

# NACCQ “The Dragon’s Den”- Investment Logic Models for Student IT Projects

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## Abstract

Student IT projects require effective project management but this alone doesn’t guarantee that the project will yield all its potential benefits or indeed be the right task to be undertaken. An Investment Logic model forces the project and indeed the client to take into account wider organisational drivers to frame its objectives and deliver benefits that can be measured against committed resources. IT projects that survive this analysis are far more likely to achieve their intended results.

## 1 Introduction

In recent years the management of IT investment decisions has been often supported by project management tools. These tools primarily focus on the question of whether the funded project is running to time and budget. It is not their function, however, to assist in forming an investment decision, establishing criteria for funding investments or determining what benefits have actually been derived from the original decision to invest.

While project management remains critical to the success of any major IT investment, what is needed is some complementary communications tool that will enable the investor to focus on the reason for the initial (IT) investment and the benefits it provides throughout the investment lifecycle. This represents the viewpoint of the investor, the decision maker rather than that of the project manager with appropriate differences in language and timescales. (See Figure 1 below)

In 2007 the Victorian State Government issued an Investment Management Standard that would serve as a template for all major investment decisions by government agencies. (See figure 2 below). The methodology of this standard has been adopted by IT firms in New Zealand and elsewhere for its potential role in defining the underlying logic of investment decisions for commercial IT projects.

Such an approach would also enhance the value of industry-based tertiary capstone projects. In many instances students are able to apply their IT skills to solve business problems; the question remains as to whether the problem was one that fitted in with the organisation’s overall goals and did in fact yield sufficient benefits that could be measured over time.

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Figure 1: The context of Investment Management

Investment Management
Is the logic for the planned investment clear?
Is there a sound business case to proceed?
Were the expected benefits achieved?
Project Management
Will the project be completed within budget?
Will it deliver to its planned schedule?
Were the expected products delivered?

Figure 2: The Investment Life Cycle



Of particular relevance is the creation of tools that enable decision makers to be more effective at implementing investment policy and reducing the risk of investment failure. The time to develop business cases and determine what benefits will accrue from any investment decisions can be drastically reduced using a set of short, facilitated workshops associated with developing an Investment Logic Map (ILM) to be followed by an Investment Concept Brief (ICB). For the purposes of this paper we will concentrate on these two aspects of the Investment Management standard to firstly see how they can be implemented in a commercial environment and secondly what implications they have for student projects.

## 2 Investment Logic Map

This is one page document that depicts the logic of the underlying investment. All decision makers present are encouraged not only to focus on what how an investment can proceed but also *why* it should. Investment drivers, objectives and benefits are identified in an independently facilitated workshop of two hours duration. These will be

weighted in importance so that an appropriate amount of resources may be apportioned to them.

Any claimed benefits yielded by the proposed investment will need to be expressed in measurable terms by KPIs (key performance indicators). Assigning target values and dates will verify whether a particular KPI has been met. This will form the basis of ongoing investment review.

In Figure 4 we see a representative example of how an ILM and ICB can be used to qualify an investment decision. The scenario is representative of a large New Zealand IT firm planning changes to its server by adopting a WAN.

All weightings for investment drivers, objectives and benefits add to 100%. These are identified in the Investment Logic Map. To enable the required changes for the investment (in this case) items of capital expenditure are voted toward the project after consideration in the Investment Concept Brief. Strict key performance indicators have been determined to allow the ongoing monitoring of the investment. The investment will yield a positive Net Present Value (NPV) and payback period in line with predetermined requirements generated from the Investment Logic Map.

### **3 Investment Concept Brief**

A business organisation would wish to make an investment decision that is aligned with its overall strategies and goals. A decision that is able to be implemented is also important. To conform to these parameters, and in addition, generate a solution that represents a truly innovative use of its scarce resources, the firm needs to develop an Investment Concept Brief. This brief would also assist in prioritising an array of competing investment alternatives that may emerge – a “Dragon’s Den” scenario if you will.

Those developing an ICB would include the principal or investor as well as individual personnel responsible for:

- organisation policy and enterprise architecture
- specific innovative business technologies
- relevant and feasible developments in specific business areas
- advocating the existing solution proposed in the Investment Logic Map
- independent facilitation

A robust consideration of these matters, will likely point to an optimal solution, from both a strategic and realistic

viewpoint. Essential, too, in the process is to understand and record the implications of timelines, risks, costs and dependencies associated with the chosen solution. The rigour of the process should also assist in rejecting solutions that involve a duplication of (IT) resources, or fail to take advantage of the latest technologies or conform to overarching organisational policies. Independent facilitation makes it more likely that the decision makers have taken all relevant factors into consideration. (See Figure 3)

A two page Investment Concept brief will be provided by the facilitator immediately after the workshop outlining the outcomes for further consideration by the investor. The brief will serve as a cornerstone document that will assist in building a business case once the underpinning investment rationale has been established by the ILM and ICB.

An additional benefit of generating an Investment Concept Brief is that the anticipated benefits are well comprehended and are realistic. In making a subsequent Benefit Management plan as part of the Business Case, responsibilities for measuring or delivering the benefits can be assigned prior to the investment go-ahead, not after it, as has been the case with many investment decisions. This will make tracking the progress of the original investment decision easier and more explicit. Previously agreed KPIs and timelines also will make reporting on investments more understandable to those evaluating them.

#### 4 Implications for Student IT Projects

Even in a less sophisticated format, student IT projects could substantially benefit from adopting the rationale of a logical investment model as part of the project proposal. In this way, projects would have a rational reason to proceed as the benefits of a proposed project can be demonstrated and measured in the wider context of the clients overall strategy and available resources.

Students would therefore be made aware of the drivers behind even small IT projects and how they impact upon the choice of the objectives; they should also become very familiar with the benefits that will be yielded. The ILM methodology provides a means to consider carefully all of this. The ICB further analyses the logic model to see how these benefits may be enacted and resourced.

It is far more likely then that the best project will be identified and then able to proceed, and thereafter be monitored by agreed KPIs. The client is thus more likely to give ongoing commitment to the project as well.

These skills could likely be acquired through courses taken prior to the capstone IT project or as part of the project itself. So there may be implications for the curriculum where investment management concepts would need to be taught alongside project management principles.

The role of an independent facilitator to construct an Investment Concept Brief could be filled by a project supervisor or this could be formulated between the student and the client in smaller projects.

#### 4 Conclusion

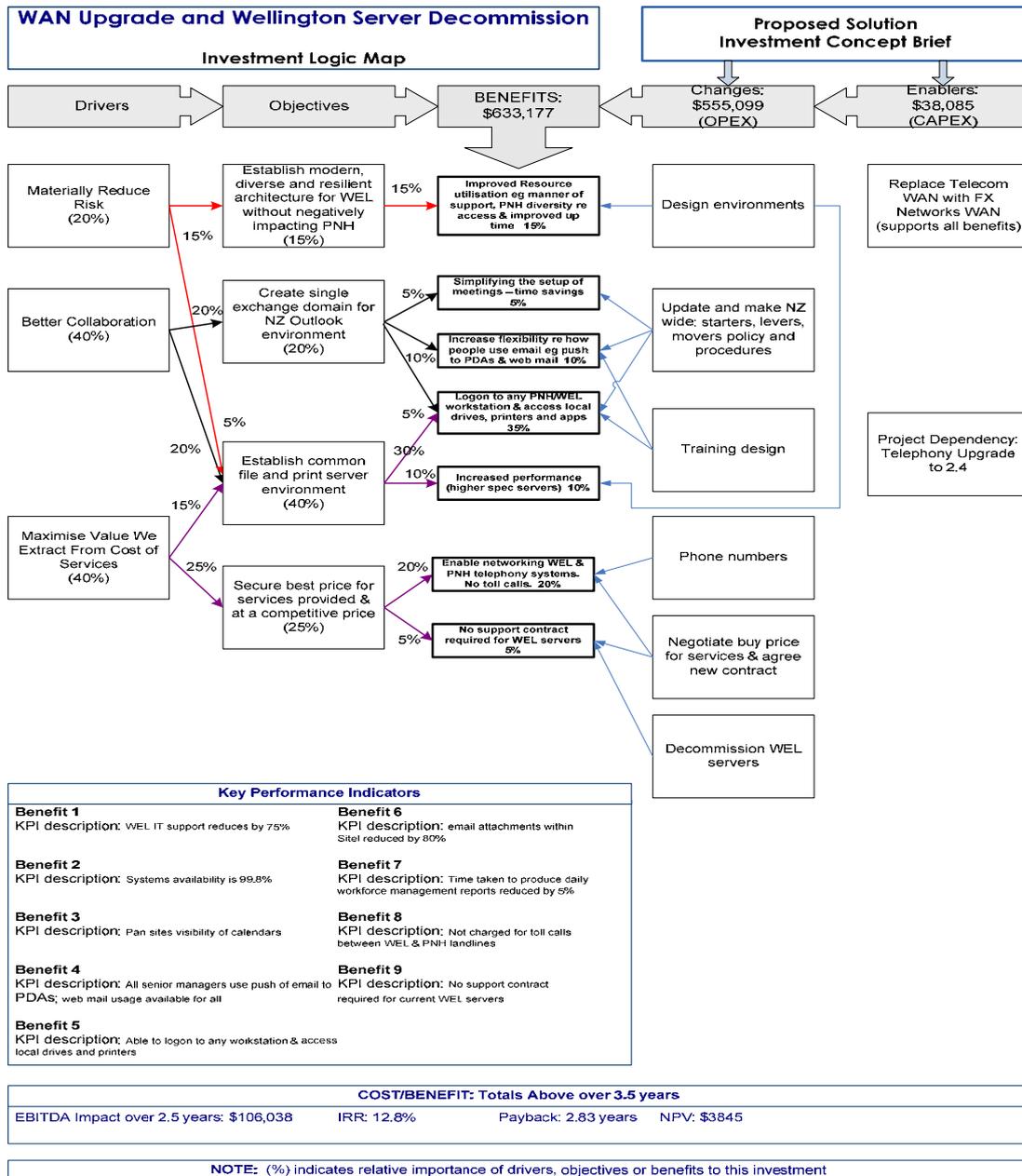
For the student of IT incorporating an investment logic model in a project means thinking beyond the scope of standard project management requirements. Where the IT investment sits within the wider organisation strategies must also be taken into account. A greater awareness of the clients total business requirements would need to be absorbed.

For the client there would be more involvement initially. On one hand the need to share more information and commit to a further process could make it seem be less

Figure 3; Investment Concept Brief Process			
ITEM	OBJECTIVE	PLAYER	TIME mins
Opening	Participants introduced Context & rules set	Facilitator	5
The Problem	Using Investment Logic Map the problem is articulated and the expected benefits are designed and understood	Solution Architect	15
Re-Shaping the Solution	Options and definitions of the solution preferred by the group are identified to best meet business needs  Does it align with the organisation's policies? Is it an innovative solution to solve the business needs? Is it sound and feasible from an implementation perspective?  The Investment Logic Map is amended to reflect any new thinking	Strategist  Innovator  Implementer	50
Concept Brief	Data to complete Investment concept Brief is gathered and agreed (policy alignment, timeframes, risks, dependencies and costs)	All	30
End	Concluding comments by Investor and Facilitator	Facilitator	5

attractive to take on a project. On the other hand the resulting benefits to the client would be so much more demonstrable through project proposals using such a model as well as ensuring that the nominated project will be a best fit for with their wider business wider objectives.

Figure 4: Investment Logic Map



## 5 References

State Government of Victoria: Department of Treasury and Finance. Investment Management

<http://www.dtf.vic.gov.au/CA25713E0002EF43/pages/investment-management> Accessed 20 April 2008