

On Leveraging Business Processes to deal with Critical Success Factors

Discussion Paper

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Abstract: Envisioning business process management (BPM) as a management discipline bridging business and IT together brings certain advantages to enterprises. However, most research on BPM tackles process modelling by analyzing operational aspects and modelling corresponding workflows. Although additional aspects might be regarded, e.g. organizational and decisional aspects, current research on BPM only have limited support for enterprise strategy aspects. This paper researches methods and techniques for capturing and modelling critical success factors (CSFs) for enterprises, and making them manageable assets in business processes. We propose the use of the i*-framework for modelling CSFs and propose a method for enriching existing BPM notations with CSF models. The goal of this work is to bridge the gap between CSFs that enhance an enterprise's competitiveness and the operational business processes that realize an enterprise's added value.

1 eCommerce: An important Market

Internet represents the sales channel with the highest growth dynamics for online-shopping. With an income volume of about 19.3 Billion EUR in Germany (2008), high growth rates and increasingly new-coming enterprises, online shopping withstands the current economic crisis. The number of clients buying goods online went over the 30 Mio. Mark for the first time in Germany last year [Bund08]. This attractive context and the resulting situation for offline-shopping will attract more companies which had no online presence up until now. It will motivate these new-coming companies to enter this market and push already involved companies to further extend their presence online. This will make companies integrate new sales methods or extend their existing ones and will require new or adapted business strategies, so that concerned business goals and the design of new, respectively the further adaptation of existing business processes (BPs).

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Critical success factors (CSFs) are delivering an important contribution by allowing companies to avoid errors, identify opportunities, eliminates weaknesses and risks and to emphasize their strengths. Recognizing and dealing with CSFs constitutes a competitive advantage in comparison to companies not explicitly knowing about their CSFs, respectively do take no advantage out of this knowledge. Modelling CSFs in the context of strategic planning and linking CSFs with operational goals is thus a considerably important aspect for enterprises, which we will tackle in this paper in the broader context of business process management (BPM) as a paradigm for aligning business and IT operational layers of enterprises. This paper will first provide in Section 2 a thorough explanation for the need of a systematic and structured management of CSFs in enterprises, especially for process-centered ones (i.e. operational activities are all realized through BPs). This section will be followed by some background for this work about strategic planning and CSFs. Then, Section 4 will develop our approach, whereas Section 5 will provide a quick introduction to the languages and architectures we propose to build our work on. We will here particularly concentrate on a specific goal-oriented requirement engineering standard and a widespread BPM Framework. In Section 6 we will showcase our approach in an example from literature. A Discussion of the weaknesses and lacks of the presented approach is given in Section 7 and finally Section 8 provides an overview of related work and concluding remarks.

2 Motivation

In dynamic, technological and rapid changing markets like eCommerce companies depends on effective control and design by executive management. At this level (which we call *management level*) the focus has to be set to the whole organizational perspective, which is distinguished by [Wimm+09] in the dimensions Presence, Future, Markets, Environment, Resources, Organization and People. These set of dimensions clarify the room of maneuver of the management [Wimm+09]. Enterprise strategy and strategic programs as well as their implementation make specific contributions for the design and the control of a company. The questions related to the competitiveness and efficiency are solved by strategy so people can be concerned with details [Wimm+09]. Strategy has a critical influence on a company's success [Kran07]. To answer the big questions and building or changing the structure of a company it is necessary to provide a superordinated view with a reduction of complexity [Wimm+09].

An essential challenge for the management within the strategic process is the identification of a "company's-success-increasing-strategy" considering to the internal and external conditions of the company [Kran07]. Narrow-toothed with a successful strategy implementation is the existence and the realization of CSFs provided by external and internal conditions. In a business process-oriented company, a global vision is identified that guides all actions taken by a company's operational resources. Companies seek to reach their vision by putting in place strategies (and by extension business goals and tactics used to implement strategies). Strategies control the way the operational business processes actually conduct a company's activities and create value. Although BPM literature displays an important amount of work done about monitoring and analyzing business processes, the same cannot be said about CSFs or strategies.

In summary, strategies are defined to guide an enterprise towards reaching its goals, while business processes are defined in order to realize operations compatible with the strategies defined. The advantage of disposing of tools for modelling, monitoring and analyzing is showcased by figure 1.

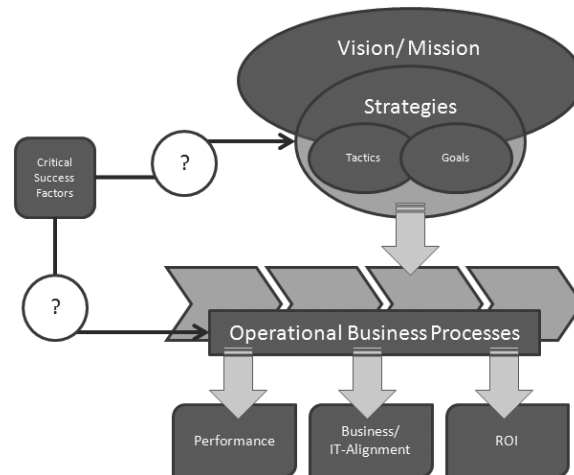


Figure 1: Linking CSF to strategy and processes [own illustration]

Performance enhancement initiatives: where the performance of a company's processes is modeled, and quantified based on metrics (e.g. Key performance Indicators - KPIs) defined for its business processes. Return on investment (ROI) calculations: each time a company invests in a new process or a resource, it needs to make sure this investment makes sense and will bring some advantage to the company. Business/IT Alignment initiatives: seek to structure and configure business processes in a way that will align a company's activities with its actual strategies.

The knowledge of success factors (SFs) provides a complexity-decreasing information framework and contributes effectiveness and efficiency for the strategic planning. It is also allowing rational and transparent decisions during the determination of the strategy. This framework can be an important orientation for actions during strategic planning as well as operative implementation (using BPs). Consequently the knowledge of CSF is a valuable orientation for the strategic planning [Böin01]. Another aspect of the problem is that CSFs are only available in the minds of company executives and at best in paper form. Hence, CSFs are decoupled from business strategies and processes. The question that is raised is *how do CSFs influence business strategies and how to assess to which degree strategies take CSFs into account* (top interrogation point on Fig. 1)? In analogy, the same question can be raised about operational BPs and their interaction with CSFs (bottom interrogation point on Fig. 1). Based on this knowledge, the challenge faced by companies is to *get hold of the (CSFs)* as a mean to enhance their ability to control value-creating activities and ensure the company behaves the best it can. This is why it is necessary to provide business people involved in the management level with techniques for *capturing, measuring, and evaluating CSFs*.

This will allow deciders at the management level to critically *study how far do strategies actually enhance a company's performance* while helping it stay aligned on its vision. Our goal is to bridge the gap between CSFs that enhance an enterprise's competitiveness and the operational business processes (Fig. 1).

3 About CSFs and Strategic Planning

In this chapter we define and illustrate the most important issues based on an extensive literature research. In detail the issues are strategy, strategic planning and success factors (SFs). In Literature there's a big scope of researches and surveys on CSF [Böin01]. For the sake of clarity we're using only one general CSF in this paper, the customer proximity (see chapter 6.2).

3.1 Strategy & Strategic Planning:

Strategy is "*the determination of the basic long-term goals and the objectives of an enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals*" [Chan62]. Strategy helps to realize the vision of a company. With a focus to the vision long-termed goals will be agreed. Strategy is future-oriented and is also used as a connector between the vision and the operational daily business. Strategy identifies and evaluates actual and future sources of competitive advantages as well as potential for success and provides a detailed action-plan ready for realization [Kran07]. Strategic planning has the goal to ensure the sustainable company's success via adequate programs and best possible usage of available resources. The competence-profile of a company needs a consequent focus on the requirements of the whole organizational perspective [Fran02]. Intent and purpose of strategic management is a stable long-term company's success [Ring04]. In a more general way it covers the attainment of personal goals, the creation of values and jobs as well as the achievement of financial profits [Holz01].

The company-world is always located in an area of conflict between external and internal cause-and-effect-parameters. External influence parameters can be actions of competitors respectively suppliers, new technologies, changing common standards of society, laws or decrees by state or local authority as well as ecological influences. Employees, Executives or Shareholder are possible internal factors of influence. The definition of the external focus on market and the internal focus on resources are ideally considered to the external and internal CSFs. Attention has to be paid to the operationalization and controllability of success potentials [Ring04]. The strategic management-process, we're using as an example (see figure 2), can be different from company to company. Generally strategies and strategic goals are created from an overall strategy which follows the vision/ mission of a company. Particularly at this, strategic areas of business will be clearly distinguished from each other. Product-Market-Combinations, Company-Policy and form of the organization will be fixed and (additional) resources are allocated.

Based on this input sustainable competitive advantages, success potential and CSF will be developed and documented. In this step the company as well as its environment is coming under a fundamental analysis [Ring04]. The results are strategic models and in this connection tools like portfolio-analysis, competitor analysis (5-Forces²), PEST-Analysis, etc. are applied to build strategic models. Afterwards strategic options and possible alternatives are verbalized and evaluated to set up a level of strategic programs. The step of implementation contains the implementation and enforcement of strategic programs [Raps04]. This occurs via business process analysis and actions within business processes, like implementation of new processes, changing or elimination of existing processes or organizational goals. In the course of the strategic controlling information about the achievement of objectives or of strategy are acquired, for example via a Balanced Score Card or a target-performance comparison. The strategic controlling can be considered as an independent control function which is permanently delivering feedback to each individual level of the strategic management process [Ring04].

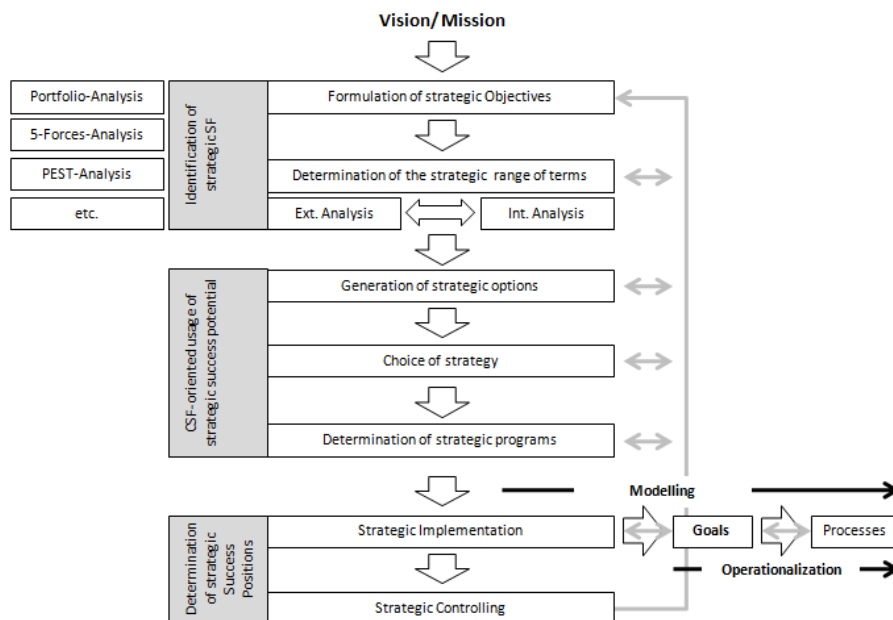


Figure 2: Success-factor-based-Management
[own illustration based on Ring04 and Nage93]

3.2 Success & CSFs:

There's no common definition of the term (company) "success" in the regular scientific literature. This is due to the fact that there are a lot of different measures for success and goals depending on the age of the company, the strategy, etc.

² based on PORTER

On the one hand by means of financial KPI's³ like revenues, profit and return and on the other hand of other, less measurable indicators e.g. employee-, customer- and supplier-satisfaction. Therefore the definition of company success from [Frit92] seems to make sense. It is showing that the term company success covers the level of target achievement [Frit92]. The publications of Böing, Kowallik and Kroiß are belonging to the younger surveys of CSFs in eCommerce. According to Kroiß SF are controllable factors having a sustainable influence to the success of a company. [Kroi03]. The knowledge of SFs allowing the entrepreneur rational and transparent decision in the course of strategy definition and it is a valuable orientation for the strategic planning. SF received a basically strategic meaning [Böin01]. Kowallik holds the view that SFs are essential long-term determinants of company success [Kowa04]. Concerning to the term "success factor" the literature is offering a lot of definitions. For further applications we're going to use the definition of Kreilkamp (1987). In his view strategic (success) factors are elements, determinants or conditions which are having a decisive influence to success of entrepreneurial actions [Tjad03]. CSFs are differenced into general, sector-specific, company-specific and department-specific CSFs. Whereas general CSFs are applicable over all companies the specific factors needs to determined and developed separately [Nage93]. According to the influence ability and the strategic analysis [Lang82] and Kreilkamp (1987) distinguish into external, not influenceable and external influenceable factors [Lang82]. We shall dispense with the exact definition of the terms "success factor" and "success potentials" in order not to go beyond the scope of this work. For further applications SF and success potentials are the same.

4 An Approach to CSF-Management

On Figure 1, we explain that this work seeks to fill in two gaps: (i) the gap between CSFs and strategies, as well as (ii) between CSFs and operational BPs by:

- 1. Extend the i* notation with constructs for CSF modelling:**
Specific modelling constructs are necessary to represent concepts related to CSFs and also to express the influence these concepts have on the rest of the i* constructs.
- 2. Extend the eEPC BP modelling notation with elements for CSF modelling:**
In a same fashion as for the previous extension, another one is needed for the target BP modelling notation. We have opted for the eEPC because of its simplicity and widespread use in comparison to other ones, such as BPMN.
- 3. Provide modelling functionalities for quantifying CSFs using metrics:**
Once it is possible to model CSFs, it is required to model how CSFs can be evaluated. CSFs can be defined according to several dimensions, with several criteria defined for each. Based on these, and on metrics defined for the latter, custom quantifications can be defined by the modeller.

³ Key Performance Indicator

4. Define a transformation from the i* notation in to target eEPC notation:

In order to reuse the information gathered at the strategy level in the extended i* models for business processes, a transformation mechanism has to transform information related to CSFs into information that can be represented for BPs. This transformation identifies which CSFs participate in which business goals and transports this information, as well as the definition of the CSF itself into the operational level, where business goals can directly be linked to processes and activities.

5. Define mechanisms allowing the analysis of the level of compliance of modeled BPs to CSFs:

Based on the outcome of points 3 and 4, an analysis step can be added to the approach. This step uses the quantification aspects modeled for CSFs, and combines it with information about the BPs for which these CSFs have been defined. The outcome of this step is an evaluation of the degree at which BPs actually support identified CSFs. This point can be tackled in similar fashion to classical work on KPIs.

Points 1 to 3 will require designing a common CSF meta-model on which point 4 will also base its transformation. This meta-model describes the constructs needed to model CSFs and relationships between them. It also defines how instances of the meta-model constructs look like in both the i* and the eEPC notations.

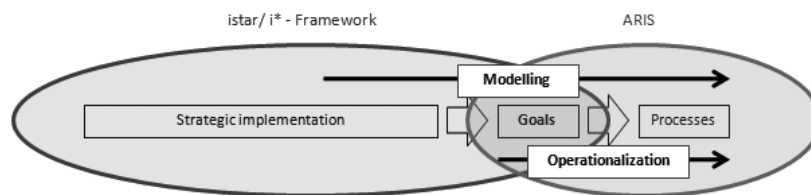


Figure 3: Modelling of strategy, goals and processes [own illustration]

5 Frameworks used in the Approach

5.1 istar/ i*:

"Although i* is a »brain-child« of software RE research, it can be used as a powerful tool to model organizational tasks, processes, actors, and goals" [Misr+05].

As [Decr08] puts it, "the i* modelling framework provides us with different modelling constructs to specify intentionality". In [Decr08], a compact introduction to the most important elements of the i* notation is given. The i* modelling framework consists of two models: a Strategic Dependency (SD) model, which describes a process in terms of intentional dependency relationships among actors, and a Strategic Rationale (SR) model, which describes issues that actors have about existing processes and proposed alternatives. The core constructs are called intentional elements: goals, soft goals, tasks and resources.

A *goal* node in the goal tree shows that there are alternative ways of achieving the goal, but *no specific instructions* are given how to achieve the goal. A *task* node shows that we *specifically* know what to do but there are *constraints* on how to do it. A *resource* node refers to an available resource for fulfilling a goal or realizing a task, and a *softgoal* node will state the non-functional requirements to be attained while performing the task. In the SR model, task-decomposition links provide a hierarchical description of intentional elements and means-ends links provide the understanding about why an actor would engage in some tasks, pursue a goal, need a resource or want a softgoal. Again referring to [Decr08], using these constructs, the i* SD model describes a business process in terms of intentional dependency relationships among agents. The i* Strategic Rationale (SR) model describes the internal process in more detail from the point of view of one of the agents. In the SR model, task-decomposition links provide a hierarchical description of intentional elements and means-ends links provide the understanding about why an actor would engage in some tasks, pursue a goal, need a resource or require a softgoal.

5.2 ARIS Framework the EPC notation for BPM

ARIS stands for Architecture for Integrated Information Systems and is a framework for enterprise modelling that places business processes at its core. In [Sch02], the ARIS framework is introduced through its 5 views: Organizational, Data, Functional, Product/Service, Process (Fig. 4). In ARIS, the focus is set on abstracting business related problems as models that can be expressed using the ARIS eEPC (extended Event-driven Process Chains) notation [Sch00]. This notation allows capturing enterprise aspects of a business context or problem according to the five ARIS views. This allows providing a common knowledge repository for business analysts and process modelers on the one side, and for designers of software solutions. Thus developing an IT implementation to the business problem can be based on clear and common requirements. The process view is the one that bridges all the others and stores information about the value creating activities of an enterprise. One of the notations used for this is the Event-driven process Chains (EPC). EPCs are an intuitive concise notation that is event driven. It allows specifying the macro behavior of a process chain. EPC models are temporal and/or logical sequences of process activities (called functions). An EPC can be seen as a set of functions triggered by one or more events. On top of that, an EPC is composed of connectors that allow parallel and conditional execution of processes.

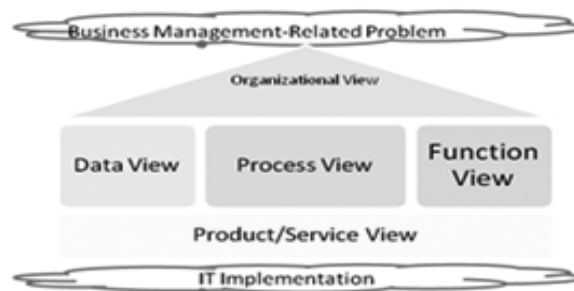


Figure 4: ARIS House of BPM [own illustration]

6 An Example: Managing an E-Shop's CSFs

6.1 Process Domains of an E-Shop

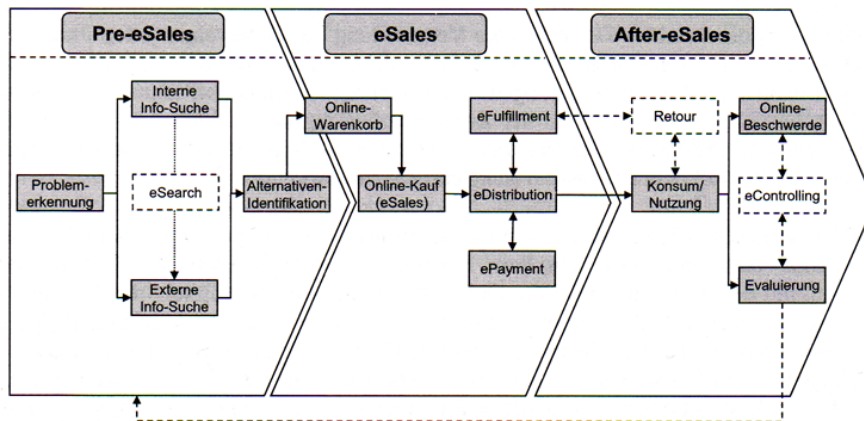


Figure 5: Main Scopes during Shopping-Process in an E-Shop [Koll09]

Tobias Kollmann [Koll09] describes in his widespread publication "E-Business" the three scopes "Pre-eSales", "eSales" and "After-eSales" of an E-Shop. Concerning to the simple and practical traceability we're using this model as a reference model to show and discuss our approaches. The main task of the Pre-eSales-Scope is the identification of the customers demand and turn the E-Shop with appropriate advertising efforts into their spotlight. The eSearch-process as an important item of this scope helps customers to find desired products or alternatives.

The Pre-eSales and eSales are linked together through the shopping cart. By using the "Checkout"-Function the eSales-Scope with the properly sales-process is starting. The primary goal of this scope is a prosperous and smoothly handling of the transaction. Sub-processes like payment- and fulfillment-processes as well as the distribution-process are supporting that. Because of the proximity and direct gateway-function to the customers these sub-processes are having a significant symbolic weight. With the delivery and handover of the product to the customer the eSales is generally completed. From this moment the customers are able to use the product. In the After-eSales-Scope our reference-E-Shop offers different service-processes to its customers e.g. in the case of a re-shipment, additional questions or orders.

This area is very important for customer satisfaction. Satisfied customers are mostly remaining loyal to the E-Shop or recommend the E-Shop and its service. By using a sustainable data collection an E-Shop will be able to improve the assortment, processes, performance and service level [Koll09].

6.2 CSF Customer Proximity

In this chapter we'll presenting some selected results of the CSF-Research, near to the customer proximity. We understand customer proximity as the set of all actions which is perceived by the customers, e.g. advertising efforts, support and usability during the eSales-Process and all services to customers inside the three scopes. Kurt Nagel [Nage93] describes in his system of the six SF, developed with representatives of industry and accepted in industry, the customer proximity as a general SF. Possible indicators are the product policy, the distribution policy, the sales and customer service, the corporate identity as well as the ethical behavior to customers, the communication strategy and the modality how the business is carried out [Nage93]. For the eCommerce the customer orientation is also distinguished as a CSF. The Online communication, the integration of additional community-building elements as well as the delivery-time are other central SFs with high impact to the company success [Böin01]. According to Kowallik (2004) an interactive presentation of the assortment, the community building and the adaption to customer needs are important for the success of an eCommerce-Company. The usage of a multi-channel-strategy is having a significant impact to the growth of a company, particularly of companies which are offering physical goods. Significant expenses for product (development) and technology - providing a pleasant customer perception - are also possible resources to generate competitive advantage [Kowa04].

Additional studies, not mentioned here, also numerate virtual communities, the inclusion of customers into the product- and service-development, the connection between online- and offline-markets, online marketing, interactivity, customer loyalty programs and personalization respectively customizing as CSF⁴. It is easy to recognize that the CSF customer proximity is containing the whole value-added-chain in eCommerce. Personalized products and marketing⁵, the customer support within the Pre-eSales-, eSales- und After-eSales-Scope as well as the evaluation of the customer behavior and specifically adapted products/ services are some examples how customers and the environment are having impact to actions and strategy of a company. During the development of a strategy and combined analysis the management is working at a very abstract level. A tool that allows the management to model business strategy and CSF in a very high level is required and it should provide a connection to Business Process Analysts as well as to Business Process Manager for the communication of high-level-goals, the (re)design of processes and the implementation.

To show an example in modelling CSF via i* we've chosen the element "online community" and placed it into the E-Shop-reference-model and a strategic rational model based on Yu [Yu01, Koll09].

⁴ [Böin01, pp. 26-29]

⁵ e.g. within Social Networks

6.3 Use Case: Integration CSF via i*/ istar

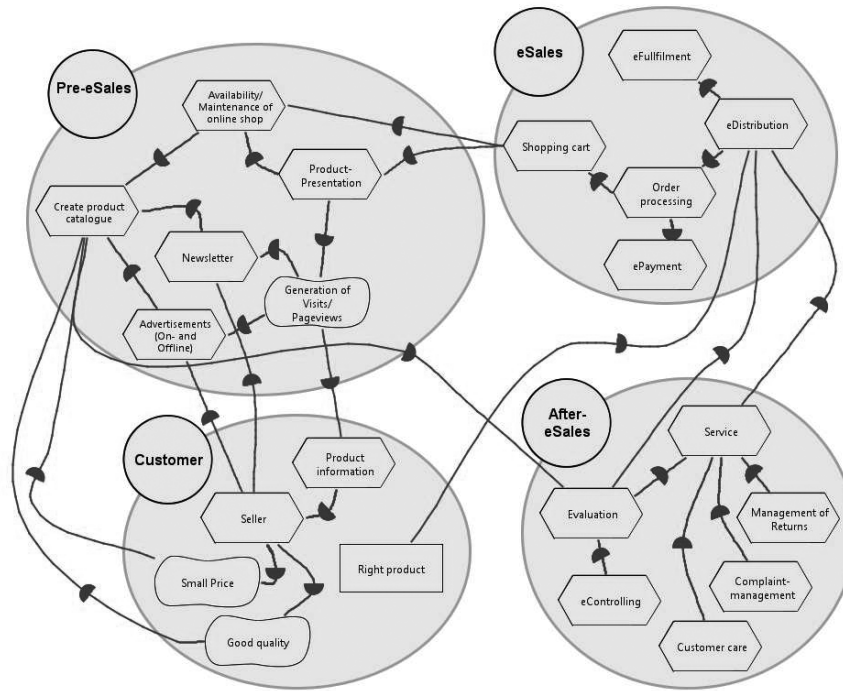


Figure 6: The process areas of online shopping in an E-Shop modeled as a strategic rational model via i* [own illustration based on Koll09]

A first possible approach we're discussing is the extension of the graphical notation to the existing i*-syntax. The following simplified Figure shows approximately the three scopes of our reference-E-Shop expanded by the scope of the customer and by Pageviews as a Softgoal⁶. The customer scope displays the customers search for a product with the preferences good quality and low price. To find an adequate product the customer depends on advertisements of E-Shops. If his matching (e.g. via search engines, newsletter and recommendation) is successful the customer is going to visit and scanning the E-Shop. During his visit the customers generates KPIs like Visits and Pageviews. If the customer decides to buy a product, the process will work analogue chapter 6.1.

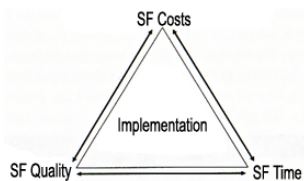


Figure 7: Strategic CSF Triangle [based on Ring04]

In our use case the management decides to launch an online community and display it as a CSF into

⁶ KPI for eCommerce; Pageviews are the number of real hits on an E-Shop, e.g. product pages

the strategic rational model. Important for management is the separate graphical notation to emphasize the importance of this community and the involved goals. We decided to take a triangle as a possible notation for a CSF in i*. On the one hand this notation is not been noted yet in the official i*-Wiki and on the other hand a triangle is used as a sentinel to get attention, e.g. in traffic and other daily situations. Later on we show an example for the parameters "Quality", "Time" and "Expenses" as implementation indicators on every angle. The aim is to link connected KPIs with process goals for a strategic control (see Figure 2).

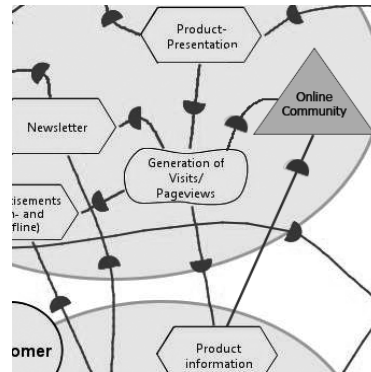


Figure 8: Illustration of a CSF in i* [own illustration based on Koll09]

Figure 8 shows the CSF "Online Community" modelled in the Pre-eSales-Scope. In this case the CSF visualizes a dependency between product information and visits to the online community⁷. It's imaginable to link implementation indicators (Quality, Time and Expenses) with CSF. This allows a measurement. On the basis of our reference-E-Shop-model a possible goal-formulation for the implementation of the online community can be: *"The Online Community must go online until 01.05.2010 with a budget of 300.000 EUR. The features must need the standards user profile (creation, editing, and deletion), friends-lists, chat- and messaging-system, common group-functions as well as a recommendation-system, an invitation-function and links to the shop/ product pages"*.

In this case the three parameters of implementation are labeled and measurable with time (01.05.2010), expenses (300.000 EUR) and quality (features of the community). Additional KPI can be number of new customers, visits, page impressions, orders via online community, etc. Figure 9 is showing the extension of the existing i*-notation with the "CSF-Triangle" and a "CSF-Triangle" with performance parameters of implementation.

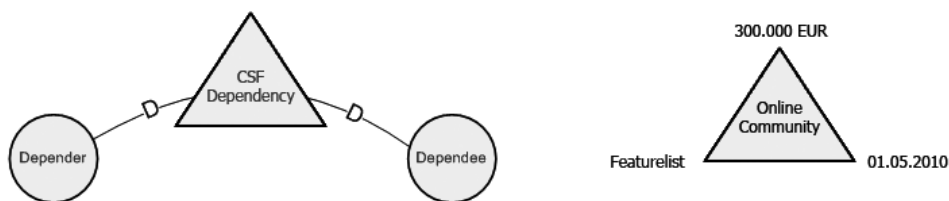


Figure 9: CSF-Triangle

⁷ via links and advertisements linking from the community into the E-Shop

7 Related Work

Our goal is bridging the gap between CSF management at the strategy level and the operational (BP) level. This is also the topic or research of the so-called Business/IT-Alignment community⁸. But such works rather deal with IT strategies than with business strategies. Modelling strategies involves a variety of proposed notations and models such as the Business Motivation Model (which proposes a common meta-model for dealing with strategy aspects such as visions and strategies) [BMM08], the Semantic Business Vocabulary and Rules (which proposes a meta-model and a natural language-like for modelling policies and rules) [SBVR08] which are both standards published by the OMG⁹. Using these standards for realizing our vision would constitute a bottom-up approach to CSF management and does not comply with our goal of capturing business level CSFs. Although these both standards are of very practical use when extending BPM with strategy and rule modelling capabilities, we assert that they do not allow the freedom allowed by the intentional elements of the *i** notation. Nevertheless, deeper study of how the contribution of these both standards can enrich our work which is strongly based on strategy theory from a business point of view will be of high interest to us. Another group of works rather seek to transport strategy-level information into the BPM level. Markovic [Mark08] extends BPM methodologies with an ontology for managing business goals at an appropriate level of abstraction. The authors provide a business goal notation and allow integrating the intentional elements modeled by goals into BP models and to reason over them. On the other side, Anderson et al. [And08] base their work on the observation that existing information system modelling techniques need to be leveraged to work on a strategic level where successes can be determined.

The authors propose an approach that uses goals and business models as a foundation for creating business services. Both works closely relate to our approach, with the difference that we seek to extend these with CSF management. Finally, the work done by Decreus [Decr08] seeks to propose a transformation framework for generating semantic business process models that are compliant with an initial strategy model expressed using a formalized version of *i**. Again, apart from the focus by Decreus on semantic business process models (whereas we focus on non-semantic BPM frameworks), this approach is an important source for our work on dealing with CSFs. Products such as the ARIS strategy platform¹⁰ show the industrial relevance of tackling problems related to strategy in the scope of BPM, however, these tools usually rely on the pre-definition of metrics and KPIs. These do not allow users to think in terms of business strategy at an adequate level of abstraction.

⁸One reference event organized by this community is the BUSITAL workshop series:
<http://busital09.isis.tuwien.ac.at/>

⁹Object Management Group: www.omr.org

¹⁰http://www.ids-scheer.com/en/ARIS/ARIS_Software/ARIS_Strategy_Platform/5272.html

8 Future Work & Conclusion

This work poses the fundamentals of the approach we propose for bridging the gap between CSF management and BPM. We proposed the combined use of the i* notation as a support for strategy thinking and the ARIS platform as a support for BP-orientation, also relying on EPCs as a process modelling notation. However, we still need to propose a concrete language extension to both notations, in order to allow CSF modelling. We plan to conduct a case study in order to gather initial requirements for both language extensions. These two language extensions will be in the form of a common meta-model for CSFs, which will lead to a graphical representation of its constructs and its syntax, in both the i* and EPC notations. This meta-model will also include quantifications of CSFs, as required for assessing CSF fulfillment. As explained in Section 4, we plan to describe and implement a transformation that reuses the CSF models created using our extended version of i* and produces EPC models enriched with CSFs. This transformation will also make use of the CSF meta-model. Eventually, an implementation of this language extension and the transformation into ARIS will be provided based on tool support for i* modelling (using the Formal Tropos specification [Cas02], e.g. the TAOM4E implementation [Per08]). We have motivated the need for a top-down approach to dealing with strategies and CSFs in the context of a BP-oriented enterprise and the fundamental economic and business principles behind this. We have also proposed an approach for supporting business rules involved at the management level in dealing with CSFs. This approach relies on two standard notations and frameworks for respectively strategy modelling and business process modelling, and uses business goals as an interface between the strategy layer and the BP layer. This work will help business users to bridge the gap between managing CSFs and BPs.

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