

Benefits of information system projects: The tale of two countries



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Abstract

International results emphasise that information systems (IS) projects fail at an alarming rate and do not contribute to the strategy of the organisation. The results also indicate that there is a shift in how IS project success is measured, i.e. towards benefits realisation. This raises the concern whether organisations understand the notion of benefits management. Secondly, does benefits management have an impact on the success rates of IS projects and ultimately the success of the organisation itself? Organisations within the Netherlands and South Africa were targeted to benchmark the benefits management process employed by the organisations against best practices. Semi-structured interviews were conducted within 33 organisations and the interviewees expressed their views on the adoption of the benefits management process. The results indicate that although organisations are aware of and are implementing benefits management best practices, there is still a notion not to relate the delivered benefits back to the promised benefits within the business case. Benefits management also plays a role within individual projects and not just within programme management. Organisations can reap more benefits from IS projects when benefits are stipulated up front and are managed throughout the project/programme life cycle. Enhancing benefits realisation implies that the return on investment improves and that organisations ultimately are successful and sustainable.

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1. Introduction

Organisations realise that information systems (IS) contribute to the overall performance of the organisation and that IS are not merely providing a service (Bennington and Baccarini, 2004). IS are entrenched in the day-to-day running of the organisation and aid in the realisation of the vision and strategies of the organisation (Buchta et al., 2007). Despite this, organisations are not reaping the benefits of IS-related projects and as a direct consequence, IS are not reaching their full intended potential and do not contribute to the implementation of the organisational vision and strategies.

The increased adoption of IS directly influences the spend on IS and their deployment (Turban and Volonino, 2012). In 2012 South Africa spent US\$12.91 billion on IS and the forecast is that

South Africa will spend approximately US\$14.59 billion in 2014 and US\$18.18 billion in 2017 (IDC, 2013). The comparative figure for the Netherlands is €10.3 billion by 2016. Contrary to the huge amount of money spent on IS projects, it was already highlighted in 2005 that organisations in the United States of America (USA) spent nearly \$59 million in cost overruns and some \$81 million in cancelled IS projects. These losses are attributed to the inability of organisations to adequately perform benefits management (Bennington and Baccarini, 2004; Dhillon, 2005). This trend of increased IS spending and the lack of benefits realisation seems to be an international phenomenon which has not been solved over the last decade (Love and Irani, 2004; Marnewick, 2014; Naidoo and Palk, 2011). The evaluation of IS investments and the subsequent realisation of the promised benefits is a complex affair which is either avoided or dealt with ineffectively (Lin and Pervan, 2003). This was highlighted by Smith et al. (2008) who established that the focus of IS projects is

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on the artefact and not necessarily on the promised benefits that often form the justification for IS projects. As such, many IS projects have failed to show the net benefits identified in the initial project justification. Although most organisations do have existing processes in place to evaluate IS investments and benefits management, only about one-third have a formal benefits realisation methodology (Lin and Pervan, 2003). A literature review done by Coombs et al. (2013) of 32 journal articles over the last 20 years focusing on benefits management highlights the extent to which the concept of benefits management within IS projects has been neglected and remains underdeveloped.

Longitudinal research in South Africa has revealed that IS project success has not improved and projects are failing at a rate of between 12% and 27%. The research also indicates that the success of IS projects is no longer measured just on the triple constraint, but that the focus is shifting towards the realisation of the organisational objectives and of benefits. Given the failure rates, the indication is that South African organisations are not realising the promised benefits either and are thus experiencing the same concerns as international organisations. This article addresses the concern whether organisations within the Netherlands and South Africa are adhering to the benefits management best practices which will ultimately lead to the success of the organisation itself.

There is currently no research on benefits management and the impact that the delivery or non-delivery of benefits has on IS project success and ultimately the success of the organisation. Research is also being undertaken on benefits management through the theoretical lens of programme management, although organisations expect benefits from individual projects. This article followed a qualitative approach and interviews were conducted with role players in the Netherlands and South Africa. The results indicate that organisations are aware of the benefits management process but are not necessarily harvesting the benefits associated with IS projects.

The article is structured in the following way: the first section focuses on current literature and explores the phenomenon of IS project success within the context of benefits realisation. The second section focuses on the research methodology, followed by an in-depth analysis of the interviews. The analysis focuses on the way organisations are currently applying benefits management. The article concludes with a discussion of the findings and the impact on current theory and future research.

2. Literature review

The rationale for benefits management is motivated by the huge cost of IS projects versus the low return on benefits associated with IS projects. As stated by Bennington and Baccarini (2004) as well as Dhillon (2005), organisations cannot afford to waste money on IS projects that do not deliver on the benefits. Smith et al. (2008) argue that the focus of IS projects is on the delivery of project artefacts rather than the targeted benefits that often form the justification for such projects. As such, many IS projects have failed to show the net benefits identified in the initial project justification. This argument is echoed by Breese (2012), who suggests that benefits management within IS was developed to

counter the technocratic way IS investments were undertaken. The focus has moved away from delivering a purely technical solution to a solution that is technical in nature but delivering benefits to the organisation as a whole and underpinning the sustainability of the organisation in the long run. This renewed focus implies that all IS projects should be scrutinised for the promised benefits that they should deliver and this should be the major motivation for initiating an IS project. Lin and Pervan (2003) as well as Zwikael and Smyrk (2012) suggest that some of the reasons for the failure to monitor whether the projected benefits of IS were being realised by an organisation, are the difficulty to assess benefits after a project has been implemented as well as the cost involved to undertake proper post-implementation reviews on benefits.

Benefits management forms an integral part of organisational change management and the primary focus is to increase the successful delivery of quantifiable and meaningful business benefits to an organisation. The change can be stimulated through the implementation of new or upgraded information technology (IT) or IS. The focus is on how business areas will benefit from IS-related changes, and benefits management introduces a framework to start thinking beyond the completion and delivery of an IS project. Ward et al. (2007) is of the opinion that organisational, process and relationship changes create business benefits and need to co-evolve with IS-related changes.

The literature on benefits management can be divided into two major areas. The first major area is the role standards and methodologies play. The Project Management Body of Knowledge (PMBOK® Guide) of the Project Management Institute (PMI) refers to benefits as a way to measure the success of the project itself (Project Management Institute, 2013a). However, benefits and the associated management and their realisation are not seen as part of project management, but rather as the function of programme management. An entire knowledge area, Program Benefits Management, is dedicated to the management of benefits (Project Management Institute, 2013c). Five processes have been identified, i.e. (i) benefits identification, (ii) benefits analysis and planning, (iii) benefits delivery, (iv) benefits transition and (v) benefits sustainment. It must be noted that a programme is defined as a “group of related projects that are managed in a coordinated way to obtain benefits not available from managing them individually” (Project Management Institute, 2013c). The standard for portfolio management does not mention benefits management. It is clear from the PMI’s perspective that benefits management is the sole responsibility of programme management. The Association for Project Management Body of Knowledge (APMBOK) defines benefits management as the identification of benefits and how they will be measured and managed throughout the project (Association for Project Management, 2006). Although the project manager is responsible for the delivery of the benefits, the project sponsor uses the benefits to determine whether the project is a success or not. This is in contradiction of PMI’s views where there is no reference to the role that the project manager must play in the benefits management process. Managing Successful Programmes (MSP) has an activity called *Realizing the Benefits* (Sowden, 2011). This activity outlines the preparation, delivery and reviewing of activities to take the capability delivered and embeds it within the business operations to realise

the promised benefits. Benefits identification forms part of the business case in the PRINCE2 methodology (Office of Government Commerce, 2009). Identification of the benefits include the identification of objective measurements, the collection of these baseline measurements and how, when and by whom the benefit measurements will be collected (Office of Government Commerce, 2009). The management of benefits is described in the Benefits Review Plan. This plan is used to define how and when the various project benefits can be realised. It is used during the closing of the project to determine the post-project benefit reviews that are required.

The second major area is academic and scholarly research. Ward and Daniel (2012) created a benefits dependency network that is used to link, in a structured way, the required organisational and IT changes needed to realise the benefits. According to Ward and Daniel (2012), benefits cannot be gained without business change per se. Bradley (2010) states that a benefit is an outcome of change itself which is perceived as positive by the project's stakeholders. He identifies six steps to realise benefits from investments, i.e. (i) set vision and objectives, (ii) identify benefits and changes, (iii) define initiatives, (iv) optimise initiatives, (v) manage initiatives and (vi) manage performance. Although individual projects might deliver benefits, step 4 within his process focuses on combining projects into a possible programme to maximise the benefits. Ashurst (2011) is of the opinion that IS have no inherent value and that the benefit of IS comes from the organisations using the systems themselves to enable their employees to be productive. He created a framework that comprises four competencies, namely (i) benefits planning, (ii) benefits delivery, (iii) benefits review and (iv) benefits exploitation. The focus is on the benefits that each individual IS project realises and not necessarily on a programme of IS projects. For the purpose of this study, the benefits management process of Bradley (2010) was used. The reasons are that it is the most comprehensive process and that it focuses on both projects and programmes to deliver the promised benefits.

This raises the question: what role does benefits management play in the delivery of IS projects? The starting point in defining benefits is the business case. The business case should detail what benefits can be expected from IS investments, as well as how feasible it is to achieve these benefits (Ward and Daniel, 2012). The purpose of the business case is to steer the project or programme towards the achievement of the vision and it is also used for assessment at periodic reviews to determine whether the project/programme can continue or should be cancelled (Bradley, 2010). The business case should be updated regularly to cater for organisational and environmental changes.

In research conducted within the South African context, 398 respondents were interviewed to determine the purpose of a business case (Marnewick, 2014). It is evident from the results that project benefits and the associated tracking of these benefits did not form part of the interviewees' mindset. The tracking of project benefits was used as a justification for the associated business case in only 22% of the cases. This is in line with Eckartz et al. (2009) who stated that the business case is only used for the approval of funding and to track benefits throughout the project life cycle.

In order to gain a better understanding of the state of IS/IT projects, the Standish Group began to run a survey which later became known as the Chaos Chronicles (StandishGroup, 1995). The purpose of the report is to document the success rates of ICT software development projects in particular (StandishGroup, 1995; Yeo, 2002). However, since inception, the Chaos Chronicles have illustrated that little has changed regarding the success, challenge and failure rate of these types of projects. Similar research has been conducted in South Africa which became known as the Prosperus report and which focused on IS projects. Longitudinal research within the South African context on how IS project success is measured is displayed in Fig. 1.

Although success rates have improved, the implication is still that for 2013, 66% of South African IS projects were not successful. This implies that US\$9.6 billion were potentially wasted in 2014 on IS-related projects. In an emerging economy such as South Africa, this is unacceptable. If this trend continues, then it implies that South Africa will waste US\$7.38 billion in 2017 (IDC, 2013).

The South African studies also focuses on what constitute IS project success. The success criteria can be divided into two groupings where the first grouping focuses on the traditional criteria, i.e. time, cost, scope and quality. The second grouping focuses more on the perspective of what was intended or expected to be accomplished by the project which include criteria such as 'User satisfaction', 'Met project requirements', 'Delivery of business benefits' and 'Stakeholder satisfaction'.

The goal of this research is to determine the benefits management process that organisations are using and to benchmark the benefits management process against best practices. This is done with the assumption that organisations are moving towards measuring IS project success based on benefits and not just the triple constraint.

In order to achieve this goal, three research objectives were defined:

1. To determine whether benefits are defined in the business case, given that the measuring of IS project success is shifting towards benefits realisation and sustainability
2. To determine what processes are followed by organisations to carry out benefits management
3. To determine whether promised benefits are actually realised by organisations

The three objectives are based on the assumption that a closed-loop system is used that starts with the development of strategic objectives and ultimately measuring the results achieved against these objectives.

The next section elaborates on the research methodology that was used to achieve the above objectives.

3. Research methodology

A qualitative research methodology was used to seek illumination and understanding through extrapolation of the findings at hand. This methodology was selected in favour of a quantitative one as the researcher wished to gain an in-depth understanding of

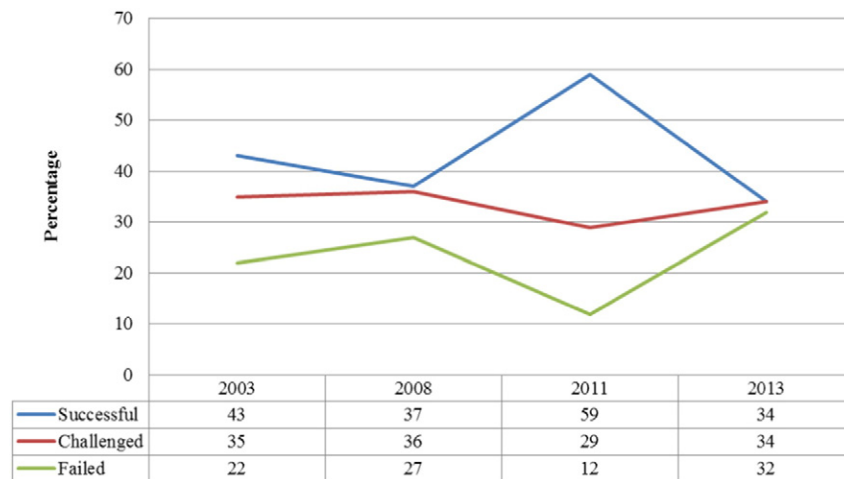


Fig. 1. Successful, challenged and failed projects (2003 – 2013) (Joseph and Marnewick, 2014; Labuschagne and Marnewick, 2009; Marnewick, 2013).

the practice within the context of best practices. A quantitative research methodology would have been limiting as it focuses mainly on the relationships between various sets of facts (Bell, 2007; Thomas, 2013).

Within the qualitative research methodology, various research methods exist, such as interviews, case studies, observation and action research (Altrichter et al., 2002). Interviews were chosen as the research method as they allow the researcher to understand more fully the subjects' experiences, as well as to learn more about their answers to the questions posed (Cunningham, 2008). The advantage of an interview is that it provides a broad range and depth of information, as researchers develop a relationship with the subjects and they can be flexible during the interview itself (Kwok and Ku, 2008).

The following process was applied to gather the necessary information: firstly, an extensive literature survey was conducted to determine the best practices involved in benefits management and the subsequent realisation of benefits. A total of 30 references consisting of books and peer-reviewed journal articles were consulted in relation to benefits management, published between 1998 and 2014. These references excluded project management standards and methodologies. This literature review provided the necessary theoretical foundation to proceed to the next step in the research process.

The second step in the process was to develop a semi-structured interview guide focusing on two aspects:

1. The interviewee's role and responsibilities within the organisation: The purpose of exploring this aspect was to ensure that the appropriate interviewee had been selected. It also determined whether the interviewee responded to the various questions from an authoritative, participative or awareness perspective, based on the length of employment within the position itself, as well as within the organisation.
2. The way in which organisations are managing benefits, the role of business cases, as well as the way projects are initiated and linked to the organisational strategies. This aspect formed the essence of the research and the various questions within this section were based on the findings of

the literature survey. The aim was to determine whether actual practice follows the theoretical best practices as suggested by literature.

The third step in the research process was to identify project, programme and portfolio managers, functional unit managers and C-level executives of organisations who could participate in interviews. The inclusion of functional unit managers and C-level executives was prompted by the fact that some organisations do not have project, programme and portfolio managers. In these organisations the responsibility of benefits management is often allocated to a functional unit manager or a C-level executive.

The interviewees were identified through two processes:

1. Targeting large professional organisations and requesting a list of project, programme and portfolio managers employed by them. The identified managers were then contacted directly and invited to participate in the research. The main criterion that was used to identify potential organisations was that they had to be well-known companies. The companies selected are the leaders in their respective industries. Although companies might be leaders in their industries, it does not necessarily mean that they are leaders when it comes to benefits management. The research tries to establish whether leading companies are applying the best practices of benefits management in their day-to-day running of the business. The majority of the South African companies are international conglomerates. In the case of the financial institutions, the four major financial institutions were chosen. On average the South African companies generate revenue in excess of a USD 1 billion. The same logic applies to the selection of the Dutch companies. Two companies were state-owned utility companies while the remaining companies are multi-national conglomerates. The revenue generated by the Dutch companies are also in excess of USD 1 billion. It is therefore important to determine how these companies are performing benefits management as they do touch the lives of millions of customers and employees. These organisations were listed companies on either the Johannesburg Stock Exchange or Euronext. The rationale was that these corporates were more

likely to adhere to best practices and industry standards, and that they would use projects as a vehicle for the implementation of strategic objectives. These organisations are well-known to the public and the way that they employ benefits management is of importance.

- Collaborating with professional project management bodies in the Netherlands (International Project Management Association: IPMA) and South Africa (Project Management South Africa: PMSA). These bodies invited individuals on behalf of the researchers to participate in the research.

Participation was voluntary and formal permission was obtained from interviewees to use the results of the interviews for the study. Assurance was given that all results would be treated as confidential and that anonymity would be ensured. A total of 33 interviews were conducted over a period of 6 months with 21 interviewees from South Africa, 10 from the Netherlands and 2 from Croatia. In most of the instances only one interviewee per organisation was selected. The selection was based on the interviewee's knowledge with regards to benefits management as well as the seniority of the interviewee. The interview guide was divided into three main sections: the first section focused on introductory questions, the second section focused on the benefits management process and the last section on the strategic success of the organisation which is linked to project success and the realisation of the benefits. The benefits management section comprised of 10 questions focusing of the way that benefits are identified and managed before, during and after a project. These questions were based on the processes of Bradley (2010) and the Project Management Institute (2013a, 2013b, 2013c). The aim of the questions was to determine the role the business case plays within the authorization of IS projects as well as the processes used to monitor and manage benefits throughout a project's lifespan (Zwikael and Smyrk, 2012).

The work experience related to benefits management and strategy implementation is reflected in Table 1. The respondents were evenly spread regarding their experience, providing insight into whether respondents with relatively little experience followed best practices versus respondents with years of experience.

Most of the respondents came from the financial and insurance industry (50%), with 15% from the ICT services industry, telecommunications (10%) and national railways (8%). Companies within the 'Other' grouping included amongst other a fast-moving consumer goods (FMCG) company and a stolen vehicle recovery company.

The interviews were transcribed directly from the digital voice recordings and the transcripts checked for accuracy and correctness by comparing them to the digital voice recordings. The transcripts were returned to the interviewees to verify that they were an accurate and authentic copy of what was said in the interview. Interviewees were given the opportunity to change or remove anything with which they did not feel comfortable. The verified transcriptions were rendered anonymous and then loaded into a computer-assisted qualitative data analysis (CAQDAS) software package for analysis, along with any supporting documentation (Lewins and Silver, 2008).

Table 1
Duration of employment.

	Financial institution	Telecommunications	ICT services	Railways	Other
1-3 years	18%	5%	5%	–	9%
4-5 years	5%	–	–	4%	8%
6-10 years	9%	–	5%	4%	–
>10 years	1%	5%	5%	–	–
	50%	10%	15%	8%	17%

The software package enables researchers to 'code' the transcriptions for analysis purposes, that is to test the relationship between issues, concepts and themes, and to develop broader or higher order categories (Lewins and Silver, 2008). Coding also facilitates the development of a detailed understanding of the phenomena which the data is seen to be presenting (Atherton and Elsmore, 2007). Coding is influenced by various factors, for example the research aims and the kind of data, as well as the depth of the analysis (Lewins and Silver, 2008). Codes can be generated inductively or deductively (Mangan et al., 2004). Inductive codes imply that salient aspects are defined within the data and deductive codes are assigned to predefined areas of interest. The researchers used inductive codes to prevent bias towards any predefined areas of interest. These predefined areas of interest are normally guided by a literature survey (Atherton and Elsmore, 2007; Mangan et al., 2004), which in this study had already guided the composition of the questionnaire. Inductive coding also provided a richness that was not possible through deductive coding.

Inductive coding follows a three-step process (Lewins and Silver, 2008; Von Seggern and Young, 2003):

- Perform open coding: small segments of data are considered in detail and compared with one another. This step generates large volumes of codes which encapsulate the notion of "what is going on".
- Perform axial coding: all the codes that were generated are analysed. Codes are rethought in terms of similarity and difference and consolidated where appropriate.
- Perform selective coding: the researcher revisits the codes, and instances in the data which pertinently illustrate themes and concepts are identified. Conclusions are validated by illustrating instances represented by and grounded in the data. A total of 210 codes were identified, after which they were clustered.

Based on the inductive coding process, the data was analysed in order to develop a better understanding of the phenomenon at hand.

4. Analysis of data

Each of the processes were analysed in detail to provide insight into how business are executing these processes. Similarities and opposing views to the best practices are highlighted in the discussion of each process.

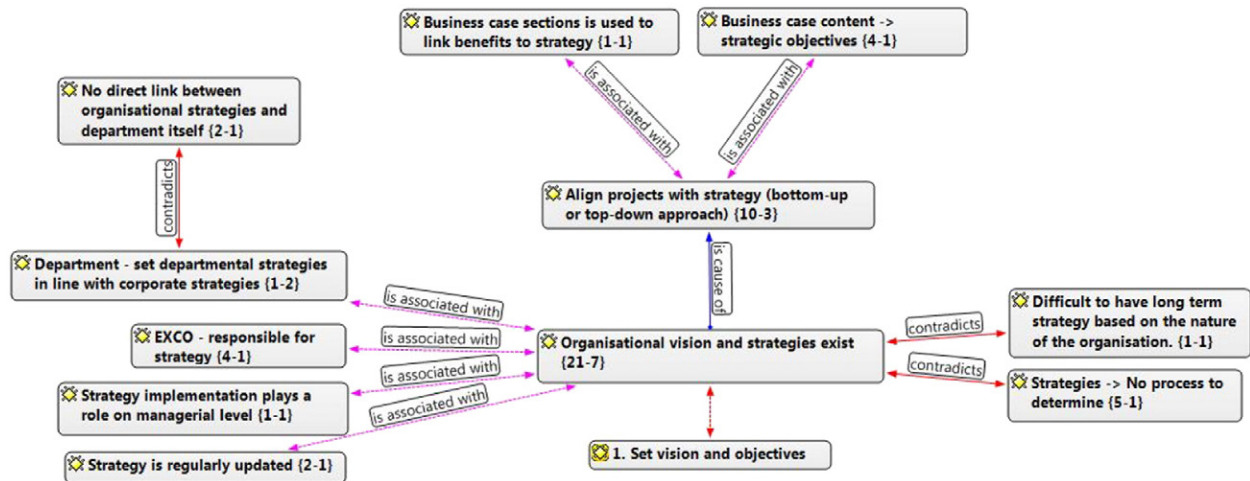


Fig. 2. Qualitative analysis of interviews: Determining vision and objectives. The first number in the bracket, e.g. {21-7}, shows how often the code was applied. It provides some information on the ‘groundedness’ of a code, i.e. how relevant this code was in the data. The second number indicates the density, that is how many other codes this code was linked to.

4.1. Set vision and objectives

The first two processes within benefits management are to determine the organisational vision and subsequent objectives and to identify the associated benefits. The vision and objectives are used to link any IS project’s benefits back to the vision. Fig. 2 is a graphical representation of the network diagram and it captures the essence of the interviews. The network diagrams (Figs. 2 to 6) are constructed using the *Network View Manager* tool within Atlas.ti. The network diagrams are created based on the codes and associations that were used during the coding process of the interviews. The codes were grouped into families which are based on the processes as per Bradley (2010). The families are then generated using the *Network View Manager* tool. The relationships between the various codes are colour-coded to explain the relationship as well as to add readability to the figures.

The interviewees were in agreement that an organisational vision does exist and that the subsequent strategies are derived from the vision. One interviewee summarised it as “... strategic perspective we have a core vision and mission obviously”. The same sentiment was echoed by an organisation in the Netherlands, but the organisation also informed all staff of the vision: “Yes. We have a clear strategy in place that is deployed within the organisation. All new employers go into an introduction and they get familiarised with the strategy.”¹ It is evident that the formulation of the vision is an annual process and that it is updated regularly. “The top management obviously go through a phase of strategic visioning which they do once a year ...” The strategies in an FMCG company are, however, updated more often in that they “go through this process at a high level - we redo it about every six months and we review it every month”.

The strategies are then further rolled down to departments which are responsible for their “... own strategies as well internally to our department and they are more how to mitigate the risk and how to actually minimise the risk of entry and what the business has taken”. There was also the view that “Yes the [company] strategy is farfetched” and that it is not applicable to the IT division of the organisation.

There was also an opposing view where there is no process in place to derive strategies from the vision. Responses included “Yes there is no clear view of how to get there” as well as “That’s a good question. I haven’t found a strategy yet, but actually there should be one”.

“The next step is then a cascading down in the organization, so we start with the high level strategic objective, we then look at what we call business planning, but that is really taking a strategic objective and cascading it down per functional unit, so what does that mean for a functional unit and what do we need to do to achieve that.” This reasoning was supported where one organisation “categorise[s] the projects according to the strategic themes”.

In contrast with this best practice, some respondents did not have a process in place to derive strategies and link benefits to these strategies: “It’s a fairly lively discussion and I did it this morning also that we do have a strategic strategy and a translation to the strategic targets is still missing, we still try, as we have several business units within the company.”

The business case is used to document the promised benefits and the linkage to the strategies. This allows organisations to link IS projects back to the strategies and create the link between strategies and IS projects. Serra and Kunc (2015) established that business cases are effective tools to determine whether the promised benefits are delivered and provide value to the organisation.

The results from the interviews support the theoretical notion that organisations must have a vision and subsequent strategies. These strategies are cascaded down to departmental or functional level, which translates them into IS projects.

¹ Quotes are verbatim and might include grammatical mistakes as English was not a native language to some of the interviewees.

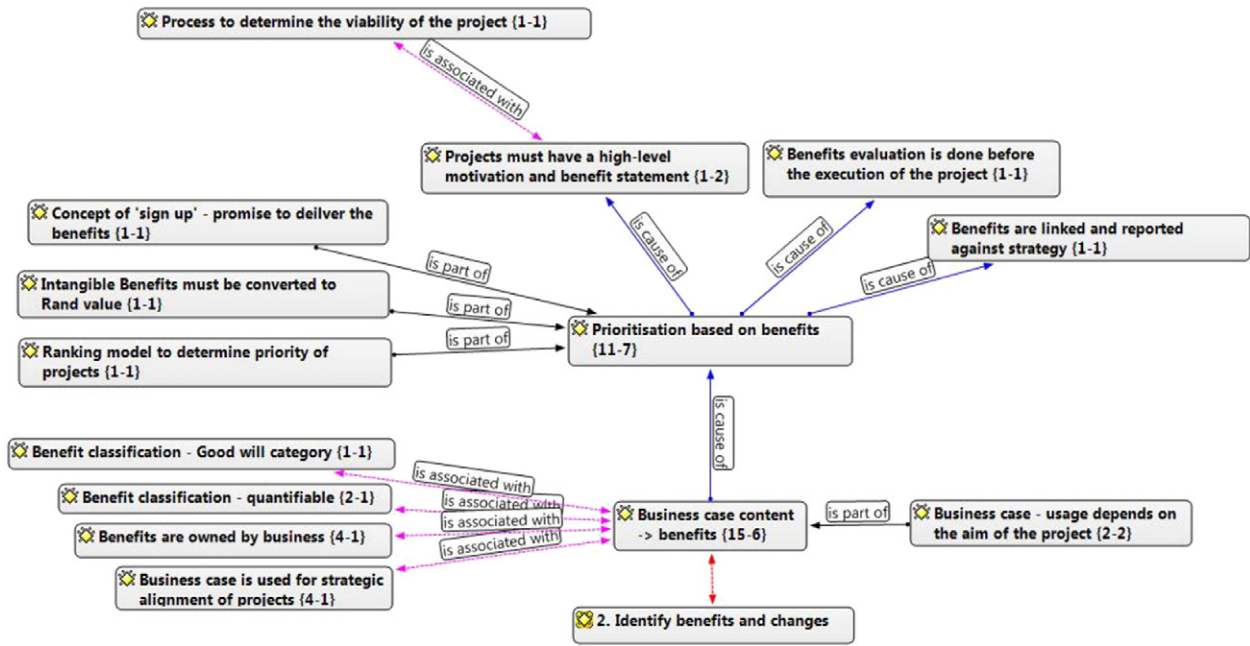


Fig. 3. Qualitative analysis of interviews: Identification of benefits.

Proposition 1. The presence of an organisational vision and subsequent strategies are prevalent for the success of benefits realisation. Information Technology strategies should be derived and linked to the organisational strategies. This should be done in accordance with governance frameworks such as COBIT (IT Governance Institute, 2012). IS projects should be motivated through a business case which links the promised benefits to the IT strategies and organisational strategies.

4.2. Identify benefits and changes

The next step in the benefits management process is the identification of the benefits. Fig. 3 shows the network diagram for this process.

The business case is the vehicle that organisations use to link benefits to the strategies. “I made a process which you have to follow for making business cases and one of the goals within the business cases is that you define which strategic target you support. What are your benefits, at what time, all those kinds of things” because “by defining benefits properly and forming the scope of your project, you can form the deliverables to get the right buy in and all of those other things.” The business case must relate both quantitative as well as qualitative benefits: “What is in it are the benefits, why are we doing it, the benefits being quantity or quality and both aspects have to be addressed.”

The next step in this process is the prioritisation of projects once they have been approved based on a sound business case where “we use a model that we prioritize, so you look at

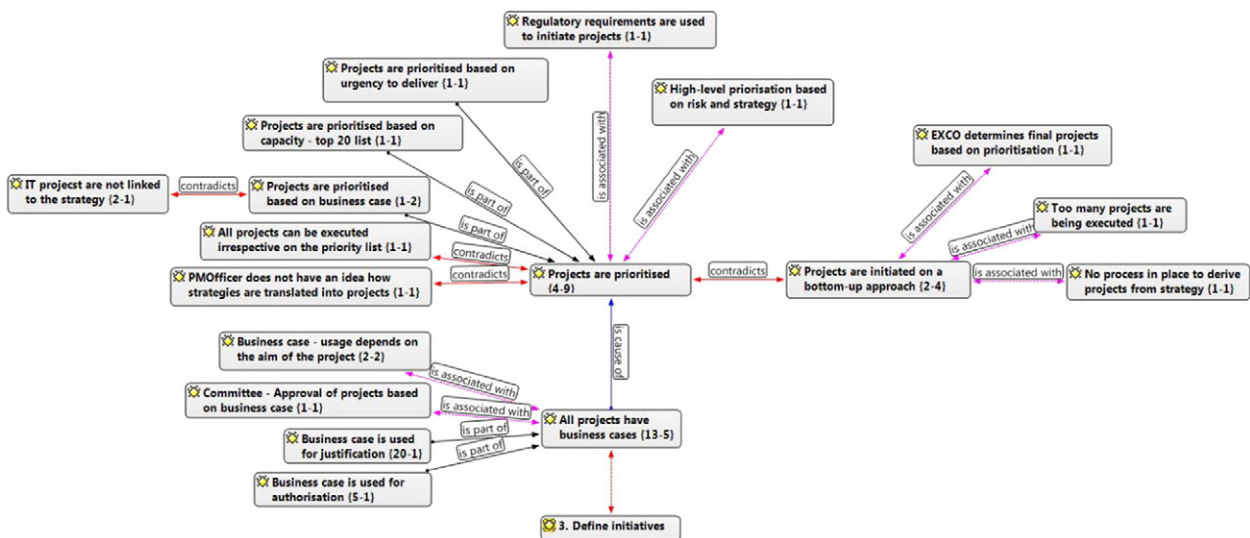


Fig. 4. Qualitative analysis of interviews: Defining initiatives.

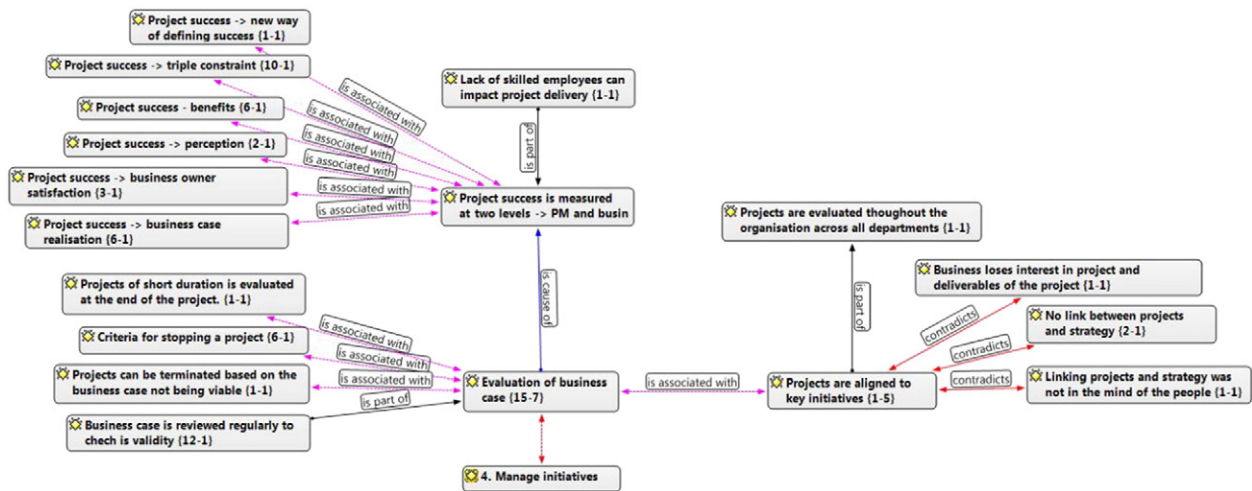


Fig. 5. Qualitative analysis of interviews: Manage initiatives.

revenue, generating customer experience, different objectives in terms of our prioritization framework and in the business case, within the fundamental sect in terms of them getting resources”. Another interviewee supported this notion, stating that “the business case is used for to select and approve future projects that require any funding approval”. The process of prioritisation is contentious, where an interviewee “introduced a kind of ranking model it’s in debate again because people are used to a little bit and now we are starting to ask questions of how can we improve it and stuff like that”. Some organisations use a formal process to prioritise projects, whereas others have an informal process.

Proposition 2. The business is the vehicle to manage promised benefits to the actual harvesting of these promised benefits. The value of a business case can be improved when the promised benefits are clearly stated. The promised benefits should also be formulated to ensure a strong linkage with the organisational vision and strategies. The business case with the well-formulated benefits are then used to prioritise projects.

The next step is then to initiate and define the projects based on the prioritisation list.

4.3. Define initiatives

Although projects are prioritised, this does not necessarily imply that they are also initiated. Initiation depends on the availability of resources.

Projects that are initiated from the prioritisation list will by default all have business cases, as shown in Fig. 4.

There are, however, exceptions and “you may well have something that is lower down on the list but it doesn’t mean it cannot be executed”. What is evident is that the availability of resources plays an important role in the initiation of projects. Projects will only be initiated once there are sufficient resources to fund and resource the project. This underlines the Inputs–Transform–Outcomes (ITO) model of Zwikael and Smyrk (2012). The value of initiatives are dependent on inputs such as resources. There are also still some organisations that follow a bottom-up approach as long as the project addresses a business objective: “You follow basic, you can sit and come up with an idea and motivate as long as it addresses one of the business objectives.” Another issue raised was that due to this lack of alignment, “we are also executives of those projects as well and that is something that we have to do on top of and it’s to my

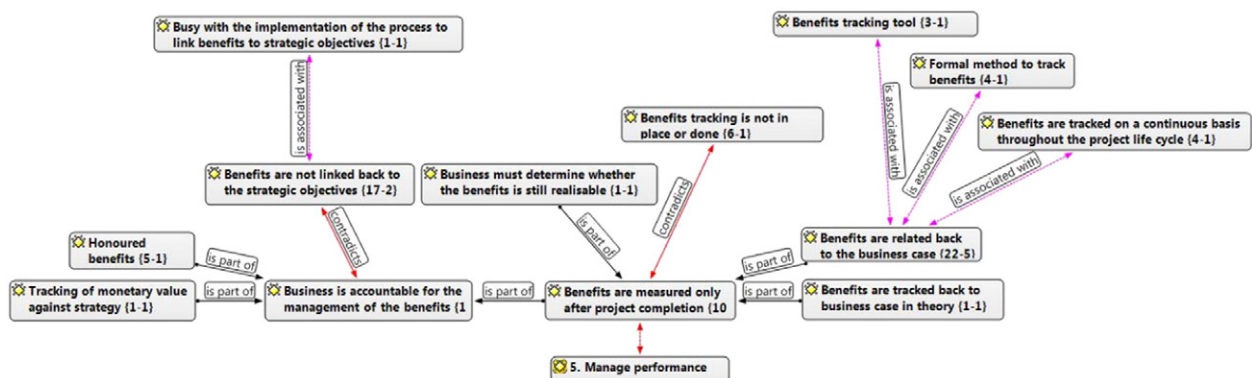


Fig. 6. Qualitative analysis of interviews: Manage performance.

opinion they do much projects so there are executives of too much projects”.

Proposition 3. A governing structure should approve all IS projects based on a sound business case. IS projects should be prioritised and initiated taking the promised benefits into consideration. Organisations must take care of over-committing on the initiation of projects as initiation must be done within the available resources.

4.4. Manage initiatives

An IS project should be continuously monitored against the business case and the promised benefits during execution. The results indicate an anomaly as the majority of the interviewees did not manage the benefits during the execution phase. As one interviewee put it: “*To be honest I don’t think we revisit it often enough.*” This mentality is supported by “*so do we really go back and check if the business case is relied on these assumptions. Are those all still valid? Probably not as good as we should.*” The implication is that IS projects can continue to be executed and completed even though organisational and external factors have changed. One organisation is more rigorous in the processes in that “*We then put it back to what we had a project steering committee every quarter and that projects gets put forward there and we say this project is no longer viable, we then have to can the project.*” Another interviewee reported that “*during the execution of the project, the business case is checked whether it’s still valid and sometimes it’s not valid and then we kill the project.*”

The network diagram in Fig. 5 supports research by Marnewick (2013) that the success of a project is not measured just on the triple constraint, but also includes aspects such as benefits realisation and business owner satisfaction. An interviewee from a pension fund management company phrased it as follows: “*realization of added value of benefits, it’s a major point, not money, not time, it’s not a reason why you do projects.*”

Proposition 4. The presence of governance controls should focus on the evaluation of the business case and promised benefits throughout the project life cycle. Organisations should place the necessary governance controls in place to ensure that this evaluation takes place on a regular basis. Project managers can also include these governance controls at the various stage-gates of the project to ensure that it forms part of the overall project schedule.

4.5. Manage performance

Fig. 6 illustrates the results of the process that organisations perform to ensure that benefits are realised as promised in the business case.

The analysis of the results indicates that business is accountable for benefits management. The project manager can only deliver the solution or service that enables the benefits, but business must take ownership of the realisation of the benefits that are associated with the delivered product or service. “*The project executives have to take care of the benefits or those project benefits realization*” and

they need to ensure “*that they don’t just put things down to get approval and get it going and then walk away without any ramifications*”.

Although there is an agreement that business must be accountable for the benefits, business does not have a process in place to track the benefits, as the following quotes indicate:

- “*so there is no time and there is no attention for actually getting the benefits realised or maximised even. So there is little attention for that*”
- “*That process in itself is not in place currently*”
- “*I don’t think there is a loop back. I haven’t seen that there is a loop back.*”

Although there is no process in place to link the benefits back to the organisation vision and strategies, organisations do measure the benefits. “*So when I close out my project I have what I call a post implementation review where my stakeholders sit around the table and we go through line item by line item and the objectives of the project have they been met.*” In some instances the delivery of benefits is tracked throughout the project life cycle. The results from the interviews is supported by research done by Naidoo and Palk (2011). Their analysis of 74 organisations from South Africa, Nigeria and Zimbabwe, reveal that only half of these organisations are achieving benefits 50 to 75% of the time. They concluded that relatively less formality is actually applied to appraising, managing and realising IT benefits. Their results are consistent with the results of this study implying that nothing has changed from a South African perspective over a period of 5 years.

To address this notion where organisations do not have a formal process in place, Zwikael and Smyrk (2012:S18) suggests that “*a project’s life should be extended (beyond execution) to accommodate outcome realization and measurement.*” Such an extension will allow organisations to focus on the delivery of the promised benefits and not just on the delivery of the product or service itself.

Proposition 5. Organisations should extend the project life cycle beyond the traditional life cycle if they want the realisation of the promised benefits to improve. This extension should focus on the realisation of the promised benefits and should be part of the governance framework of the organisation. The governance framework should include corporate, IT and project governance. The responsibility of realising the benefits should be that of the business case owner.

5. Discussion

The purpose of generalisation is to determine whether the knowledge gained through these 33 interviews can be transferred to other relevant situations (Kvale and Brinkmann, 2009). The conclusions made from the generalisations with regards to the 33 interviews are made for a specific context (Flick, 2014). A distinction must be made between internal and external generalisation. Internal generalisation refers to the generalizability of a conclusion within the observed 33 interviews whereas external

generalization focuses on the generalizability of a conclusion beyond the observed 33 interviews (Flick, 2014; Maxwell and Chmiel, 2014). Bazeley (2013) states that each individual interview acts as a replication of the research in a different setting. This provides the assurance that the obtained results (33 interviews in this instance) are broadly applicable. These multiple interviews allows for the identification of commonality across interviews as well as the testing and confirmation of findings in new interviews. Detailed analysis of the interviews highlights two important aspects. The first is that organisations in South Africa and the Netherlands are similar in their approaches to benefits management. In both countries it is evident that some organisations are applying benefits management in a mature way, but it is also true for both countries that there are some organisations that do not adhere to any of the best practices. Table 2 compares the benefits management process between the two countries. It is evident that both countries are failing in managing the promised benefits of the projects as well as linking the benefits back to the strategy and business objectives. There is not much to choose from the organisations within the two countries. It seems as if it is a general problem to manage benefits and link benefits back to the strategy and objectives. A concern is that Ward et al. (2007) highlighted top three priorities for improving benefits realisation i.e. (i) evaluation and review of benefits, (ii) identifying and structuring of benefits and (iii) benefits delivery planning. Almost a decade later, organisations are still battling with these identified priorities.

The comparison between organisations in both countries indicates that culture (organisational or country) does not play a role. The adherence to best practices is dependent on the maturity of the organisation itself. The second research objective of this article is to determine which processes organisations use to carry out benefits realisation. It is evident that organisations are not adhering to best practices and are not applying all of the processes. This has a direct impact on whether benefits are realised as well as the ultimate success of IS projects. The third research objective focused on whether organisations actually do track benefits. As with the second research objective, it is evident that the tracking of benefits are not always done and it is a direct result of the fact that all the processes of benefits management are not consistently applied by organisations.

The second aspect that arises from the analysis is that organisations are mature when it comes to benefits management. They are aware of the importance of the business case and the subsequent promised benefits. Organisations are also mature in deriving projects from the strategies. This is in accordance with literature such as the PMI's standards on portfolio and programme management. Benefits are tracked in the majority of cases. The results do suggest that there is a problem with linking the delivered benefits back to the strategies. Part of the problem might be as per Chih and Zwikael (2015) where organisations do not have the knowledge on how to formulate benefits. Organisations do not have a process in place to link the delivered benefits back to the promised benefits. Previous research by Ashurst (2011) as well as Coombs et al. (2013) mentioned that benefits are not necessary realised and the results of this research enforces these previous results. One of the reasons why benefits

are not realised is that the process that is followed is very much a linear one where it should be a closed-loop system. The encouraging fact is that the majority of the organisations do realise this issue and are in the process of creating this closed-loop system. These results addresses the first research objective and it is clear that organisations do make use of business cases to define benefits. What might be a concern is the quality of how the benefits are defined and described.

The second aspect has a direct implication on how project success is measured and reported on. On the one hand, organisations state that the delivery of business benefits is an important factor to measure success. But on the other hand, organisations do not have the process or criteria in place to measure whether the business benefits have been delivered. Measurement should include tangible as well as intangible benefits. It is important that promised benefits must be properly formulated at the beginning of the project. Chih and Zwikael (2015) mentioned seven criteria that can be used to formulate benefits.

It must also be noted that organisations attach benefits and benefits realisation to individual projects, irrespective of scope, cost or importance. This is in contradiction with current standards and methodologies, which state that benefits management falls in the domain of programme management. This phenomenon raises two issues. The first issue is why is benefits management is not included in any of the project management standards as these standards are written by academics and practitioners. Secondly, this omission might be the reason why benefits are not properly tracked as they are perceived to be part of a programme and not a project. The realisation of benefits and the value of IS projects can be substantially increased if the following two aspects are addressed by project management standards. Firstly, the acknowledgement that benefits management are part of project management and not just programme management. Benefits management could be a potential knowledge area. Secondly, the traditional project life cycle can be extended to include the delivery and realisation of benefits. Addressing these two aspects should see an emphasized focus on benefits management and the increase of successfully delivering IS projects.

Benefits management also has an impact on the governance of projects. Governance of projects focuses on whether the project managers are doing the right things and it is evident from the results that they are not focusing on the realisation of benefits. This links again with the notion that benefits management should be an integral part of the project management body of knowledge. Marnewick and Labuschagne (2011) found that IS governance and specifically IS project governance is a subset of corporate governance. Their results also highlight that IS project governance will increase if organisations implement the principles of COBIT. Naidoo and Palk (2011, p. 11696) confirm this by stating that COBIT provides “clear accountabilities for the realisation of benefits and that the IS/IT department adopt tactical plans to ensure that benefits are effectively.” Process EDM02 focuses specifically on the delivery of benefits. This is in line with King III (Institute of Directors Southern Africa, 2009) where the focus is IT alignment with the performance and sustainability objectives of the organisation. King III goes further and makes

Table 2
Comparison of benefits management process between Dutch and South African organisations.

Benefits Management Process	Netherlands	South Africa	Comparison
Set vision and objectives	● “We have a few, we have three, four, main objects and what we do is that every change we do in the organization, meaning the railway organization, we look if they contribute to one of the objectives and we measure if the project is effective on that objective”	● “[We] develop and launch new strategic themes or strategic drivers for the following year”	Organisations in both countries have processes in place to define the vision and derive business objectives from the vision.
Identify benefits & changes	● “I made a process which you have to follow for making business cases and one of the goals within the business cases is that you define which strategic target you support. What are your benefits, at what time, all those kinds of things.”	● “Having said that it’s used for approval in our organisation we will then say capital you said you were going to deliver x benefit out of this project when now that you have reduced your operation budget by the amount you said you would be saving we are now going to hold to the revenue target you said you were going to achieve with this project.”	Organisations in both countries link benefits to the business objectives and have a process in place to track the benefits after the completion of the project.
Define initiatives	● “I have this year ten projects last year ten projects it should be twenty the total number of projects for our business line are about thirty and they all have a business case.”	● “No, your assumption is incorrect” “So especially the bigger ticket items, the more longer term projects and tickets.”	The perception is that projects that are initiated in the Netherlands are done based on a business case. All of the respondents were confident in this regard. This is however not the case in South Africa. Some projects are initiated on a business case and this is dependent on the size of the project itself. Small projects are not scrutinised based on benefits.
Manage initiatives	● “Not at this moment, for future use, not at this moment. We don’t need to think too big. You eat an elephant by pieces.” “I don’t have, I think, the last two years, no, I didn’t have to make the decision, OK, let’s stop this project in progress because it contributes well. But I know in the past few years we really did stop one project for example, so.” “... it’s part of the, well its part of project management.”	● “I don’t think in my share of the bank that we have ever done that.” “We then put it back to what we had a project steering committee every quarter and that projects gets put forward there and we say this project is no longer viable, we then have to can the project.”	There is a split jury when it comes to the management of projects and its promised benefits. Once a project is initiated based on the business case, it is seldom cancelled even when it does not make sense to continue with the project as it will not deliver the promised benefits. However, there are some organisations ins both countries that do have gates in place to measure the performance of the project and then cancel the project if the promised benefits will not be delivered.
Manage performance	● “Yes sure some are easy to track so that we track them.” “And that is something that is ever hardly done well they expect the benefits to appear magically when the project is signed off and the people are released from that.”	● “We sit on a quarterly basis to get reports from finance that they write down especially what we budgeted for in terms of the income we said we were going to make out of this implementation realistically and that is reported to Exco.” “There’s no real process in place from where I’m sitting to go back to the owner and say look here, you know you are not realising your benefits, what are you doing about it”	Organisations in both countries are not necessarily tracking the benefits once the IS project is completed and the deliverable is in use. Some organisations in both countries are doing it whereas the ones that are not doing it, are aware of their shortcomings and are in the process to improve their internal benefits management processes.

the monitoring and evaluation of IT investments and subsequent benefits the responsibility of the board. The implication is that when organisations adhere to corporate and IT governance, the realisation and management of benefits will be evaluated and monitored from a board perspective.

The impact of IS projects on organisational success cannot be underestimated. The issue is that since benefits are not linked back to the business case and strategies, organisations are dependent on measuring IS projects on the triple constraint. IS projects’ success rates will surely improve when this process is in place. An increase in IS project success will lead to a positive impact on organisational success.

6. Conclusions

IS projects still fail at an alarming rate and organisations are questioning the value of IS. Huge amounts of money are allocated to IT departments to ensure the fulfilment of the organisation vision and strategies through IS and technology. Literature suggests that the measurement of success has matured into the measurement of the delivery of business benefits. That implies that IS projects must also focus on the delivery of business benefits.

Literature indicates that there are ample standards, methodologies and books available to organisations to manage the process of benefits management. Although it is suggested that

benefits management is a function of programme management, the results indicate that organisations require benefits from individual projects, irrespective of the size and cost of the project. Projects are initiated based on a business case and promise benefits in return for organisational resources. The idea is that every project must deliver benefits in excess of the resources utilised.

The synthesis of the results indicates that the major processes of benefits management are adhered to by organisations. This is irrespective of the type of organisation and the country where the organisation is based. One concern regarding the entire process is the closing of the benefits management loop. Benefits are not related back to the strategies and this leaves organisations without any insight into whether IS projects contribute to organisational success. Organisations do not know whether they have achieved the promised benefits and will therefore not be able to measure the success of their strategic intent.

This incapability to measure the realised benefits has an impact on the way that IS project success is reported on. Organisations have a false sense that the respective IS projects might be successful, but this cannot be proved when the delivered benefits are not measured correctly. A limitation in current literature is that there is no benchmark to determine how non-IS projects are realising benefits and whether benefits management is taking place. This leaves a void in that this research cannot be benchmarked against other IS or non-IS research.

The results suggest that the project management community must investigate the following areas: (i) how benefits management can become entrenched within project management; (ii) how well benefits are quantified within the business case and (iii) ensuring that benefits are properly managed and reported on. The results also highlight that most organisations understand the concept of benefits management. This is irrespective of the country and type of organisation. This capability can be attributed to the fact that organisations do know how to quantify benefits in the first instance and secondly, how to measure benefits once the project is completed.

Future research will continue focusing on whether the organisations interviewed have implemented a closed-loop system. This will provide insight into whether organisations really do achieve benefits from IS implementations. Future research will also focus on determining factors that can be used to quantify benefits at the beginning of a project and also on how to measure the benefits at the end and to relate them back to the strategies. Another focus area for research might be the success rates of IS projects within the Netherlands in the same fashion as the Chaos (United States of America) and Prosperus (South Africa) reports.

If benefits are realised in a more consistent way, then IS project success will improve as a direct result. This improvement in IS project success will have a direct impact on the fulfilment of strategies, which in turn will have a direct impact on the profitability and sustainability of the organisation. Without proper benefits realisation, IS will be viewed as a cost centre rather than a value creation and strategic implementation mechanism.

This raises the question whether individual stand-alone projects can deliver benefits and, if so, why benefits management

is not seen as part of project management. The analysis indicates that the Project Management Institute is the only professional body that excludes benefits management from the discipline of project management.

“It was the best of times [IS project managers are applying benefits management], it was the worst of times [benefits are not linked back to the business case]” ~ *A tale of two cities* by Charles Dickens ~.

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