

Capital Investment Appraisal in Retail Business Management: Sainsbury's as a Case Study

Waheed Azeez

I. Introduction

It is very important in any business organisation to make critical investment appraisal before any decision is taken on a given capital investment. This type of appraisal is undertaken by the senior management team and constitutes part of strategic decisions. The tactical and operational decisions may fall on the shoulders of the middle and junior managers, who are responsible for how to get things done and ensure that things are properly done respectively. The fact remains that the original decision-making process remains the responsibility of the senior managers.

Before any capital investment is undertaken, the major stakeholders in the company or the senior managers have to carry out critical evaluation of the proposed investment to look into the long term benefits that the company will gain from such venture. To this end, proper planning should be made and there should be measurable benchmarks that can be used to assess the success or failure of the proposed undertakings.

This kind of evaluation is very necessary in any capital investment that requires the purchase of fixed assets. Apart from guiding the senior management team in deciding whether to go ahead with an investment strategy, this type of appraisal also helps the middle financial managers in Electronic copy available at: <http://ssrn.com/abstract=2392288> taking tactical decisions on how to go about any given capital project in order to get optimal results. This will provide a good insight required by the junior managers in taking operational decisions needed for the day to day running of the business.

In this paper, efforts shall be made to examine the decision-making process used by organisations to evaluate different investments and to decide which fixed assets to purchase. The common methods of investment appraisal that are usually applied, such as: Accounting Rate of return, (ARR), Payback, Net Present Value (NPV) and Internal Rate of Return (IRR) shall be looked into. Examples will be given to illustrate the points raised.

For illustration purposes, Sainsbury's annual financial report is frequently cited within the essay. I have chosen Sainsbury's because of its position as one of the oldest and strongest retail companies in the United Kingdom.

Sainsbury's

As mentioned above, I have chosen Sainsbury's as a case study in this paper because of the company's position as one of the most successful businesses in the UK. Besides, the company's financial Annual Report and Financial Statements for the year 2013 provide an insight into how financial activities of big companies are run in the modern day's economy.

Founded in 1896, Sainsbury's has been trading in the UK market for approximately twelve decades. The company has approximately 157,000 workers and processes 23 Million customer transactions per week. It has 1,106 Stores, 583 supermarkets and 523 convenience stores. Sainsbury's annual sales for this financial year is £25,632 million constituting 16.8 per cent UK market share with 33 consecutive quarters of like-for-like sales growth. (Sainsbury's 2013, p.5) I have briefly given the background information of the company so as to show its relevance to this paper since most of the examples used in this work are taken from its latest financial statement.

Capital Investment Appraisal

Capital investments appraisal is an offshoot of capital budgeting. This constitutes techniques traditionally applied to the principle of economics to assets replacement and expansion decisions. In fact, the two terms are sometimes used interchangeably to denote the same meaning. Horngren, Foster and Data (2000, p748) define capital budgeting as "making off long term planning decisions for investments in projects and programmes" Gitman (2008 p380) defines it as a "process of evaluating and selecting long term investments that are consistent with the business goal of maximising owner wealth."

However El-Masri, M and Harris, E.P., (2011 p.345), try to make a distinction between the two concepts. According to them, capital budgeting is mainly concerned with quantitative issues while the main criterion for evaluating any project proposal is financial. In view of this, any project that is expected to yield high cash flow would be readily accepted. Whereas, with the case of investment appraisal, those responsible for

decision making are expected to consider all related aspects, both financial and non-financial before approving or rejecting any investment. It is for this reason that they conclude that investment appraisal techniques should take account of more variables, less-predictable outcomes and non-financial factors which they refer to as multi-factor models (Magdy G.A. 2011).

As mentioned earlier, the significance of capital investment appraisal and its very vital position in financial management cannot be over emphasised. It is pertinent to note that adequate caution must be taken before any capital project is approved. This is because most strategic decisions are often long-term in nature and are quite capital intensive usually involving multimillion pound investments. Besides, owing to its long-term nature, it is often difficult to change direction or stop the project when it is already started. It is very important to get it right from the outset because failure to do so may lead to a devastating consequence for the organisation.

In addition to that, the high present in capital projects must not be overlooked. There is no certainty in projected future benefits and costs with regards to capital project proposals. The future is very hard to forecast or predict. A sudden change in the market is not unexpected, especially in the current globalised world. This is why the risk of undertaking long-term investment can be very high.

Therefore, before embarking on any capital investment, the senior management team in any given organisation must carefully evaluate the possible outcome of this strategic decision before going ahead with the planning and implementation.

Sainsbury's Method of Capital Investment Appraisal

Different organisations use different methods to carry out their capital investment appraisals and Sainsbury's is not an exception. Unlike the annual report which is always published to the public, the strategies used for capital investment appraisal are known mainly to the decision makers or members of the senior management team who are responsible for strategic decisions.

To evaluate any proposal for capital investments, and to decide which fixed assets to purchase, business organisations usually apply four different methods of investment appraisal. These commonly used methods are: Accounting Rate of return, (ARR), Payback, Net Present Value (NPV) and Internal Rate of Return (IRR). Having looked into Sainsbury's current annual report and financial statement one can understand from this report that the company uses virtually all the methods mentioned above. Let me briefly examine each of the methods and see how it is applied by Sainsbury's in its strategic planning. According to the report, the main focus of the company in its strategic planning is developing new business. While continuing to maintain and strengthen its current areas of operation, the company plan to expand its business by venturing into new areas of operation. The relevant part of the report state thus:

Our targeted programme of new business development continues, with Sainsbury's pharmacies now open in over 270 stores and in three hospitals. Sainsbury's Energy has achieved an 83 per cent increase in customers over the year and we are finding new ways to offer a range of digital products and services, from eBooks to Mobile Scan & Go. Growing space & creating property value (J Sainsbury plc, 2013 p.8)

As can be seen from the above, the company's projected capital investments for the coming year are meant for the areas itemised below:

Offering a range of digital products and services, from eBooks to Mobile Scan & Go.

- Growing space & creating property value
- Building 14 new supermarkets
- 87 convenience stores
- 8 extensions to its estate
- Acquiring Lloyds Banking Group's 50 per cent shareholding
- Developing complementary channels and services

Without doubt, the company needs to carefully evaluate these projects before going ahead with any of them. This is why it becomes expedient to apply the methods we mentioned above to minimise the risks involved.

Payback

Payback is the most popular method applied by organisations to evaluate their capital investment proposals before embarking on them, especially in situations where future cashflows become very difficult to predict. The method assumes that risk is time-related and therefore, the longer the period of risk taking, the greater the chance for failure. As Drury, C. (2012 p.306) describes it, "...the payback period can be used as a rough measure of risk, based on the assumption that the longer it takes for a project to pay for itself, the riskier, the riskier it is."

Because of its ability to provide result within a given time frame, managers often prefer to consider the payback method over the others. Besides, managers can use the method to showcase their success especially where the manager’s performance is measured using short-term criteria. This accounts for its popularity among managers. Drury, C. (2002) refers to the surveys conducted in 1992 by Pike relating to the investment appraisal techniques by 100 large UK companies between 1975 and 1992, which provide an indication of the changing trend in practice within large UK companies. Below are the findings relating to the percentage of firms using different appraisal methods?

	1975	1981	1986	1992
Payback	73	81	92	94
Accounting Rate of Return	51	49	56	50
DCF Methods (IRR or NPV)	58	68	84	88
Internal Rate of Return (IRR)	44	57	75	81
	32	39	68	74
Net Present Value (NPV)				
Source: Pike (1996)				

As can be seen from the above, Payback continued to be increasingly popular within the period covered by the study. In a similar vein, Boyle, G.W and Guthrie, G.A. (1997) try to emphasise the popularity of the Playback method, Quoting from various sources, such as Gilbert and Reichert (1995), Gitman and Forrester (1977), Oblak and Helm (1980) and Stanley and Block (1984) find that between 40% and 75% of US firms use payback as a capital budgeting technique. Jog and Srivastava (1995), McMahon (1981), Patterson (1989), and Shao and Shao (1993) they express their dismay on the fact that find that between 40% and 75% of U.S. firms use payback as a capital budgeting technique, despite the method’s payback criticism for ignoring the time value of money and also for neglecting project cashflows.

Back to Sainsbury’s projected capital investment for the coming year. If we look at the company’s plan to acquire Lloyds Banking Group’s 50 per cent shareholding or start offering a range of digital products and services, from eBooks to Mobile Scan & Go, the managers can use the payback method to predict how long it would take for these projects to pay for the capital invested on them. For instance, Sainsbury’s management have reached an agreement to spend £248 million for the acquisition of 50 % of Lloyds Banking Group’s 50. This sum comprises cash consideration for the shares of £193 million and the purchase of £55 million of loan stock.

If the management want to use the payback method to evaluate any of these projects for long term investment, they need to decide the maximum period they would like to commit before the invested capital is recouped. As stated in the annual report, the company is so confident that it would be able to realise this objective. The relevant section goes thus:

“...and that customer penetration is low, there is a significant opportunity to grow the Bank and at the same time in-store sales and customer loyalty. As a result we expect strong returns over time for the Group from this investment.”

It is evident from the above that contrary to the claim that the playback method is only meant for small scale businesses, the big business also apply this method in conjunction with other systems.

Accounting Rate of return, (ARR)

The accounting rate of return is one of the most commonly used method of capital investment appraisal. As Don R. (et.al, 2002) portend, this method measures the return on a project in terms of income rather than using the project’s cash flow. The formula below succinctly describes how the accounting rate of return is calculated. Accounting rate of return = Average income/Original investment or Accounting rate of return = Average income/Average investment It must be noted that income, with regard to the above formula, is not the same as cash flows. We obtain the average income of a given project by summing up the income of each year of that project and dividing the total by the number of years. (Ibid, p.718) While small firms prefer to rely solely on the Payback method, especially owing to limited cashflows and inability to invest on highly qualified specialist managers, big businesses have no reason to worry about this type of predicaments. Apart from having enough cashflows that enable them commit massive working capital without any negative effect on equity; the large scale businesses such as Sainsbury’s, have the wherewithal to hire experienced and highly qualified managers that are cable of using complex and complicated methods. Despite the popularity of payback, the method has been flawed especially because of its failure to consider the time value of money. By contrast, this is

not the case with the Accounting Rate of Return.

Now, taking one of the proposed expansion projects that Sainsbury's earmarks for the coming year, say, building of 14 new supermarkets as stated in the company's annual report, the company can apply the ARR method to evaluate the project's viability. By measuring the return on similar supermarkets built in the past, the company can predict the outcome of the proposed project to some extent, using the formula presented above. That the company has the ability to achieve this is not doubtful.

Net Present Value (NPV)

Net Present Value is another method commonly used in capital investment appraisal. This is a formula that is used so as to effectively determine the present value of a given investment with the discounted sum of all cashflows received from that particular project. (http://www.financeformulas.net/Net_Present_Value.html) The net present value is calculated by estimating how profitable a project would be before starting off. In other words, before taking on a project or investment, the investor calculates an estimate of the profit the proposed project is likely to generate.

When a company or investor takes on a project or investment, it is important to calculate an estimate of how profitable the project or investment will be. In this method, the $-C_0$ is the initial investment, which is a negative cash flow showing that money is going out as opposed to coming in. Considering that the money going out is subtracted from the discounted sum of cash flows coming in, the net present value would need to be positive in order to be considered a valuable investment. When a company or investor takes on a project or investment, it is important to calculate an estimate of how profitable the project or investment will be. In the formula, the $-C_0$ is the initial investment, which is a negative cash flow showing that money is going out as opposed to coming in. Considering that the money going out is subtracted from the discounted sum of cash flows coming in, the net present value would need to be positive in order to be considered a valuable investment. Irfanullah (2013) uses the following formula to explain this method.

In the above formula, the initial investment, being a negative cashflow, shows the cash going out. The cash going out is deducted from the discounted cashflows coming in. For an investment to be considered valuable, the net present value would have to be positive. To keep it simple, the following formula describes the method in a very simple way: $NPV = (\text{Cash inflows from investment}) - (\text{cash outflows or costs of investment})$ To exemplify this, let's consider Sainsbury's proposed expansion projects stated in the company's current annual report. The company's plan to complete the purchase the remaining 50 per cent of the Sainsbury's Bank by January 2014 is very relevant here. Before this decision was made, the management must have consider the performance in this sector over the years and evaluate the trending position of the company in this regard so as to predict the profit that would be made from this investment.

In other to get this right, the managers need to evaluate the underlying profit in similar previous investments over a given period. That is why it becomes pertinent to look into the return on capital employed (ROCE) in conjunction with other financial situations such as the cash flows, the Time Value of Money and other market conditions before making any decision in this regard. This is conspicuously evident in Sainsbury's financial report thus:

ROCE excluding the net pension deficit, over the 52 weeks to 16 March 2013 was 10.4 per cent, a year-on-year decrease of 15 basis points. ROCE growth was held back by slower sector growth, reduced industry profitability and the cumulative effect of Sainsbury's accelerated investment in space growth since June 2009. This has an initially dilutive impact on profits as the stores mature, whilst increasing the value of capital employed.

Return on capital employed

52 weeks to 16 March 2013	2013	2012	Underlying operating profit (£m)	829	789	
			Underlying share of post-tax profit from JVs (£m)	38	32	
			Underlying profit before interest and tax (£m)	867	821	
			Average capital employed1 (£m)	7,753	7,424	
			Return on capital employed (%)	11.2	11.1	
			Return on capital employed (%)	(Excluding pension fund deficit)	10.4	10.6
			52 week ROCE movement to 16 March 2013	12	bps	
			52 week ROCE movement to 16 March 2013 (excluding pension fund deficit)	(15)	bps	

Internal Rate of Return (IRR)

This is another method with which the capital investment appraisal is carried out. It is often used by managers and practitioners for investment decisions. It is the "annualized effective compounded return rate" or discount rate that makes the net present value of all cash flows (both positive and negative) from a particular investment equal to zero.

The IRR's main criterion for approving an investment to accept a project if the IRR is greater than the cost of the capital invested and to rank competing projects via their IRRs in such that the higher a project's IRR the higher its rank. (Magni, C.A. 2010)

The method is, sometimes, referred to as discounted cash flow rate of return (DCFRROR), rate of return (ROR) or the effective interest rate. The term 'internal' is used to connote the incorporation of external environmental factors like the interest rate and inflation. Basically, the IRR is computed by calculating the interest rate at which the net present value of costs (negative cash flows) of any given investment which equals the net present value of the benefits (positive cash flows) of the investment. The golden rule here is that the IRR of a new project must not exceed a company's required rate of return. Where this happens, the project would be considered undesirable and would be rejected. The following formula succinctly shows how IRR works: $0 = P_0 + P_1/(1+IRR) + P_2/(1+IRR)^2 + P_3/(1+IRR)^3 + \dots + P_n/(1+IRR)^n$ where P_0, P_1, \dots, P_n equals the cash flows in periods 1, 2, . . . n, respectively; and IRR equals the project's internal rate of return.

To illustrate this, assume Sainsbury's is spending £300 million on its plan to complete the purchase the remaining 50 per cent of the Sainsbury's Bank by January 2014. Let us assume also that this investment is expected to £150 million annual profit in X period. The management would decide to proceed with the purchase if it can determine that this purchase can generate more profit in the long run than, say, building a new supermarket.

However, the IRR has been criticised for giving rise to serious conceptual and technical problems. Magni, C.A. (2010) mentions eight problems associated to IRR.

Kelleher, J. (2005) recognises that IRR has certain flaws that can lead to poor investment decisions. He predicts that the method will likely continue to be widely used during capital-investment appraisal owing to its strong intuitive appeal.

Conversely, Martin, R. (1995) agrees that the extensive criticism levelled on IRR is quite inadequate and the cautions expressed in corporate finance and financial management textbooks regarding IRR are unwarranted and unnecessary. While trying to put the criticisms of IRR into perspective, he posited that the disadvantages of the IRR have often been overestimated while its benefits are underestimated.

II. Conclusion

I have stated in the foregoing that proper appraisal is needed before any decision on capital investment is taken. This process, otherwise known as strategic planning, involves the use of certain methods to evaluate any project before embarking on it. The process is so vital that it can go a long way in determining the success or failure of any given capital investment.

Four methods are usually applied by organisations to evaluate capital investments. These methods are: Accounting Rate of return, (ARR), Payback, Net Present Value (NPV) and Internal Rate of Return (IRR). I have tried to examine each of the methods in line with the modern business systems. We use Sainsbury's to illustrate the points presented in this paper. As mentioned earlier, I have chosen Sainsbury's as a case study because of the company's position as one of the most successful businesses in the UK.

Be that as it may, something that I found out during the course of writing this paper is that despite arguments in favour or against some of these methods, no single one is completely perfect or without flaws. While small scale firms or companies with very limited cashflows may prefer the Payback method for its simplicity and because it requires less capital commitment and minimal or no expertise, large organisations are ready to use more complex methods such as the Accounting Rate of return, (ARR), Net Present Value (NPV) and Internal Rate of Return (IRR). Also, the Internal Rate of Return (IRR) have been portrayed in many textbooks as being less effective, but the fact that it continues to be applied by many large organisations today proves otherwise. I cannot agree less with Martin, R (1995) that IRR is not inferior to NPV or any other method as traditionally claimed.

In conclusion, having carefully studied Sainsbury's annual report for the current financial year, I have been able to realise that the company, like many other similar organisation, applies most if not all of these methods together. That is, the company can mix and match as the managers consider it appropriate, so as to get the optimal result. As the old adage goes, whoever fails to plan plans to fail. The main difficulty that a company like Sainsbury's may likely face in this regard is the complexity of its administration. Lack of resources or limited cashflows is not the issue here. But, to take a decision on any capital project or decide on any method to use, it has to follow some hierarchical structures from one managerial level to the other, thereby delaying the decision making process.

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