

Interview with Reinhard Schütte on “Managing Large-Scale BPM Projects”

Reinhard Schütte is Guest Professor for Information Management and Retail Information Systems at the Zeppelin University, Friedrichshafen, Germany. He got his PhD in business informatics from the University of Muenster, Germany. He was in different leading positions (CFO/CIO, COO) in German retail companies and was responsible for a number of big software implementation projects. At last, he was member of the board of EDEKA AG, Germany’s largest food retailer, where he was in charge of the Lunar-Project. With an overall budget of approximately 350 Mio. € it is the largest SAP retail project in the world. His research topics are information and project management, information modeling and scientific theory.

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BISE: Throughout your career, you have been in charge of a number of large-scale BPM projects. What are the criteria in defining large-scale projects and what is special about this kind of project?

Schütte: The projects I have contributed to mostly dealt with the introduction of IT-systems in the retail sector. For me, projects with a budget of about 30 M € and a duration of five or more years, become large-scale projects. In such projects the complexity in the

three dimensions, IT-systems, organization, and project management increases drastically. Since the overall complexity doesn’t merely increase additively in those three dimensions, the overall complexity increases enormously. The resulting challenges are very specific.

BISE: What challenges are you referring to?

Schütte: The major challenge is to define clear project objectives and to strictly follow them throughout the entire project duration. These objectives have to be economically motivated, because the replacement of an IT-system or the minor change of an individual process are not adequate motivation for a large-scale project. Nowadays, simple efficiency considerations are not sufficient either, because a project volume of 30 M € cannot be justified by increased process efficiency. This example would require yearly savings of 3 M € with a payback period of ten years. You will rarely find the required degree of inefficiency for such calculations. Large-scale projects are about value-creation potentials, not cost cutting. With a duration of five to ten years and a lifespan of thirty to forty years for the results, a large-scale project is an investment in value-creation potentials in ten years. Thus, the main question is: what are the main value-creation potentials? At the start of the project it is therefore necessary to ensure the business quality of the requirement definitions, in order to enable the organization to accomplish what was previously impossible. This requires employees to completely change the way they

work in ten years, which is impossible without extensive training and further education. These objectives are more important than annual savings of – let us say – 200.000 € in invoice verification.

BISE: Are project periods of more than five years and a lifespan of thirty years still consistent with the rapid change occurring in the market? To what extent do you design a large-scale project towards flexibility?

Schütte: Certainly, you cannot foresee the future, but in the past we have seen systems run that long. It remains to be seen, what effects trends such as cloud computing will have, but I doubt that future changes will fundamentally differ from the ones known today. However, technological flexibility of IT-systems, particularly of the system architecture, will assume a more and more critical role. From my point of view, this is the main advantage of standard software, because the technological base is encapsulated and thus can be changed flexibly. Without this flexibility one is limiting one's own business model.

BISE: Do available standard software systems adequately support such transformations, or do you see a need for adaptation?

Schütte: They support them, but not in the best possible way. I see weak points, especially within the data models and the quality of the development environments of the systems. This is where they lack the flexibility to enable organizations to implement their own requirements. It is therefore rarely profitable to develop fundamental functionality within a specific project.

Driven by the desire for increased automation, requirements on quality and wealth of information of the master data increase. In my opinion, available systems are not per se prepared for these challenges.

BISE: There are a lot of failed large-scale projects. What are key success factors and obstacles to a project's success?

Schütte: Most important key success factors are clear project objectives, as mentioned above, support from the organization, competence of the organization, and supplier management. Supplier management, referring to the software supplier, requires adequate cooperation and appropriate competence of the technology provider. In addition, large-scale projects need very exact and rigid project management and governance, because strict rules and enforcement are far more

important in projects than in line organizations. Large-scale projects require strict management, because one always encounters a very pronounced requirements culture in companies. Due to the long time frame for large-scale projects, the requirements that are desired to be implemented are always enormous. If you follow only these wishes you will, however, never implement a proper solution. Sometimes it is necessary to realize 80 percent and subsequently adjust for further needs. Moreover, coming up with a 100 percent solution exceeds the skills of almost all organizational members.

BISE: You have mentioned the integration of the software-suppliers as an important factor for success. What is the work distribution between software-supplier and organizations in projects of this type?

Schütte: I see it as a kind of “bathtub effect”. The start of the project must be supported by the internal organization. In this phase, the attention on the part of the employees is large, but input by the supplier is indispensable to achieve changes that are as extensive and constructive as possible. Subsequently, there is more effort on the part of the supplier until the internal effort prevails once again during the implementation of the system. However, interest and attention of the organization decreases during the project, especially due to the arising knowledge divergence that is caused by the new technology. This divergence has to be actively and continuously reduced.

BISE: In this context, how do you motivate the employees to participate actively and to develop ideas which go far beyond existing approaches? Does the impetus originate from the project management or rather from the employees?

Schütte: Devotion and passion to positively approach and implement such a project requires the existence or development of a positive corporate culture. As the will to change is most often only marginal, existing approaches have to be actively challenged. The project management team depends on people who push changes and convince all project members. Internal and external project members have to cooperate. To facilitate the view of a joint project, all stakeholders have to be simultaneously addressed. Only the focused collaboration of all involved parties and the continuous motivation and enthusiasm over long periods, enabled possibilities to become reality.

BISE: Many sub-fields of information systems investigate conceptual models. To what extent are models, especially process models, useful in large-scale projects and what degree of modeling detail is required to fulfill their purpose?

Schütte: During the initial requirements definition, detailed models are less viable and written word dominates all other modeling techniques. Modeling is often used complementarily, this development is however most likely to be driven by external parties. In my experience, the information systems community does overestimate the importance of models in real, large-scale projects. You will often find models in the early project phases, but there is no reuse later on. We have to investigate how models can be productively used over a longer period of time within a project, given that the project team changes over time. A stable base of knowledge bearers is thus essential for the motivation of the project team. There are only few, who participate in a large-scale project during their career. Therefore, the project has to be successful to uphold the belief in a successful project and to stop key figures from leaving the project. For me, this includes the use of adequate methods in project management and modeling. Since research is currently focusing heavily on modeling techniques, their number steadily rises. In a project with hundreds of consultants, these often have contradicting academic backgrounds. The resulting plurality of modeling techniques is what makes model reuse impossible.

BISE: Let me ask more pointedly: Is it possible that the information systems community is concentrating too much on methods, rather than model content, and thereby neglecting the business in business processes?

Schütte: Yes, I think so. I even argue that this applies to software vendors in a similar fashion. For a long time they have focused on technology and neglected domain specific knowledge. Today we know that successful projects are impossible without proper domain knowledge. I am strongly in favor of capturing this knowledge in its essence within models. It can considerably improve the efficiency of projects and the collaboration between internal departments and external consultants or internal IT staff. Consultants and research, however, neglect this modeling purpose. Instead, we depict our internal department's spoken word in overflowing process models. This is insufficient, because only expertise and domain

knowledge guarantee successful collaboration between internal departments and external consultants, for example, in the identification of requirements.

BISE: Does the information systems community focus too much on formalizing models and neglect the business content of model elements which are less strongly formalized?

Schütte: Information systems is too close to computer science and too far from business reality. The intellectual challenge towards stronger formalisms prevails and forces researchers to move in this direction. This also applies to selected areas of business administration.

BISE: You demand more business knowledge and less formalization. Are there other issues that need more emphasis in the information systems community and information systems education?

Schütte: When the technology environment is dominated by an oligopoly of software suppliers, there is less demand for individual system development from a business point of view. You have to accept that large-scale projects depend on the technology providers. You no longer have to think about how the world would be, if you design everything from scratch. This is not new, but in my opinion, information systems

education is still heavily influenced by scratch-up IT-system development. We do not question how to handle predefined technology and the thus partially predefined business processes. The challenge is bringing together an as-is business reality and an as-is pool of potential IT-systems to develop a to-be situation. It requires detailed knowledge of both business and technology. In managing the as-is situation, domain knowledge and the perspective on technological advances of the technology providers is what generates economic benefits for the company. I believe that this economic benefit is neglected too much in information systems.