Identifying Multiple Dimensions of a Business Case: A Systematic Literature Review

Kim Maes, Wim Van Grembergen and Steven De Haes
University of Antwerp, Antwerp Management School, Antwerp Belgium
kim.maes@ams.ac.be
wim.vangrembergen@uantwerpen.be
steven.dehaes@uantwerpen.be

Abstract: A business case is in many organisations perceived as a valuable instrument for the justification and evaluation of information technology (IT) investments. This attention from practice has been ascertained by academic scholars, resulting in a growing number of publications in both top academic and practitioner journals since 1999. However, much knowledge on business case research is scattered throughout literature and a clear definition of what actually constitutes a business case is still missing. Therefore, the present paper aims to understand and integrate the current state of research on business cases in an attempt to realise two objectives with clear contributions. First, we tackle the problem of scattered knowledge by organising fragmented knowledge into a newly developed Business Case Research Framework that clearly structures the study field into six dimensions. Second, we identify what constitutes a business case and provide a clear definition to resolve the misunderstanding among scholars. A systematic literature review methodology is performed in a selection of top academic and practitioner journals. Based on the literature findings, we observe that the application of business cases is useful in a broad range of investment contexts. We also find sufficient argumentation that using a business case continuously throughout an entire investment life cycle can increase the investment success rate, that a richer set of information (rather than only financial numbers) should be included in a business case and that stakeholder inclusion is important when developing and using business cases.

Keywords: Business Case, Business Case Process, IS/IT Investments, Framework Development, Systematic Literature Review, Concept Definition, Future Research

1. Introduction

Literature defines a business case as a formal document that summarises the costs, benefits and impact of an investment (Hsiao 2008; Krell and Matook 2009). It gathers the available useful information and defines possible alternative solutions to realise the investment scope (Frisch 2008; Kettinger et al. 1997). Per alternative, the necessary changes, associated costs and risks, and potential benefits should be defined in an objective way (Ashurst et al. 2008; Ward et al. 2008). Such a business case can help to evaluate an investment endeavour before significant resources are invested (Erat and Kavadias 2008; Kohli and Devaraj 2004). More and more, a business case is being used in contemporary organisations. In a survey by AMR Research, ASUG and SAP, organisations argued that in order to realise the potential value from such investments, a detailed business case is perceived as crucial and should therefore always be developed (Swanton and Draper 2010). Likewise, two-third of the European organisations surveyed by Ward et al. (2008, p2) are convinced that a business case is a very important instrument in order to gain value out of investments, and consequently 96 per cent of them were required “to produce some form of business case when justifying IT investments.”

Since the turn of the century, the interest in business cases is also growing among academic scholars. Figure 1 provides a year-by-year overview of the number of articles mentioning *business case,* which are published in a selection of top academic and practitioner journals. Since 1999, a noticeable increase can be ascertained in both journal types. Some of these publications have *business case* within the scope of their research or address considerable attention to the subject (e.g. Franken et al. 2009; Krell and Matook 2009; Ward et al. 2008). Most mention however a limited aspect of a business case in the course of their article without further elaboration, such as the relevance of developing a business case, the information one needs to include in a business case or who is involved in the development (Hsiao 2008; Lin and Pervan 2003). Hence, much knowledge on business case research is scattered throughout literature. Only a handful of scholars provide some definition on what constitutes a business case, but a clear definition is still missing. Post (1992) was among the first calling for additional research on business cases in order to develop a deeper understanding of their impact. Yet, so far few have answered this call to focus on business cases within their research. The lack of a clear definition and the fragmentation of knowledge may stimulate misunderstanding and consequently discourage further research.

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The present paper addresses the call for additional research, as business cases are an important instrument in value creation through (IT) investments. As a result, we want to understand, accumulate and integrate the current state of research on business cases. This fragmented knowledge is organised into a newly developed Business Case Research Framework that clearly structures the study field. An improved definition on what constitutes a business case is proposed. Interesting observations suggesting promising future research opportunities are shared as well. By doing so, the systematic literature review contributes in two ways (Webster and Watson 2002). First, it shows that little research has substantially addressed the topic of business cases so far. Second, it provides a new theoretical understanding on a research topic in which the current knowledge is dispersed over numerous academic and practitioner publications.

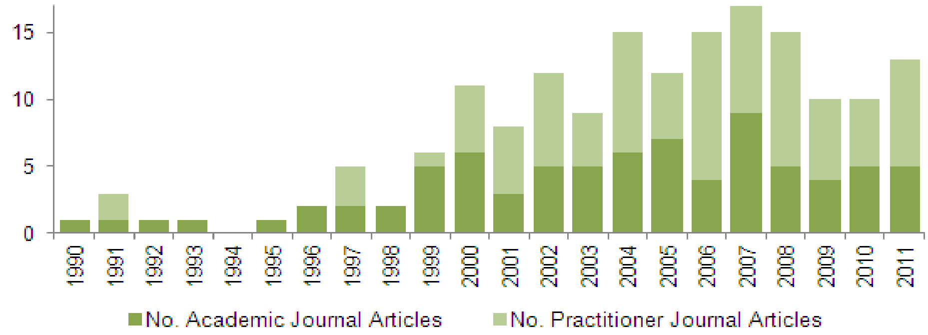

Figure 1: Distribution of articles by year over the past twenty-one years

2. Methodology

A comprehensive description of the literature review process is desirable according to Vom Brocke et al. (2009). The objective of the systematic literature review is to understand and accumulate the current state of research on business cases with the aim to organise the fragmented knowledge into a newly developed framework. It focuses on publications dealing with business case as a management practice only in passing or in a considerable manner. An exhaustive search is performed in top academic and practitioner journals which have been selected based on journal ranking publications (Vom Brocke et al. 2009; Mylonopoulos and Theoharakis 2001) and the ISI web of knowledge 5-year impact factor in the business and finance category (only for finance journal selection). The search is executed in multiple e-databases (EBSCO, JSTOR, ScienceDirect, Swetwise, WILEY) and on journal websites with "business case" in full text and a time frame between 1990 and 2011. Unfortunately, for some journals the time frame was not entirely available. Yielding 495 initial results, each paper was thoroughly analysed to understand the context in which the term 'business case' is being employed. All irrelevant papers only mentioning 'business case' in the reference list, journal advertising or as in "proving the business case of..." have been omitted. This step has led to a final list of 169 relevant papers including one paper (Sarkis and Liles 1995) that has been added through backward searching. All relevant publications were then analysed through qualitative content analysis to structure and interpret individual text fragments (Mingers 2003). Based on these findings, we identified six dimensions that characterise an aspect of the business case concept (Bryman 2001). Each dimension is a way to perceive the business case from a certain angle: its application area, goals, content, stakeholders, as a process or the risk factors if a business case is not employed in a adequate manner. Together, these dimensions constitute the Business Case Research Framework displayed in Figure 2.

3. Dimensions defining a holistic Business Case Research Framework

The Business Case Research Framework reflects the versatility of the business case concept as a research topic. To accumulate and structure the study field, the content of each dimension is discussed hereafter. In line with Elo and Kyngäs (2008), sub dimensions were created to structure text fragments within each dimension. Alternatively, some of them have been directly linked to three stages of an investment life cycle: before, during and after implementation Hitt et al. (2002). *During implementation* begins when the investment decision has been made and the organisation starts to invest resources in the investment, and ends when the investment has officially been launched. The official launch implicates that all planned applications have been implemented, all anticipated organisational changes have been produced and the organisation can now start using the product of the investment. Consequently, all process phases with regard to feasibility that precede the investment approval belong to the *before implementation* phase and the post-implementation review is considered to be part of the *after implementation* phase.

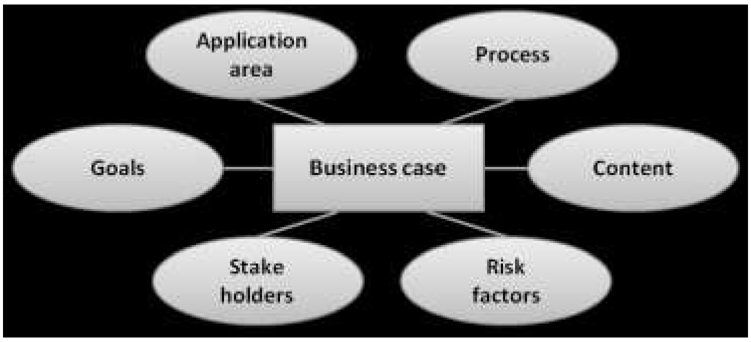

Figure 2: Business Case Research Framework

3.1 Business case application area

The literature findings show a wide variety of investments in which a business case can be employed. This insight has led to a first business case dimension titled the business case application area, defined as the specific type of investment for which the development of a business case can be beneficial to achieve one or more of its goals. As portrayed in **Error! Reference source not found.**, this dimension is further divided into two major sub dimensions. First, a business case is developed for investments with a technological orientation incorporating both software applications (e.g. e-business, data warehousing system) and infrastructure (e.g. broadband development, RFID) (Weill and Vitale 2002). Second, a diverse set of investments with an organisational focus can benefit from a business case as well (Balaji et al. 2011). These investments can range from a strategic alliance to corporate social responsibility and gender diversity. For instance, the latter provides an argumentation to get more women into leadership roles (Wellington et al. 2003).

Table 1: Business case application area

	Business case application area	
Technological orientation	Broadband development	Material requirements planning
	Data warehousing system	Offshore sourcing
	E-business	Point-of-sale debit services
	E-government	RFID
	E-health records	Software product line adoption
	Global data synchronization network	Software repositories
	Group decision support systems	Software reuse
Organisational orientation	Business processes	IT and service-oriented architecture
	Business rules	New product development
	Collaborative innovation	Project management office
	Corporate social responsibility	Quality management
	Effective global business teams	Strategic alliances
	Executing strategic change	Strategic vision for IT
	Gender diversity	Supply chain integration
	Global shared service centres	

3.2 Business case content

A business case document is considered to be a structured overview of specific elements that characterise an investment, such as objectives, costs and benefits (Hsiao 2008). During the literature review, multiple of these elements have been identified in various publications. To integrate this fragmented representation of what should be included in a business case, we have clustered all elements into one business case dimension that is defined as the business case content. The content is further structured through sub dimensions clarifying content elements that are related to each other as presented in **Error! Reference source not found.**.

Most scholars agree that a business case must include information on the investment's vision and objectives, the changes required to realise the scope, the anticipated benefits and costs, and associated risks (Krell and Matook 2009; Ward and Daniel 2006). Others also include information that might be more related to project management. For instance, an investment planning or roadmap specifies when the required changes should be implemented and which actions should be undertaken in parallel (LeFave et al. 2008; Mirvis and Googins 2006). Franken et al. (2009) and Reimus (1997) argue that the assignment of responsibilities and accountabilities is essential in a business case in order to increase individuals their commitment. Examples include a business sponsor (Weill and Vitale 2002), a change owner and a benefit owner (Peppard et al. 2007; Ward et al. 2008). According to Luna-Reyes et al. (2005), a business case may incorporate best practices on how to approach something, such as business processes, technology or other organisational aspects.

Over the years new insights have been put forward in this dimension. Gregor et al. (2006) and McAfee (2009) identified the need to determine intangible or qualitative benefits next to financial and quantitative benefits. DellaVechia et al. (2007) found that a simple enumeration of the investment objectives and which tangible and intangible benefits can be expected does not suffice anymore.

Table 2: Business case content

	Business case content	
Investment description	Project planning and roadmaps (tables, figures) Project description	Drivers for change
Investment objectives	Explicit project objectives Performance goals Business goals	Align and link objectives of: - business and IS - investment and organisation
Investment requirements	Requirements Resource requirements Customer needs Organisational needs	Technical needs Market needs Strategic requirements
Investment impact	Benefits and costs (business and technological) over consecutive years: - tangible and intangible - monetary and non-monetary - quantifiable, measurable and observable - certain and uncertain - direct and indirect - realistic Clear benefit definition	Cost-benefit analysis Financial investment justification Financial plan / benefits plan Feasibility study Organisational changes Link investment metrics to business performance Business variables and measures are targeted against baselines prior to investing
Investment risks	Investment risk factors (technical and business-change risks)	Risk management plan
Investment assumptions, considerations and scenarios	Realistic assumptions Organisational, strategic, operational, technological issues Time / organisational constraints Qualitative considerations	Intervening variables Best practices research Investment options Realistic technology scenarios
Investment governance	Roles and responsibilities Accountability	Compliance

3.3 Business case process

While most scholars approach a business case as a document, some have built a process to guide its development. Sarkis and Liles (1995) are first to develop a high-level process that includes five interrelated steps, which are closely related to business case development: identify system impact, identify transition impact, estimate costs and benefits, perform decision analysis, and audit decision. Ward et al. (2008) extended this seminal work. They have designed a process for the development of a business case consisting of six steps with multiple individual tasks. The business case development process is executed through the following six steps. In the first step, one identifies issues and challenges for the organisation in its internal and external environment (i.e. business drivers), and what the investment will try to achieve in order to tackle one or more of the business drivers (i.e. investment objectives). Second, anticipated benefits should be identified in line with the objectives, with clearly defined benefit measures and owners. In this step, one identifies benefit owners who are responsible to provide a correct value for each benefit, to ensure the development of a benefits realisation plan and to ultimately get the benefits realised. The third step requires one to develop a framework in which benefits and changes are categorised and linked to each other. Step four specifies that organisational changes that will enable the anticipated benefits, should be identified and added to the framework from step three. Change owners are assigned to ensure their commitment that each identified change will also be implemented. In the fifth step, one needs to determine an explicit value for each benefit based on valid evidence. In step six, all costs that will result from the investment should be identified as well as the risks that might jeopardise a successful outcome of the investment.

In addition, various scholars mention the use of a business case casually during some stage of an investment life cycle. De Haes et al. (2011) stipulate that the development of a detailed business case can be preceded by a high-level business case in which a first rough outline of the investment purpose and implications is delineated. According to Franken et al. (2009), a business case can assist in performance monitoring during investment implementation. Once the investment has been finalised, the business case helps to independently evaluate the investment outcome during the post-implementation review (Jeffrey and Leliveld 2004; Shang and Seddon 2002). We identified various tasks in literature with regard to a business case and linked them with the investment stages as presented in **Error! Reference source not found.**. Executing these practices during the three consecutive phases of the investment life cycle, creates interesting insights to develop an initial business case process that runs in parallel.

Table 3: Business case process tasks

	Business case tasks
BEFORE implementation	Understand investment relevance
	Split business case: - into high-level and detailed business cases - per sub investment
	Assess investment: - feasibility (organisational, financial, technical) - viability (economic, marketability, strategic)
	Identify, structure and determine explicit metrics and values of: - benefits, costs and risks (if successful and in case of failure) - resource requirements (financial, timing, staff) - user requirements - critical success factors
	Link benefits and changes explicitly
	Develop a: - work plan, action plan, roadmaps - benefits-delivery plan
	Develop and validate: - proof-of-concept, prototype
	Perform and determine: - what-if analyses and failure analysis - preferred solutions - investment alternatives
	Assign responsibilities and accountabilities: - investment team - investment sponsor - benefit owners in relation to investment objectives and benefits
	Identify and assure: - stakeholder opinion (via workshop, …) - stakeholder ability to achieve investment change - stakeholder confirmation of business case - stakeholder commitment (e.g. top management)
	Evaluate the business case
	Communicate business case (stress investment vision, objectives, stakeholder commitment)
	Approve the business case or stop the investment
DURING implementation	Audit investment decision
	Allocate investment resources
	Establish evaluation team
	Monitor, evaluate and report on: - investment progress, budget and performance - investment changes
	Review and update business case based on: - investment progress and performance - new insights from stakeholders - organisational, technical and, market changes
	Identify and assure: - stakeholder opinion (via workshop, …)

	- stakeholder ability to achieve investment change - stakeholder confirmation of business case - stakeholder commitment (e.g. top management)
	In case of investment failure, reassess business case, assumptions and feasibility
AFTER implementation	Evaluate investment performance against stated investment objectives, industry benchmarks or an ideal performance level
	Understand failure reasons
	Acquire lessons learned
	Audit investment performance
	Determine further investment opportunities and business cases
	Reward in relation to performance

3.4 Business case goals

The development and use of business cases can help to achieve multiple objectives. For instance, it facilitates the collection of basic information and clear responsibility assignment (Smith et al. 2010). It can also be utilised as a communication instrument to convince people and to get top management commitment (Peppard and Ward 2005; Davenport et al. 2001). Investments can be compared and prioritised through a business case to identify high-priority and quick winning investments (LeFave et al. 2008; Smith et al. 2010) It can be an objective instrument to evaluate the investment outcome and to demonstrate its impact (Raymond et al. 1995; Ward et al. 2008). During the literature analysis, this wide variety of objectives has been integrated into a business case goals dimension, which is defined as any particular reason why a business case should be developed and which tangible and intangible contributions it can bring to the organisation. The business case goals are organised through the investment stages and presented in **Error! Reference source not found.**.

Table 4: Business case goals

	Business case goals	
BEFORE implementation	to ensure an investment owner is assigned to ensure basic investment information is collected to identify how IT and business changes will deliver the identified benefits to increase the investment success rate to link benefits to organisational changes and to investment objectives to convince people to ensure involvement, support and get commitment to increase motivation and stimulate action to obtain investment resources (funding, staff, time…)	to improve the relationship and develop trust to communicate an investment's concept, status and results among its stakeholders to transfer knowledge to compare investments to balance risks between investments to filter out unattractive investment ideas to identify "low-hanging fruits" to identify high-priority investments to prioritise investments to get investment approval to make well-founded investment decisions to successfully launch an investment
DURING implementation	to obtain additional investment resources (funding, staff, time…) to remove unattractive investments	to disallow additional resources for an unattractive investment
AFTER implementation	to execute a post evaluation to objectively evaluate investment outcome	to demonstrate an investment's impact

3.5 Business case stakeholders

Literature findings indicate that a diversity of people are involved with a business case. Some of these people are responsible for its development or to give approval and provide funding to the investment while others are only consulted (Avison et al. 1999; Smith and McKeen 2008). This multitude of people has been categorised into a dimension focusing on business case stakeholders, which is defined as those people that can affect or are affected by the business case and have a stake in one or more business case tasks and in the achievement of the business case goals. Most stakeholders can be found in business and not in IT. Business people are responsible for the development and communication of the business case through their business unit executives or the investment sponsor (Beatty and Williams 2006; Teubner 2007) whether or not assisted by a business architect (Fonstad and Robertson 2006). Ross (2003) states that this responsibility should be shared with IT. Stakeholders from business and IT are put together to assess investment feasibility and its potential to add value to the organisation, as this requires in-depth knowledge on social, economic and technological implications (Charette 2006). A devil's advocate is added to the evaluation team to objectively critique the business case and depersonalise the discussion (Frisch 2008). Literature demonstrates that the business case is primarily a business responsibility. Although IT people are explicitly involved before implementation as portrayed in **Error! Reference source not found.**, they seem to be no longer involved after the investment decision has been made. Literature only mentions the finance organisation and post-implementation review team in these phases.

Table 5: Business case stakeholders

	Business case stakeholders	
BEFORE implementation	Board of directors Executive committee CEO / CFO / CPO / CIO Strategy management group Senior management Business executives / managers together with IT managers and business architects Business unit manager Business / investment sponsor Business planning board Portfolio management team Project investment department Capital IT project management board Project centre of excellence Project manager	Finance organisation / staff Capital control group IT steering committee IT management team Business demand office on IT side Internal/external end users from business and IT Division information managers Designers Operation managers Uninvolved project leaders and auditors Human resources/organisation department A devil's advocate
DURING implementation	Finance organisation	
AFTER implementation	Post-implementation review team	Finance organisation

3.6 Business case risk factors

Based on the previous five business case dimensions, an organisation should be able to understand how to build a sound business case (content, process, goals and stakeholders) and in which investment types such a business case can be applied. However, if an organisation does not adequately employ these guidelines impending unidentified risks may negatively impact the investment outcome. Therefore, the literature analysis has led to the identification of a last dimension focusing on the risk factors in relation to the business case and which potential results this might deliver, as presented in Table 6. Some risk factors are linked to investment stages such as lack of financial knowledge among IT staff, growing complexity due to inter-organisational investments and weak partnership between business and IT (Jeffrey and Leliveld 2004). Other risk factors give insight into important aspects that are worth attention during the business case process. For instance, organisational culture, personal characteristics of a manager or top management turnover can negatively impact the business case quality and the resource availability during the investment (Earl and Feeny 2000).

Table 6: Business case risk factors and impact

	Business case risk factors	**Potential impact**
BEFORE implementation	Difficulties to formulate and position a business case because: - IT staff lack working knowledge of financial concepts - a weak partnership exists between business and IT - it is hard to calculate strategic and tactical benefits - inter-organisational investments increase complexity - investment is perceived as IT and not as business	- not developing a business case - developing a weak business case - an ad hoc approach to execute investments - benefits cannot be managed effectively - systems development for the sake of technology - progress is difficult to measure - evangelists set their own targets

	- stakeholders are not included from the beginning	- investment approved by elbow grease (based on effort to convince people instead of on quality)
	Business case not presented: - in appropriate language - with realistic, neutral, complete and valid arguments - with investment alternatives or options - with strong leadership to convince decision-makers - with clear accountabilities and according rewards	- stakeholders do not understand investment objectives - risks are described to persuade rather than to inform - creating a narrow yes-or-no framework - too much focus on financial arguments - an 'IT-doesn't-matter' management attitude
	The business case evaluation and approval: - is based on technical instead of business criteria - focus on short term benefits instead of long term needs - is not executed thoroughly and quickly - target the business case presenter and not the investment	- overspend of time and money - under-delivery of benefits - slow down or annulment of an investment - less initiative will be taken to build and present a business case
DURING and AFTER implementation	A business case is not: - not further employed after its development - regularly reviewed	- investment not adjusted to market changes and needs - lessons learned cannot be collected and understood
Environmental influences to business case	A business case can be influenced by: - organisational culture - decision-makers - personal characteristics (e.g. CIO role / influence behaviour) - top management turnover	- inconsistent business case quality - changing sponsorship - changing resource availability
Business case limitations	A business case's project framing diminishes flexibility Investment justification based only on a business case	- enabling project escalation - additional approaches should be employed including executive level allocation and annual CIO allocation

4. Discussion and future research

Based on the systematic literature review, we observe that literature focusing specifically on business cases is scarce within academic literature. As a result, a holistic definition on what constitutes a business case is difficult to find. Benaroch et al. (2006, p835) defines it as “a comprehensive document that includes the project description, resources required, benefits and financial plans, and a risk management plan.” Hsiao (2008) perceives a business case as a structured overview of benefits and costs associated with an investment. According to Ward and Daniel (2006), a business case is a document that supports the decision-making to make the investment or not, and therefore needs to include the required changes, their anticipated benefits and costs together with the associated risks. Krell and Matook (2009, p37) state that a business case “is a formal summary of benefits from an IS investment (…) and determines necessary actions to put anticipated benefits into practice.” The document is often presented as a combination of figures, tables and texts to reduce complexity. A recent definition was provided by Nielsen and Persson (2012), who define a business case as “an artefact in the form of a document specifying the main rationale behind the expected value and cost of an IT investment for the adopting organisation.” In practitioner literature, a business case is defined as “documentation of the rationale for making a business investment, used to support a business decision on whether to proceed or not with the investment” (ITGI 2008, p113). PRINCE2 argues that a business case describes “the justification for the project based on estimated costs, benefits and risks” (Office of Government Commerce 2009, p. 255).

Based on both academic and practitioner literature, there seems to be a consensus that a business case is a formal document that provides a structured overview of information about a potential investment. This information is in most cases limited to the investment benefits, costs and risks together with the information that is necessary to define them. For instance, the project description and scope is defined to specify what will be included in the investment and what not (Abraham and Junglas 2011; De Haes et al. 2011). This information can be further substantiated into a list of technology requirements and business changes that are required to be implemented in order to achieve the scope and the anticipated benefits. These aspects are equally important to determine the investment costs (Ward and Daniel 2006). Based on our literature findings, we observe that information like responsibilities and accountabilities, best practices and the investment planning is also included in a business case. LeFave et al. (2008) and Mirvis and Googins (2006) integrate an investment planning in the business case to specify when required changes should be implemented. Franken et al. (2009) and Reimus (1997) argue that responsibilities and accountabilities should be assigned in the business case in order to increase the commitment of individuals.

All useful information is bundled in the business case and relevant calculations are described to provide a rationale and justification for the potential investment. The overall goal of a business case is consistently described as to enable business decisions to make, let proceed or stop the investment (ITGI 2008). In the words of Post (1992), "a business case can help management to make well-founded technology investment decisions". As a result, we propose the following definition of a business case:

A business case is a formal investment document with a structured overview of relevant information that provides a rationale and justification of an investment with the intent to enable well-founded investment decision-making.

The systematic literature review reveals multiple observations on upcoming research evolutions and interests in business case research. In this discussion we will focus on the most interesting suggesting promising opportunities for future research.

4.1 Observation 1: Business cases are applicable in variety of investments, organisations and industries

The business case application area is wide and diverse indicating that its use is not only beneficial in the implementation of IT investments but also in organisational investments or social changes throughout the organisation. Moreover, business cases can be used in different types of industries such as the insurance industry or the fashion industry (Nelson et al. 2010), as well as in different types of organisations ranging from SMEs to multinationals and governments (Ballantine et al. 1998). However, the literature does not describe whether a business case should be developed or managed differently in relation to the type of investment, industry or organisation. Hence, it could be interesting to investigate whether the implementation of other business case dimensions should be adjusted accordingly.

4.2 Observation 2: A business case is more than financial numbers

The content of a business case document is no longer limited to financial numbers. Today, both quantitative and qualitative benefits should be identified and defined. Smithson and Hirschheim (1998) argue that an organisation taking only quantifiable benefits into account will have no strategic alignment between investment and organisational objectives whereas business cases built with only monetary impacts are questionable (Urbach et al. 2010). Ward et al. (2008) found that qualitative benefits provide a more complete image of the potential business value of an investment. These benefits are frequently omitted due to their political sensitivity, difficulties in handling them and their potential to hinder in the approval procedures (Farbey et al. 1999). Furthermore, researchers call (i) for a link between the investment objectives and organisational goals (Bruch and Ghoshal 2002), and (ii) for a link between the impact of anticipated changes and their respective benefits (Avison et al. 1999)). Ward et al. (2008) address both issues. They argue that business case development should start with the identification of the business drivers for the organisation. "The business case then clearly states what the proposed investment seeks to achieve for the organization—the *investment objectives*—in a way that shows it can clearly address some or all of the business drivers" (Ward et al. 2008, p3). Their business case development process prescribes in addition that "benefits are explicitly linked to both the IT and the business changes that are required to deliver them" (Ward et al. 2008, p3). Only these linkages can consider a clear understanding of the investment impact during evaluation and decision-making. As many of these new insights have not yet been integrated and explicitly linked in the business case literature, we ask for future research to develop an innovative business case template.

5. Observation 3: It is not just about developing a business case

Many scholars present a business case as a useful and valuable instrument at the beginning of an investment to get a thorough understanding of the investment application (Balaji et al. 2011; Davenport et al. 2001). This has been perfectly captured by the multi-step approach for business case development by Ward et al. (2008). Nevertheless, the steps to develop a business case do not equal the business case process as a whole. A business case can be purposefully employed in case of major changes affecting the investment or project escalation, which might require a review of the business case to be in line with the prevailing reality or to justify the continuation of the investment (Brown and Lockett 2004; Flynn et al. 2009; Iacovou and Dexter 2004). After implementation, a business case can help to evaluate the investment outcome, and to understand failure reasons and lessons learned for future business case developments and investment implementations (Fonstad and Robertson 2006)). Until today, these additional tasks surpassing business case development have not been integrated. As Al-Mudimigh et al. (2001) argue that a business case is a useful and effective instrument throughout all investment stages, such integration should lead to a full business case process in parallel with the investment life cycle.

We identified that a continuous usage seems to facilitate eventually a higher success rate of the investment (Altinkemer et al. 2011). It is seen as a critical instrument during investment implementation, and increases the use and adoption of the information system as part of an investment (Gattiker and Goodhue 2005; Law and Ngai 2007). (Curley 2006) states that a disciplined business case approach is fundamental to benefits realisation while Al-Mudimigh et al. (2001) and Krell and Matook (2009) found that frequently developing and using a business case is one of the major success factors for an investment and a source of a competitive advantage.

5.1 Observation 4: Business case knowledge is scarce and limited to case development

Current knowledge on business cases is largely concentrated on the development of a business case (Ward et al. 2008), thus before the investment decision is made. This applies to the business case process tasks, its goals, the stakeholders and the identified risk factors. For instance, only six goals and four stakeholders are identified during and after the investment implementation. Hence, we can conclude that research on these dimensions of a business case during and after the implementation of an investment is still in its infancy. Although many scholars mention its usefulness during these investment stages (e.g. Al-Mudimigh et al. 2001; Franken et al. 2009), none have specifically drawn attention to this during their research. We argue that future research is necessary to build new theoretical knowledge that can further enhance our understanding in order to help practitioners willing to apply this knowledge. Future research can focus for instance on understanding how a business case can be used throughout the entire investment life cycle, i.e. a process approach. Such a business case approach can be initiated through a 'business case process' that will include supplementary tasks, which may include but are not limited to the evaluation and monitoring of the investment progress and risks, and the post-implementation review of the investment success (Franken et al. 2009; Jeffrey and Leliveld 2004; Luftman and McLean 2004).

5.2 Observation 5: Finance scholars have yet to discover business case research

Next to senior management, people of the finance organisation are closely involved in many tasks of the business case process. For instance, they execute the financial analysis, provide business case templates and train people on how to employ these, fund the investment idea, monitor the investment budget and business case, and facilitate the post-implementation review (Smith et al. 2010; Westerman and Curley 2008). Consequently, one could argue that the study field of business cases might be of great interest to finance scholars yet no relevant article mentioning 'business case' has been found in finance journals. This might imply that business case research is still not on the radar of finance scholars publishing in top finance journals, so we would like to invite them to enrich this emerging study field.

5.3 Observation 6: Stakeholders are an integral part of business case usage

Various publications identify multiple stakeholders that can be involved with a business case (e.g. De Haes et al. 2011; Fonstad and Robertson 2006)), yet none provides a complete list of who should really be involved. Hence, we are interested to know how many stakeholders should be involved in the business case process to achieve an optimal result. Including too many stakeholders will become difficult to organise and the new information provided by each additional stakeholder diminishes gradually due to information saturation. Future research could also investigate the implications of positioning particular stakeholder responsibilities in another hierarchical level or business area. For instance, with regard to a customer relationship management investment, what might be the impact of changing the business unit executive by the marketing manager as an investment sponsor (i.e. changing seniority for relevant domain expertise)?

6. Conclusion

Although the interest in business case research is growing, the study field is still in its infancy: business case knowledge is scattered and a clear definition is missing. Therefore, the present paper integrated the current state of research on business cases into a newly developed Business Case Research Framework and developed a new definition of the business case concept. We have also found multiple interesting observations based on literature findings that suggest promising opportunities for future research. The applicability of a business case is broader than just IT investments. Researchers tend to shift from document to process thinking on business cases as it may contribute to the investment success. They urge to enrich the content of a business case with qualitative information in addition to the more financially oriented arguments that are mainly included nowadays. Stakeholders are key in business case usage as they enrich the amount of information with their different view points, yet further research could investigate their role and impact from new angles. In addition, the knowledge base on business cases is scarce especially in the finance field and in their use beyond the development phase.

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