11-19-2008

The Business Case for ICT Investment Evaluation in Nonprofit Organisations

Jan Braaksma
University of Groningen, a.j.j.braaksma@rug.nl

Arnold Commandeur
University of Groningen, a.l.commandeur@rug.nl

Egon W. Berghout
University of Groningen, e.w.berghout@rug.nl

芽|Sprouts Working Papers on Information Systems ISSN 1535-6078

The Business Case for ICT Investment Evaluation in Nonprofit Organisations

Jan Braaksma
University of Groningen, The Netherlands

Arnold Commandeur
University of Groningen, The Netherlands

Egon W. Berghout
University of Groningen, The Netherlands

Abstract
This paper describes the design of an evaluation method for nonprofit organisations. This method is referred to as the nonprofit business case model. The paper describes the special characteristics of (public) nonprofit organisations compared to for-profit organisations. The paper defines the concept of public value and a framework for the creation of public value and a business case model for nonprofit organisations is introduced. This research concerns research in-progress. The framework for the nonprofit business model and the underlying framework for public value creation will be validated and improved in ongoing research.

Keywords: Public value framework; Investment evaluation; Nonprofit business case information

Permanent URL: http://sprouts.aisnet.org/6-60

Reference: Braaksma, J., Commandeur, A., Berghout, E.W. (2006). "The Business Case for ICT Investment Evaluation in Nonprofit Organisations," University of Groningen, Netherlands . *Sprouts: Working Papers on Information Systems*, 6(60). http://sprouts.aisnet.org/6-60

The business case for (ICT) investment evaluation in nonprofit organisations

Jan Braaksma, Arnold Commandeur and Egon Berghout
CITER- Centre of IT Economics Research
University of Groningen, Faculty of Economics
P.O. Box 700
9700 AV Groningen
The Netherlands
Corresponding author: janbraaksma@gmail.com

Abstract: This paper describes the design of an evaluation method for nonprofit organisations. This method is referred to as the nonprofit business case model. The paper describes the special characteristics of (public) nonprofit organisations compared to for-profit organisations. The paper defines the concept of public value and a framework for the creation of public value and a business case model for nonprofit organisations is introduced. This research concerns research in-progress. The framework for the nonprofit business model and the underlying framework for public value creation will be validated and improved in ongoing research.

Keywords: public value framework**,** investment evaluation, nonprofit business case, information economics, stakeholder analysis, new public management

1. Introduction

There seems to be a growing awareness that nonprofit organisations require management practices similar to commercial organisations. Drucker (1989): “Twenty years ago, management was a dirty word for those involved in nonprofit organisations. It meant business, and non-business prided themselves on being free of the taint of commercialism and above such sordid considerations as the bottom line. Now most of them have learned that nonprofits need management even more than business does, precisely because they lack the discipline of the bottom line.”

“New Public Management” (NPM) is the management philosophy, which supports the idea of managing public organisations similar to commercial organisations (Larbi 1999). “New Public Management is a global phenomenon in which public organisations increasingly use management practices drawn from the private sector” (Larbi 1999). There is an increasing pressure on public managers to justify their actions. “Accountability and public visibility are nowadays important keywords for a board of directors” (Cornfort 2005).

Due to major internal and external differences, a straightforward application of commercial management practices will not always be possible or prudent. This paper gives an overview of a study investigating the possibilities to apply business case techniques to justify ICT investments and other capital expenditure at a major government agency in the Netherlands.

The case study organization concerns the Dutch “Institute for Employee Benefit Schemes”. The Minister of Social Affairs and Employment is directly responsible for this institute with 20.000 staff members and labour data concerning 8 million civilians.

The outline of this paper is the following. First, the differences between profit and nonprofit organisations will be analysed. Secondly, the concept of value will be elaborated upon and a public value framework will be introduced in which the differences between nonprofit and profit organisations will be discussed. Finally, the nonprofit business case model will be introduced based on the public value framework.

2. Characteristics of nonprofit organisations

The nonprofit business case model presented in this paper is based on the specific characteristics of nonprofit organisations. Therefore, first the differences between profit and nonprofit organisations are discussed

Various terms are used amongst researchers for nonprofit organisations, such as charity organisations and public organisations. In the Merriam Webster online dictionary (2006) nonprofit is defined as “not conducted or maintained for the purpose of making a profit whereas a for-profit is maintained for making a profit”. Nonprofit organisations are often seen as a synonym for charity or public organisations. Charity organisations indeed do not have the goal to make a profit and thus every charity organisation can be classified as a nonprofit organisation. However, not every nonprofit organisation is a charity or public organisation because not every non-profit is dependent on the generosity of people. A public organisation is a non-profit organisation supported by public funds and private contributions.

The proposed frameworks are intended for non-profit organisations, which can be charity organisations, public organisations or other types of non-profit organisations.

Speckbacher (2003) states that profit organisations have three important common features that reduce the complexity of performance management. “First the primacy of owners. Despite the great variety of businesses, all business enterprises share the characteristic of having one privileged interest group that is clearly defined; the interests of the owners of a firm guide the firms policy. Second are the homogeneity and measurability of owners interests. The interests of this privileged group concerning the preferred firm policy are relatively homogeneous and easy to communicate. Third is a common currency of assessment for assessment and delegation. Inside the firm, financial measures provide a relatively clear and accessible ultimate scorecard of performance that allows managers to assess different courses of action with respect of their value for owners.

Nonprofit organisations differ from profit organisations in various aspects (Speckbacher 2003). Nonprofit organisations have no single primary interest group that is invariably and clearly defined, homogeneous with respect to interests, and whose goals are easily expressible (through a performance measure) and transferable into the organisation for assessment of alternative courses of action. Nonprofit organisations serve a multitude of constituencies whose goals and needs may be quite heterogeneous. How value is perceived depends on the perception and interests of these constituencies and there are often many political aspects.

Bannister (2001) describes the differences between public and private perceptions of IT value resulting from a fundamental difference in motivation and complexity: “An important issue is the difference between commercial and public administration perception of value and benefits. The perception of the role of IT in, and the value of IT to, a commercial organisation is inherently different from that of the civil service for a number of reasons of which two are fundamental: motivation and complexity.”

Motivation

Bannister (2001) describes motivation by four factors: survival, growth, profitability and wealth creation.

- *Survival*
  Civil services seek to survive, just as private organisations. The threats for nonprofit organisations are however primarily political and social rather than economical.
- *Growth*
  Civil services may seek to expand, but the motivations for such growth differ from those of a private company. There are no shareholders demanding shareholder value creation. Growth can be driven by a wish to provide better or additional services or for less altruistic reasons such as power, promotion or control.
- *Profitability*
  Profitability is not an organisational goal of a civil service.
- *Wealth creation*

Civil service departments seek to create public value (wealth). Public value creation can be divided in a quantitative part (financially measurable) and a qualitative part (e.g. better service to the public).

Complexity

In general public sector decisions are particularly complex. Bannister (2001) gives the following reasons. Firstly, public sector decisions tend to have many more stakeholders. Secondly, the scale of expenditure by public bodies is in general far greater than that of private sector organisations. Thirdly, many public sector decisions have the force of law and are not optional. And finally, democratic and political considerations often add to the level of consultation required and consequently to the timescale needed to reach consensus about pursuing a course of action.

3. The concept of public value

The previous paragraph about the specific characteristics of nonprofit organisations led to the conclusion that the way value is created by nonprofit organisations is different compared to private organisations. Because the evaluation of intended actions is based on the created value it is necessary to define the concept of (public) value and the way value can be evaluated. (Guba and Lincoln 1989) “Values had been implicit in evaluation since first use; the very term evaluation is linguistically rooted in the term value”.

Value can be looked at from different point of views, depending on the perception of the viewer. “Value is subjective and that there is no such thing as an unambiguous, objective, measurable value: values are determined by a common set of rules that people agree upon at a certain point of time” (Wiggers 2004). Also, human and organisational decision making is often irrational when viewed from a strictly logical or economic perspective.

“In much of the literature on IT evaluation, there is no discussion of the concept of value per se. The meaning of the term is assumed to be implicitly understood. But absence of a clear conception of value can lead to misconceptions about how useful the measurements used to assess it are” (Bannister and Remenyi 1999).

There can be concluded that a method is needed which can handle the ‘bounded rationality’, ambiguity and the different individual perceptions of value. However the method should also bridge the gap between theory and practice such as is described by Bannister and Remenyi (1999).

Value seen from a economic perspective is often linked to financial measures like future cash flows which are discounted by an appropriate rate (also known as discounted cash flows techniques) (Brealey and Myers 1981; Copeland *et al.* 1991). An example of a commonly accepted traditional financial measure is Shareholder value. Rappaport defines shareholder value creation by introducing the Shareholder Value Network (Rappaport 1986).

The Shareholder Value Network (figure 1) depicts the essential link between the corporate objective of creating shareholder value and the basic valuation parameters or value drivers: “sales growth rate, operating profit margins, income tax rate, working capital investment, fixed capital investment, cost of capital and value growth duration”. Management should positively influence the value drivers to create shareholder value (Rappaport 1986).

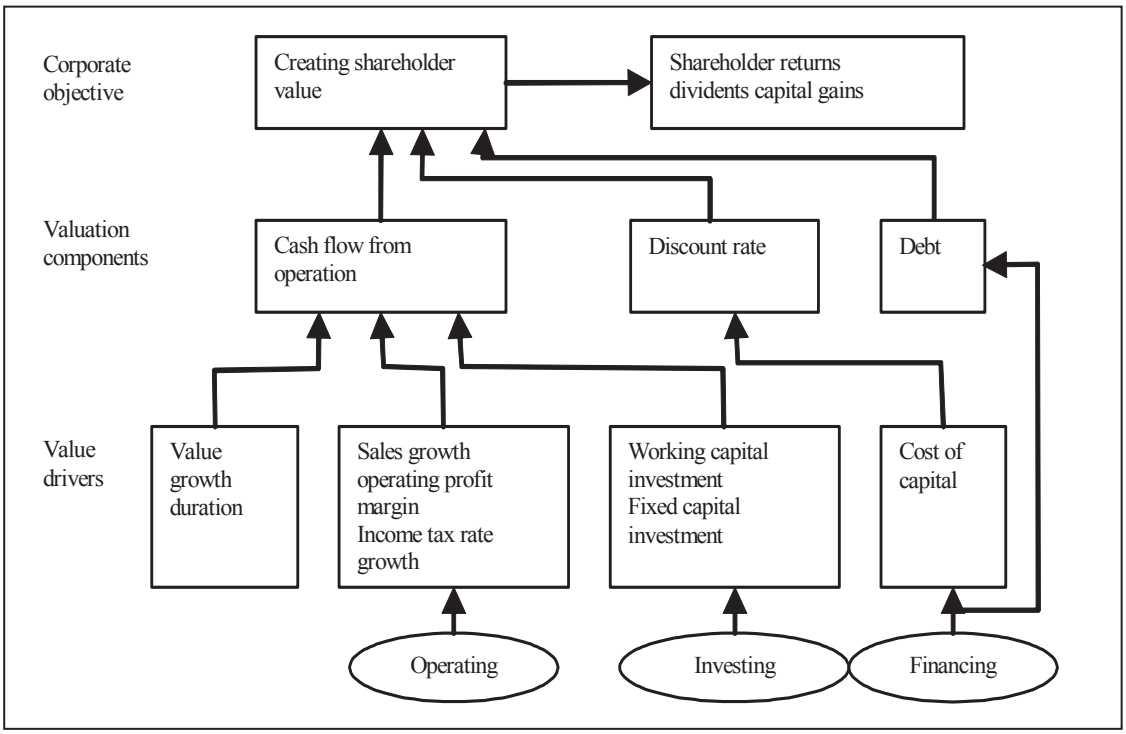

Figure 1: The Shareholder Value Network

The Shareholder Value Network of Rappaport (1986) shows a direct cause-effect between influencing the value drivers and creating shareholder value. The network is based on the concept of discounting future cash flows by an appropriate rate.

These traditional financial measures fall short to define value and benefits for interest groups other than shareholders. Therefore, the use of these traditional financial measures is not appropriate for defining value for public or nonprofit organisations. "It is already difficult for profit organisations to define value but for nonprofit organisations this is even more difficult because of the different interest groups and the absence of homogeneity and measurability of interests" (Speckbacher 2003).

Renkema and Berghout (1997) stress the evaluation of both financial and nonfinancial consequences when evaluating IT. They define the following concepts: *Financial* and *nonfinancial* consequences of information systems are discerned. Financial consequences are the consequences that are expressed in monetary terms and nonfinancial consequences are those that are not. The first refers to *profitability*, i.e. the accounting registration of *revenues* and *costs*. For the nonfinancial consequences the notion of *contribution* is used, which can be either positive or negative (Renkema and Berghout 1997). A *consequence* is defined as an event that arises from the introduction of the information system. Financial and nonfinancial consequences together determine the *value* of an information system. *Benefits* refer to all positive consequences and *burdens* to all negative consequences (table 1) (Renkema and Berghout 1997).

Consequences	Positive	Negative	Summation
Financial	Revenues	Costs	Profitability
	Cash inflow	Cash outflow	Cash result
Nonfinancial	Positive contribution	Negative contribution	Nonfinancial contribution
Financial and nonfinancial combined	Benefits	Burdens	Value

Table 1: Terminology of financial and nonfinancial consequences (Renkema and Berghout 1997)

Bannister provides a value categorisation of IT value for public (nonprofit) organisations (table 2), however, this can also be used for non-IT projects or actions (Bannister 2001). He describes a six way framework for value (six categories) starting with foundational (a traditional quantitative financial category) followed by: "policy formulation, democratic, service, internal and external".

The objective set by Bannister was to design a model of values which are independent of current government policies, dominant ideologies or fashions.

Category	Value	Core Values Supported
Foundational	Positive cost benefit Cost savings/reduced headcount Avoided future costs Positive return on investment Positive net present value Risk reduction Greater staff efficiency Better control/reduction in fraud and waste Increase in capacity/throughput Mandatory	Efficient and effective use of public funds Proper use of public funds Responsibility to the citizen as taxpayer Responsibility to government
Policy formulation	Better management information Support for decisions	Responsibility to government Proper use of public funds Responsibility to the citizen as participant
Democratic	Citizen access to information Transparency Flexibility Policy alignment	Social inclusion Justice Fairness Facilitating the democratic will Responsibility to the citizen as participant
Service	Good service to the customer Good service to the citizen Meeting public demands	Service to the citizen as customer Service to the citizen as client Service to the citizen as recipient Service to the citizen as claimant Respect for the citizen as individual Social inclusion Justice Fairness Equality of treatment
Internal	Improved staff morale Improved internal communications Improved ability to attract staff Better staff retention More motivated staff Empowering staff Greater staff creativity	Responsibility to the citizen as agent Respect for the citizen as individual Efficient and effective use of public funds Responsibility to the customer as taxpayer
External	Being abreast of the private sector Having a good public image Being abreast of other administrations Matching other external benchmarks	Reputation and image

Table 2: Taxonomy of IT values in Public administration (Bannister 2001)

In analogy on the “Shareholder Value Network” of Rappaport (1986) and based on the “Taxonomy of IT values in public administration” of Bannister (2001) and the “Terminology of financial and nonfinancial consequences” of Renkema and Berghout (1997) a public value framework is introduced.

This public value framework is inspired on the Shareholder Value Network of Rappaport (1986), but the goal of the Shareholder Value Network is maximization of shareholder value and the goal of a public value framework should be maximization of public value. The Shareholder Value Network of Rappaport (1986) gives a direct cause-effect between influencing the value drivers and creating shareholder value, the public value framework will give a cause-effect between influencing public value drivers and creating public value.

For the definition of public value drivers, the value categories as defined by Bannister (2001) in table 2 can be used. These value drivers have a direct impact on financial consequences (cash-in, or cash-out) and on nonfinancial consequences (positive and negative contribution) according to the “Terminology of financial and nonfinancial consequences” of Renkema and Berghout (1997) and will

result in value (benefits and burdens) for different stakeholders, which will ultimately create public value (figure 2).

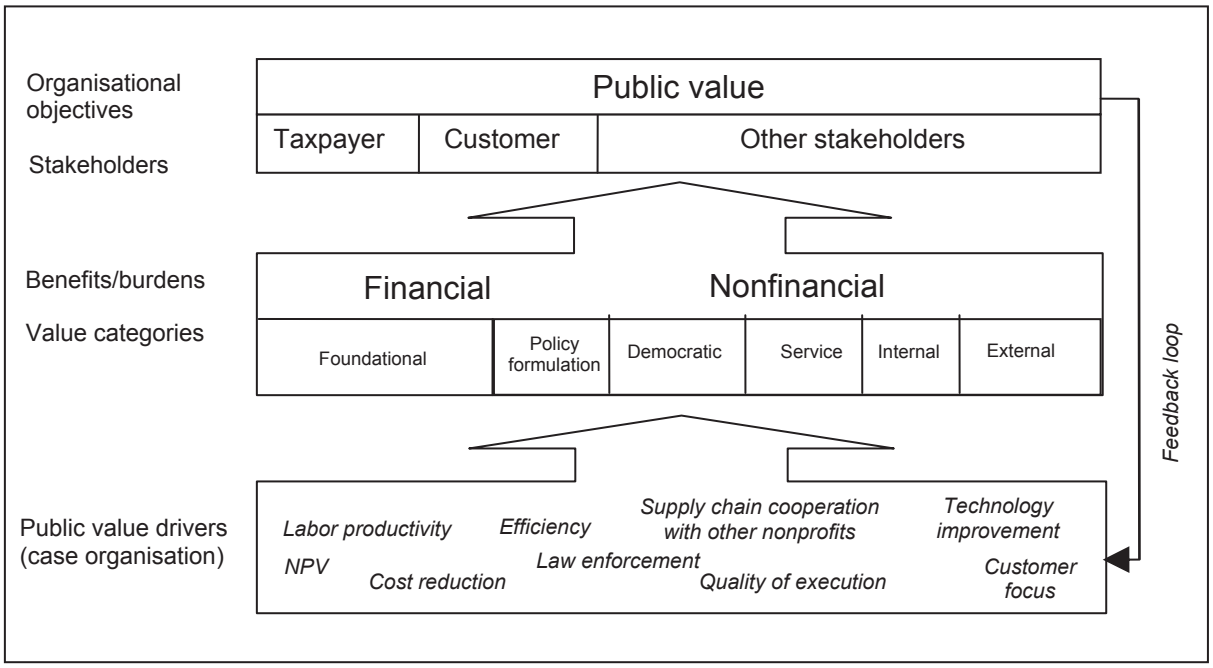

Figure 2: The Public Value Framework

The organisational objective of a nonprofit organisation is to create public value. This public value creation is based on an extensive stakeholder analysis. Ultimately, the benefits and burdens will flow to the stakeholders. The benefits and burdens are influenced by managing the public value drivers. In figure 2 the value drivers of the particular case study organisation are used.

As an example, lowering the public value driver 'cost reduction' will lead to financial value (category Foundational), which will lead to less money paid by the taxpayer and will lead to public value creation. Another example could be heightening the public value driver 'customer focus', which will lead to nonfinancial value (category Service), which will lead to higher customer satisfaction and as a result will lead to public value creation. It is the responsibility of the management of the nonprofit organisation to manage the value drivers in a way that maximal public value is created.

Because the values as perceived by the stakeholders will change over time, a feedback loop is drawn in the model. The extensive stakeholder analyses should give feedback about the changed value perceptions of the stakeholders. This could result in an adjustment of the existing public value drivers or the introduction of new drivers.

4. The business case as instrument to create value

In the previous section the notion of public (IT) value has been described. This section gives an overview of the literature on business cases, before describing the business case model for nonprofit organisations in section 5.

Research suggests that there is not one accepted definition of a business case. Remenyi defines the business case as "the justification for pursuing a course of action in an organisational context to meet stated organisational objectives or goals", whereas Schmidt (2002) says: "A business case is a decision support and planning tool that projects the likely financial results and other business consequences of an action or decision".

An important difference between Remenyi and Schmidt is their perception about the role and purpose of the business case. Remenyi (1999) describes the business case as an instrument for the

justification. Schmidt (2002) does not see the business case as an instrument for a particular phase. Another difference is the importance of strategic alignment which is emphasized by Remenyi (1999) in the definition.

The following definition of a business case is applied in this paper:

"A business case is a set of guidelines to analyse both financial and other (nonfinancial) consequences that result from the execution of an intended action. The purpose of a business case is to justify the intended action or to evaluate the execution of it."

Business cases are nowadays commonly used in for-profit organisations and in nonprofit organisations. However, current available business case models in nonprofit organisations lack usefulness when it comes to addressing the specific characteristics of nonprofit organisations such as defined earlier by Speckbacher (2003) and Bannister (2001).

Schmidt (2002) does not define a specific business case model, but he builds the business case around a strong financial (quantitative) analysis. He defines six important checkpoints (Schmidt 2002): 1. Are the subject, purpose and scope clear? 2. Are cash flow projections organized along a time line? 3. Does the case present the assumptions and methods for identifying benefits and costs? 4. Does the case include all important benefits and costs? 5. Does the case discuss critical success factors? 6. Does the case identify and measure risks?

Schmidt emphasizes the importance of scenario analyses, such as comparing the intended business scenario with a business as usual scenarios. "Accountants and others who deal with financial history have only one reality to find, measure and analyze. The business case author, on the other hand, has to create one or more possible future scenarios before anything can be measured or analyzed." (Schmidt 2002)

Remenyi (1999) developed a business case model, which combines qualitative and quantitative components. The business case model is based on broadly accepted insights such as the importance of strategic alignment in information system (IS) projects, value of stakeholders in changing processes, handling the (risk) factor technology and the value of financial (business outcome) analyses. Technology is an important part of the model but it can be left out when not applicable. Remenyi's (1999) model contains five elements: Business outcome, Stakeholders, Risks, Technology and Strategic alignment. Each of these five elements require detailed analysis and should be analysed in six steps. The elements will be briefly discussed in the following paragraphs.

Business outcome
Remenyi (1999) defines business outcome as "the desired effect of an intervention or change to a business process or practice. It is a business result, which has a measurable impact on the performance of the organisation. The output of an IT investment is the physical change to a business process or practice which will lead to the business result as required in the outcome." The business outcome is the heart of the IT investment business case designed by Remenyi. "A comprehensive statement or set of statements of business outcome will need to be thoroughly developed and will thus consist of three distinct levels or components. These components are referred to as the macro model, the meso model and the micro model."

Stakeholders
Remenyi emphasizes the importance of stakeholders knowledge. "Stakeholder knowledge and stakeholder management is central to the preparation of a comprehensive IT investment business case. It is also central to the management of the IT project itself." Remenyi defines three major groups of stakeholders: the users/owners, the IT professionals and the finance and administration staff. Stakeholders should be analysed to make it possible to evaluate stakeholder relations to minimise any opposition from the stakeholders as well as to ensure continued support.
Remenyi proposes the use of a stakeholder assessment table which can be used to clarify the position of each stakeholder group. This table can also be used to discuss with each group their position in the table and how they could be encouraged to move to a more positive position.

Strategic alignment
Alignment is important for an organisation to achieve internal and external organisational goals and deliver value. The failing of strategic alignment often leads to non-value delivering projects. Remenyi (1999): "Strategic mismatches or misalignments are major causes of IT project failure and any professionally produced IT business case needs to rigorously address this subject."

Remenyi therefore sees this part as an important component of a business case. He does not propose one type of strategic analysis but suggest the use of theories like Porter's value chain (Porter 1985).
"A company's value chain is a system of interdependent activities, which are connected by linkages. Linkages exist when the way in which one activity is performed affects the cost or effectiveness of other activities. … Careful management of linkages is often a powerful source of competitive advantage because of the difficulty rivals have in perceiving them and in resolving trade-offs across organizational lines." (Porter 1985)
The alignment of the intended action should be quantified where possible or otherwise should be described qualitatively.

Technology
No matter how sound the proposed IT intervention is from a business perspective, it is necessary to take a careful look at the technology issues to verify the viability of the project. To do this it is necessary to develop a technology feasibility statement that outlines the various technology platforms and components required i.e. hardware, software, communications, etc. (Remenyi 1999).

Risks
Remenyi gives the possible risks associated with the intended action a central place in his business case model and defines risk as the propensity of the actual costs and outputs of the IT development to vary from the original business case. Remenyi elaborates on a risk framework in which he distinguishes three risk categories: business, development and architecture risks. For each of the categories three individual risks are discussed.

5 The Nonprofit business case model

In analogy on the model of Remenyi (1999), the business case model of Schmidt (2002) and the presented public value framework (figure 2), a nonprofit business case model is designed. The nonprofit business case model is based on five components: Strategy, Technology, Stakeholder cooperation, Financial and Risks. All components are associated with the intended action, which will be discussed in the following paragraphs. The Nonprofit business case is based on the business case model of Remenyi (1999), but the way the components are interpreted and how the components are being implemented is different. The Nonprofit business case model is illustrated in figure 3.

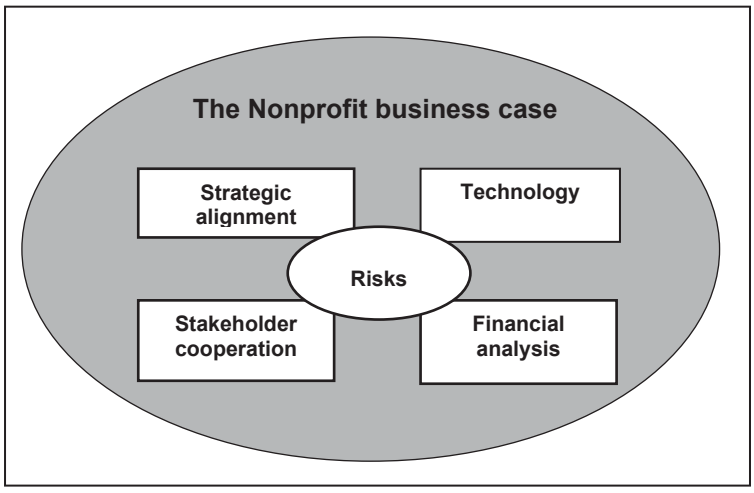

Figure 3: The Nonprofit business case model, based on Remenyi (1999)

5.1 Strategic alignment

The analysis of strategic alignment is the most important element of the proposed nonprofit business case model. Whereas Remenyi (1999) and Schmidt (2001) build their business case around a financial analysis, the nonprofit business case model should be built around the strategic analysis.

It is not straightforward that an (IT) investment is aligned with corporate strategy for a number of reasons: The corporate strategy may not be known to the proposers or sponsors or users/owners of the system. Furthermore, it is possible that the corporate strategy may change during the period in which the IT investment project is under development (Remenyi 1999). Therefore the company goals set by the board of directors are chosen as the guideline to which projects should be aligned (table 3).

Strategic alignment		High negative contribution (-3)	Average negative contribution (-2)	Low negative contribution (-1)	No contribution (0)	Low positive contribution (1)	Average positive contribution (2)	High positive contribution (3)
Value drivers	Work unemployed people				X			
	Customer focus			X				
	Supply chain other non profits				X			
	Quality			X				
	Law enforcement					X		
	Transformation		X					
	Business operation			X				
	Efficiency				X			
	Cost reduction				X			

Table 3: Example results of a strategic alignment analysis

Value drivers as defined in the public value framework (figure 2) set by the board of directors of a nonprofit organisation can be put in table 3. A positive contribution on a value driver means a positive value contribution.

5.2 Stakeholder cooperation

Stakeholders are considered to be of key importance when it comes to value creation in nonprofit organisations. Every time a business case is made, it is very important for the analysis to assess the interests and possible cooperation of stakeholder groups. This is especially important for nonprofit organisations because not only their cooperation is important, they also influence the way value and costs of an action can be perceived. As discussed in earlier paragraphs it is very important to deal with the complexity of multiple interest groups and the lack of homogeneity in each group. Benefits and burdens should always be analysed from the point of view of the stakeholders.

If the goals set by the board of directors are right, in other words when stakeholders are supporting them, and the intended action is in favour of the identified stakeholder, than stakeholder cooperation should be expected to be positive (table 4).

Stakeholder cooperation	Active opposition (-3)	Against (-2)	Passive resistance (-1)	Neutral (0)	Passive in favor (1)	In favor (2)	Active cooperation / Projectsponsor (3)
Customers						x	
Employees				x			
Management			x				
Government					x		
Suppliers				x			
…							

Table 4: Example results of the stakeholder cooperation analysis

5.3 Financial analysis

Remenyi uses macro, meso and micro models to analyze the financial impact and refers to the financial analysis as business outcome (Remenyi 1999). For the nonprofit business case model only one level is applied. The most important reason for this is that the financial analysis should be made as simple as possible, and it should be comparable with other business cases and scenarios. (Schmidt 2002).

Drucker (1998) has made a statement about the financial analysis needed to analyse an investment. "We have known for a long time that there is no one right way to analyse a proposed capital investment. To understand it we need at least six analyses: the expected rate of return: the payout period and the investment's expected productive life: the discounted present value of all returns through the productive lifetime of the investment: the risk in not making the investment or deferring it: the cost and risk in case of failure: and finally the opportunity cost." In the Nonprofit business case model, six measures have been identified; structural cash flows (expenditures), project cash flows, Labor productivity changes (%), Reduction program costs, Net Present Value (NPV) and the Payback time of the project (table 5).

The measure 'reduction of program costs' is particular to the case study organisation at hand. Program costs are defined as the costs of the total unemployment social security program. If a small extra cash out flow of the case study organisation would lead to a significant reduction of the cash outflow of the Dutch unemployment social security program, this would be an interesting investment, leading to public value creation.

An Excel spreadsheet is developed in which the aforementioned measures are automatically calculated based on the by Berghout and Renkema (1997) described benefits and burdens.

	2005	2006	2007	2008	2009
Structural cashflows (10^6 euros)	10	5	5	5	5
Projectcashflows (10^6 euros)	5	5			
Labor productivity changes (%)	100	102	104	104	104
Reduction program costs (10^6 euros)	n.a.	n.a.	n.a	n.a	n.a

	2005-2009
Net Present Value (10^6 euros)	10
Payback time (years)	2

Table 5: Example results of the proposed financial analysis

5.4 Technology

Technology is an important enabler of public value creation, (e.g. by using ICT to achieve cost reduction public value is created). Therefore it is needed to look critical to deviations with current architecture or future information policies. Practically this means that alignment should be measured between the intended technology being used and the ICT architecture policies and the ICT information planning.

Technology	Large deviation (-3)	Considerable deviation (-2)	Minimal deviation (-1)	Conform (3)
Conformity with reference architecture			**x**	
Degree of alignment with information policies				**x**

Table 6: Example analysis of the risks associated with technology

5.5 Risks

A business case of intended actions should give attention to the risks (Schmidt 2002, Remenyi 1999) "Acquiring an understanding of the risks involved in an IT project is a central part of developing a comprehensive IT investment business case. The risk profile of the proposed IT investments needs to be clearly stated and if it is too high the IT business case should not be approved." Risks can be defined as the chance that real output and costs differ from the built business case. Parker and Benson (1988) discern four factors affecting risk within IT investments:

1) *Project or organisational risk*: focuses on the degree to which the organisation is capable of carrying out the changes required by the project. This organisational capability includes: management support for change, maturity in the use of computing in the organisation, a realistic assessment of the tasks necessary to complete the project through understanding of the underlying business processes and functions.
2) *Definitional uncertainty risk*: assesses the degree to which the requirements and/or the specifications are known when an IT investment is undertaken. During completion of the project requirements/specifications after all change.
3) *Technical uncertainty risk*: assesses the technical feasibility of the project and whether it can be carried out by the responsible IT department.
4) *IS infrastructure risk*: emphasis on the readiness of necessary hardware, software, communication, electricity, and so on.

Risks will become apparent by analysing the four suggested main components (strategic alignment, stakeholder cooperation, financial analysis and technology) of the proposed Nonprofit business case model. It is however needed to address specific risks if they are not already mentioned in the first four elements of the business case.

6. Implementation of the nonprofit business case model

The Nonprofit business case model is part of the project management of the case study organisation. Its format is mandatory, the proposer of a business case is however free in the amount of 'evidence' used to build the business case. The standardised format describes different scenarios which are scored on the different elements of the business case. It is based on the current accounting method and it uses terminology which is well known within the organisation. The business case will be used by senior management to evaluate the different scenarios and for final decision making.

The business case is used during the complete lifecycle of a change, from the initial decision making till implementation and afterwards for the evaluation of the project. The business case is an important tool for the "cashing of benefits". This means that the business case can be used as a proof for agreements made before and during the execution of a project.

Organisational learning and learning from the past is very important for an organisation. Therefore it is proposed to file all business cases centrally (also the rejected ones).

7. Conclusions

In this paper a business case model is presented which is developed for a major nonprofit organisation. Nonprofit organisations have specific characteristics compared to for-profit organisations. There is hardly literature about the evaluation of IT in nonprofit organisation. The presented Non-profit business case model is based on the ideas of Rappaport (1986) for value generation in organisations and on work of Bannister (2001) on nonprofit organisations, and Remenyi (1999) and Schmidt (2002) on business cases.

The concept of (public) value is often hardly defined in the various literature and implicetly assumed to be known. The public value framework, which is presented in this paper describes a direct cause and effect between the public value drivers and the creation of public value.

The nonprofit business case model should assess these public value drivers and, consequently, public value. To do so, the nonprofit business cases model covers five areas, being: strategic alignment, technology, risks, stakeholder cooperation and financial analyses. It is assumed that a standardised mandatory business case based on these five elements will lead to higher transparency, better decision making, a higher comparability of several scenarios, better governance and as a result will lead to higher public value creation.

It is important that the board of directors of any non-profit organisation adopts the business case as an instrument and it should be mandatory to use it for every major change or intended action. The business case should be embedded in the project/program management of an organisation.

The paper presents research in progress and the business case model will be evaluated on the practically usefulness and can as a result be adjusted in the future.

The business case model is currently also considered by seven other public ICT controllers and ICT managements (totally employing about 70.000 FTE).

References

Andresen, J.L. (2001), *A Framework for Selecting an IT Evaluation Method - in the Context of Construction*, Danmarks Tekniske Universitet.

Bannister, F. Remenyi, D. (1999), Value perception in IT Investment Decisions, *The Electronic Journal of Information Systems Evaluation,* Vol. 2, No. 2.

Bannister F., (2001), Citizen Centricity: A model of IS value in Public Administration, *The Electronic Journal of Information Systems Evaluation,* Vol. 1, No. 2.

Benson, R. J., Bugnitz, T.L., Walton, W. B. (2004), *From Business Strategy to IT action,* John Wiley & Sons, Inc.

Brealey, R., Meyers, S., (1991), *Principles of corporate finance*, McGraw-Hill.

Drucker, P. (1989), *What business Can Learn from Nonprofits*, Harvard Business Review, July-August.

Copeland, T., Koller, T., Murrin, J. (1995), Valuation, *Measuring and Managing the Value of Companies,* John Wiley & Sons, Inc.

Cornforth, C. (2005), *The Governance of Public and Non-Profit Organisations - What Do Boards Do?,* Oxford Routledge.

Dameri, R. P. (2005) Using the Balanced Scorecard to Evaluate ICT Investments in Non profit Organisations. *The Electronic Journal of Information Systems Evaluation*, Vol. 8, No. 2, pp 107-114.

Guba, E., Lincoln, Y. (1989), *Fourth Generation Evaluation,* Sage Publications.

Larbi, G. (1999), *The new public management Approach and crisis states*, United nations research institute for social development.

Parker, M. Benson, R. (1988), *Information Economics, Linking Business Performance to Information Technology*. Prentence-Hall, inc New Jersey.

Porter, M. E. (1985), Competitive advantage, Harvard Business Review, July-August.

Rappaport, A. (1986), *Creating Shareholder Value, the new standard for business performance,* Free press.

Remenyi, D. (1999), *IT investment making a business case*, Butterworth Heinemann.

Renkema, T.J.W., E.W. Berghout (1997), Methodologies for information system investment evaluation at the proposal stage: a comparative view, *Information and Software Technology*, Vol. 39, No. 1, pp 1-13.

Renkema, T. J. W. & Berghout, E. W. (1999), *Investeringsbeoordeling van IT-projecten: een methodische benadering,* Kluwer Bedrijfsinformatie, Deventer.

Schmidt, M. J. (2002), *The Business Case Guide* Solution Matrix Ltd.

Speckbacher, G. (2003), The Economics of Performance Management in Nonprofit Organizations, *Nonprofit Management & Leadership*, Vol. 13, No. 3.

Wiggers, P., Kok, H., & De Boer-de Wit, M. (2004), *IT performance Management,* Computer Weekly.

citer

The business case for (ICT) investment evaluation in nonprofit organisations

Jan Braaksma
Arnold Commandeur
Egon Berghout

University of Groningen
Centre of IT Economic Research
P.O. Box 800
9700 AV Groningen
The Netherlands

C

ITER WP/005/JBACEB

September 2006

CITER Mission

CITER is an independent research group within the Department of Economics, University of Groningen. Our research is focused on the economics of information technologies. Our research aims at understanding and analyzing the dynamics and the processes of development, distribution and implementation of information and communications technologies and improving their efficiency and effectiveness.

We investigate particular economic issues in the economics of information technologies. For instance, the differences between 'Open' and 'proprietary' technologies, the characteristics of hardware and software commercial demand and supply and the diffusion of new technologies. We also study the efficient and effective use of those technologies, how we can improve IT management and increase the benefits of investment in information technologies.

The objectives of our research are especially useful for organizations using information technologies and to firms competing in this arena, as well as to policy makers and to society as a whole.

Our research is conducted in close cooperation with industry, non-profit organizations and governmental partners, as our field of research is subject to frequent technological and political changes.

Contact information

University of Groningen
CITER-WSN827
P.O. Box 800
9700 AV Groningen
The Netherlands
Tel. +31-50-363-3721
info@CITER.nl

Projects and main venues of research

- Cost/benefit management of IT.
- Decision-support methods for implementation decisions within organizations.
- Evaluation of legacy systems.
- Innovation and technical change in ICT.
- 'Open' vs. 'proprietary' software modes of development.
- Software patenting and appropriation strategies.
- Tools and strategies for the IT Control Officer.

Sponsors

UWV

Getronics PinkRoccade

Researchers

Prof. dr. E.W. Berghout	e.w.berghout@rug.nl
Drs. Ing. A.L. Commandeur	a.l.commandeur@rug.nl
C.E. Elsenga, MSc	c.e.elsenga@rug.nl
Dr. E. Harison	e.harison@rug.nl
Dr. ir. M.H. Nijland	m.h.nijland@lse.ac.uk
Prof. dr. P. Powell	mnspp@management.bath.ac.uk
Dr. T.J.W. Renkema	t.j.w.renkema@rug.nl
Dr. Ir. H. Sassenburg	hanss@sei.cmu.edu
P.M. Schuurman, MSc.	p.m.schuurman@rug.nl
E.J. Stokking, MSc.	e.j.stokking@rug.nl
S. Orie, MSc.	sieraadj@asset-control.com

citer

芽|Sprouts

Working Papers on Information Systems | ISSN 1535-6078

Office:
Sprouts
University of Amsterdam
Roetersstraat 11, Room E 2.74
1018 WB Amsterdam, Netherlands
Email: admin@sprouts.aisnet.org

芽|Sprouts