dividend yield. However, as results of the additional experiment for the COE formulas' sensitiveness tests in horizontal long-run, found that it is different in the acuteness of some estimate formula might impacted by different causes such as strongly fluctuating in market prices, rounding up/down the decimal point in the related accounting numbers, the instability of share numbers during given period, dilution in common stocks impacts to earnings per share, high dividends with low profitability performance, and so forth (Phansawadhi, 2012b).

The following formulation is introduced one more powerful and sensitive measure of COE according to the quantity of COE will be used for evaluating toward the future worth of a project or asset by serving as discount rate in the intrinsic worth valuation model.

$$k_t = \frac{NI_t - \Delta BV_t}{MV_{t-1}} + \text{Growth rate of MV} \quad (2)$$

In regular, analyst is able to determine the cost of equity financing for any projects or assets which acknowledge its market prices at time. The flexibility of the estimates of COE let it does not merely applicable for measuring the potential wealth of any publicly traded firms (or stocks) but also appropriate for other earnable assets such as bonds, private firms, divisions (work groups), independent projects, earnable programs, and properties as well, excepts if analyst perceives its fair market value available at when are considering points.

2.2 Non-financing Cost of Equity (NCOE)

Consequently, in case of unavailable market value at time, for any assets which are not traded in the stock exchange markets or perfectly competitive markets, it is extremely difficult to perceive its fair market value. This condition is perhaps called as fair market value unavailable at time.

Since the market values are unavailable for any or some considering periods, the estimate of non-financing cost of equity (k_t) assumes that the fair market value of equity for an asset is equalize its book value of equity at time. Thus the equation (1) can be manipulated as follows;

$$k_t = \frac{NI_t - BV_t + BV_{t-1} + BV_t - BV_{t-1}}{BV_{t-1}} = \frac{NI_t}{BV_{t-1}} = ROE_t \quad (3)$$

Arithmetical result shown that is the cost of equity for asset which is not traded publicly in the capital market is equalize the quantity of return on common equity at time. Meanwhile, the return on equity measures a firm, project, or asset's profit capability by revealing how much profit a firm generates with the capital which stockholders have invested in shares of a firm. Calculation defines that the return on common equity is equal to

net income after paid preferred dividends, divided by book value of equity at the beginning of considering period.

3. Methodologies

The alternative estimate of the cost of equity for both cases which will be important variable provided as discount rate in the proposing model, have mentioned. After this, we will discuss about how to estimate the future worth of objective projects and assets in term of profitability dimensional metric by using the intrinsic worth valuation model.

3.1 Introduction of Intrinsic Worth Valuation Model

In the context of stock exchange, market value is almost different to book value because investors take their expectation into account future potential profits and business growth in various dimensions. As discussed, returns from assets which are traded publicly and are not traded in the capital market, are also too different. Stockholder of private firms earns profits from only total dividends, while they gains (or loses) benefits from both or either total dividends and change in market value of equity from their investing in shares of a publicly traded firm.

Let t be the periods, defines that the k_1 represents the rate of return on common equity during 1st period, the k_2 represents the rate of return on common equity during 2nd period, ..., and the k_t represents the rate of return on common equity during period t . The basic equity worth is presented by the book value of equity as B_0 at base period $t = 0$. Thus the current intrinsic worth (W_T) at current period $t = T$ determines that it is equivalent to a book value at base period (B_0), plus a sum of the change in book value for each period. The generalized estimation defines that the current intrinsic worth of common equity is equal the absolute value of the basic equity worth at base period multiplied by the product operation of $(1 + k)$ for each past periods.

$$W_T = |B_0 * \prod_{i=1}^T (1 + k_i)| \quad (4)$$

Phansawadhi (2012b) was proposing how to estimate the firm worth through the intrinsic worth valuation model with classified two cases by follows the information of fair market value of equity are available or else.

- (I) When the market values are available, the intrinsic worth valuation model requires the product operation of $(1 + k)$ for each past period. But,
- (II) When the market values are unknown or unavailable at time, the intrinsic worth valuation model requires the product operation of $(1 + ROE)$ instead.

3.2 Selecting Prospective Projects through Future Intrinsic Worth

Let T be the current period, assumes that analyst perceives the k_{T+1} represents the expected rate of return on common equity during $(T+1)^{th}$ period, the k_{T+2} represents the expected rate of return on common equity during $(T+2)^{th}$ period, ..., and the $T + t$ represents the expected rate of return on common equity during period $T + t$. Thus the future intrinsic worth of a project or asset at period $T + t$ represents as W_{T+t} .

$$W_{T+t} = |B_T * \prod_{i=1}^t (1 + E[k]_i)| \quad (5)$$

Where; B_T = book value of equity at current period T

$E[k]_i$ = expected rate of return for any period i when $i = 1, 2, \dots, t$

Therefore, analyst can evaluate a project or asset through its prospective worth by exclusively estimating each given periods of the rate of return which separately follows the information of market values are available or unavailable.

In fact, the firms (projects or assets) which are publicly traded in the stock exchange or other capital markets, the investors reasonably expect to earn for investing in shares of a firm through both or either its dividends and prospective increasing in market capitalization (market value of equity), in a while this value is directly varying to its market price. Thus the market capitalization of projects or assets in this case can be change with two factors that is consists of a firm's profitability and the expectation of price movement from the investors in capital markets. That is reasons why the proposition considers the discount rate of each project or assets

definitely divided into the following information of market value which are available or unavailable. Then analyst is able to calculate the growth rate of each choice during future determined period, or used as well as a profitability dimensional metric to compare with other projects or assets.

In economics, inflation is a rise in the general price level of goods and services in an economy over a period of time, and subsequently reflects decay in the purchasing power of currency. The main cause of inflation is excessive growth in the money supply. According to the quantity theory of money, states that the quantity of money and price levels of goods increase at the same rate in the long term. It assumes that the velocity of money and the amount of transactions in the economy are basically constants, increasing the money supply will lead to a proportional increment in the average prices (inflation). In contrast, deflation is a decrease in the general price level of goods and services which occurs when the inflation rate becomes a negative value. It is primarily caused by a reduction in the velocity of money and/or the amount of money supply. Deflation can be caused also by a decrement in the expenditure of government, personal or investment. That is summarized that the inflation reduces the worth of money over time but the deflation increases the worth of money.

To include the impact of inflation or deflation where $E[p]_t$ represents the estimated rate of inflation (value-decayed) or deflation (value-added) during each future given period t , thus the future intrinsic worth estimate of an objective project as introduced in the equation (5) can be manipulated as follows;

$$W_{T+t} = |B_T * \prod_{i=1}^t (1 + E[k + p]_i)| \quad (6)$$

Where; p = the rate of inflation (-) or deflation (+)

$E[\dots]_i$ = expected parameters for any period i

Consequently, analyst can estimate the prospective worth of projects or assets with concerning the purchasing power of money which the inflation rate will be reduce the value in the required rate of return, while the deflation rate will be add the value into the required rate of return during each considering period. Denotes that a use of the required rate of return is still splitting follows the information of market values which are available or unavailable.

Furthermore, if we expect forward the rate of return from current period T for i periods as a constant either \bar{k} or \overline{ROE} , respectively. The future intrinsic worth of a choice is equals the i period future worth of book equity at current period.

$$W_{T+i} = B_T * (1 + E[\bar{k}])^i \quad (7a)$$

$$W_{T+i} = B_T * (1 + E[\bar{k} + \bar{p}])^i \quad (7b)$$

Where, W_{T+i} = future intrinsic worth of a project for the next i periods

B_T = current book value of equity or book equity at considering point

\bar{k} = the expected average rate of return (divided follows market value available or else)

\bar{p} = the estimated average rate of inflation or deflation

Hence, analyst can estimate the prospective worth of objective projects or assets without or with concerning the purchasing power of currency as shown in the equation (7a) and (7b), respectively.

The equations above, mostly like to the money-time relationship. However, the differ is that the future monetary worth is requires the discount rate as the interest rate or a combination of the actual interest rate and inflation (or deflation) rate over a given period, but the future intrinsic worth is primarily requires the discount rate as its return on common equity which measures the firm's profitability over a considered period of time. On the other hand, it also requires the discount rate as the cost of equity capital when the objective projects or assets can be perceived the market value available at time.

3.3 Future Worth Recovered Period Analysis

The $(1 + k)^i$ quantity in the equations (7) is called the single return compound amount factor, which is equates to the fraction of the i periods future intrinsic worth versus its current intrinsic worth of each choice. By adapting this relationship, we can estimate the future worth recovered period (I) for the objective projects or assets that its definition can be manipulated as shown in the following equation.

$$I = [\ln W_{T+i} - \ln W_T] / \ln(1 + E[\bar{k}]) \quad (8a)$$

$$I = [\ln W_{T+i} - \ln W_T] / \ln(1 + E[\bar{k} + \bar{p}]) \quad (8b)$$

Where, I = objective project's future worth recovered periods

W_{T+i} = the expected future worth

W_T = current worth

\bar{k} = the required average rate of return for the next I periods

\bar{p} = the estimated average rate of inflation or deflation for the next I periods

Therefore, project or asset which has lower future worth recovered period should be earnable well or payback better and let decision maker (and stakeholder) reasonably might delight. However, the quantity of monetary transaction during over some period of future time perhaps excessively supply in the whole economy, then the profitability performance of project will be higher than the model would forecast or the analysts had expected correctly. In contrast, particular declines in the aggregate level of goods demand, domestic expenditures, and/or investment are leading to further reductions in the aggregate demand. The phenomenon of monetary deflation will be impacts to the profitability of objective projects or assets which is typically declined, but the future worth of them shall increase in accordance with the purchasing power of earned currency.

In summary, analysts can predict the expected worth recovered period of choices without concerns about the monetary power when the rate of inflation and deflation are quite stabilized within prospective planned period. Alternatively, this flexible model requires the attention in the monetary power whereupon the rate of inflation and deflation are not severe stabilizing during prospective determined period. That is the inflation rate will be reducing the value in the required rate of return, while the deflation rate will be increasing the value into the required rate of return during each expected period. Remarkably, reminds that the required rate of return still divided follows the return characteristic of investment projects.

4. Discussions and Conclusions

The proposed profitability dimensional metric for projects and assets selection is a powerful strategic tool due to assist the fundamental analyst and decision maker will easier understand the viewpoint of goal achievement. Because this model measures the project's profit capability since the operation launching until prospective given periods. Alternatively, it aids to estimate how many long periods that the required profitability of potential project will be recovered the expected worth in the future, which decision maker can adopt the basis information for deciding on the investments or the project selection.

Even though, some study has mentioned the argument about some profitability functional model that if the investment in a project is delayed, its value may increase (or decrease) with the passage of time because some of the uncertainties will be reduced. If the value of the project drops, it may fail the selection process. If the value increases, the investor gets a higher payoff. But the cost of project is normally increased in accordance with the extended or delayed time and an increment in the cost of materials and services. However, the proposed numeric model escapes from these arguments due to the extended time make a few impact into the future worth of project, if the project can be maintain the profitability follows when analyst was estimated.

The proposition is quite wide and flexible to use for several business strategic selection such as publicly traded firms, private firms, stocks, bonds, projects, programs, new products, earnable work groups, properties, and so forth. This model emphasizes on the profit characteristics of project. For example, the firms which its stocks are publicly traded in the stock exchange market, stockholders can earn or lose money through both or either changes in its book value of common equity and market capitalization. In this case, the profit functional model requires the cost of equity capital serves as discount rate when analyst estimates the future worth of these projects.

The advantages of this profitability functional metric are abundant. Especially, it can be eliminating the arguments and disadvantages of the existing profit dimensional models which are comprise of;

- Book value of equity is an independent variable in the intrinsic worth model which this amount is appropriate to be a measure of the wealth of firm or project in aspect of both stakeholders and

debtholders. In addition, the amount of base book value is available for each project, do not need to estimate or forecast forward.

- This profit metric defines that the wealth measuring of projects or assets is relying upon the future worth of book value, which exactly clear how the concept of book value is properly defined for the purpose of evaluating project or asset.
- The acquisition of the required rate of return is reasonable more than the traditional approaches have ever described. Its definition hangs on the truth of investment behaviors that stockholders earn money from their investment in shares of public companies through both or either its dividends and increasing in its market capitalization. For private firms or independent projects which no have the reality of market value, they earn primarily through its dividends and/or grow in book value of equity until stop (or sell) that firm or project. Meanwhile, traditional estimates of the required rate of return do not emphasize this truth.
- In simple form, the employed intrinsic worth model requires to forecast only the cost of equity follows case by case. But the discounted cash flow model needs to predict both net cash flows and the required rate of return which are quite sensitive to errors in the independent variables. This uncertain factors impact to the precision, validity, and reliability of traditional model.
- The proposition emphasizes the timing of earnings, money-time relationship, and monetary power which project will be earn in currencies according to the rate of inflation and deflation.
- The model compounds the book value of equity to their future worth which are unbiased neither short-run nor long-run.
- While the payback-type models ignore cash flows beyond the payback period, but this future worth recovered period analysis can be assumed the expected worth as long as analyst and decision maker would prefer.
- The proposition is quite straightforward to understand and implement, also does not emphasis on net cash flows which is a measure to gauge the firm's monetary liquidity or financial situation, also net cash flow might be employed to evaluate whether a firm has enough cash to maintain the operation over a given period of time or investment in future projects. Because it usually measured during a specified period, thus it is no significant to directly relate with the corporate wealth.

In conclusion, analyst would remember that the discussed method is based on time-valuing of a firm or project's profitability function by using the cost of equity serves as the discount rate in the intrinsic worth valuation model, but the model ignores all nonmonetary factors, except systematic risk. Furthermore, it is always best to determine a good framework of project selection process that provided from the inception with a list of criteria to be considered and goals to be achieved. This will guide the organization through the entire selection process, and it will also ensure that key managerial person decides the right choice for both stakeholders and debtholders.

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