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Corporate Foresight
A Delphi Study on the Use of Methods of Future Studies

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Purpose

The purpose of this paper is to provide new impetus to the design of strategy and innovation processes in companies. Its intention is to contribute to the discussion of methods of future studies and thereby to increase the practical relevance of future research in businesses. To this end, the specific requirements that these methods have to meet in order to be applicable in companies are presented and recommendations given both for companies and the profession of future research.

Looking into the Future: Methods of Future Studies

In every business, there is the need to gain insight into future trends to be able to respond to forthcoming challenges, but it is impossible to identify such trends without attempting to look into the future. As fantastic as it may seem, the application of the methods of future studies actually makes this look into the future possible. However, the use of the methods is often perceived as incompatible with the current workflow. Therefore, this study is primarily concerned with the question of how the methods of future studies can be best applied in business environments.

Making Strategy Processes More Profitable

The paper intends to give impetus to the discussion about methods both in the discipline of future studies and in businesses considering the specifics of future studies when applied to the business context. The main goal is to set the stage for improvements of the methodological quality of future studies when applied to businesses and to increase the relevance of future studies to businesses. It aims to supplement the discussion of methods in future research and thereby increase the practical relevance of future research in business. These requirements can serve decision-makers in companies and research to plan and evaluate the methods used to make strategy processes more profitable and efficient.

Methodological Background of Delphi

The methodology of this study consisted of a literature analysis, an empirical study and the deduction of theoretical and practical implications. The first step to answer the research questions was to examine the theoretical and conceptual background by means of a literature review. Subsequently, an empirical survey in the form of a preliminary and a main study was carried out. The preliminary study consisted of 15 expert interviews. Then a Delphi study was conducted in two rounds. The results of the empirical survey served to derive the requirements that the methods of future studies would have to meet in companies. Recommendations, both for the discipline of future studies and for companies, on how the methods can be modified so as to meet those requirements were described. The research project was based on the mixed-methods approach with an emphasis on qualitative research. In the preliminary and the main study, different qualitative methods were used. In the main study, quantitative data and qualitative data were triangulated.

Participants of the Study

A total of 204 experts were invited to participate in the study. Of those invitees, 58 took part in the first round of the consultation and 35 in the second round; 32 participants completed the entire survey.

The experts chosen to participate in the survey were required to have wide experience in the use of methods of future studies in businesses. The goal was to involve experts with diverse professional backgrounds. Some experts had an academic background in areas of future studies and innovation management, some came from strategy and innovation departments of both SMEs and global corporations, and others from a background in management consulting and research and development departments.

Figure 1: Participants (graph created using Balsamiq Mockup)

Problems and Requirements in Applying Methods

The empirical results show that there are specific challenges in applying the methods of future studies in businesses. The methodological design and the implementation of the methods often prove to be difficult. Among the reasons for these problems are lack of knowledge, processes that take too long, limited human and financial resources as well as difficulties in communicating the results. The identification of these problem areas made it possible to derive a set of requirements that the methods of future studies have to meet so as to be applicable to businesses: they have to be easily learnable, transparent, motivational and easily communicable. Further, measurability, the capability to tie in with other methods, the scalability of the method and possibilities for collaboration are important.

Learnability, Transparency and Transferability

The methods have to be learnable with reasonable effort at different skill levels because there is often a lack of methodological knowledge in business settings and a knowledge gap between different hierarchical levels. The results of this study also show that there is not only a lack of knowledge about the necessary methodological steps but also uncertainty about the potential insight to be gained by applying the methods. Therefore, both the concepts of the methods applied and the ways in which they can be implemented have to be transparent. It is further necessary that the methods can be transferred both to and from other fields of application. This need arises from the ever-expanding range of methods, from limited human resources and from the diverse intentions that can motivate the use of the methods.

Motivational Potential, Communicability and Evaluation

The empirical data point to difficulties in motivating the people involved. Since it is crucial to produce and maintain motivation, the methods should satisfy the criteria of being motivational. The communicability of methods is also central in the corporate context. The study shows that there is scepticism about the discipline of future studies and its methods that needs to be addressed. Successful communication can also help to avoid false expectations, which otherwise are often perceived as serious obstacles. Another requirement is the measurability of the process and the outcome. The need arises because many experts believe that it is impossible to verify the outcome of the methods based on "hard data". The results of the study show that many experts for this reason emphasise the value of the process itself.

Figure 2: Requirements (graph created using Balsamiq Mockup)

Scalability, Flexibility and Collaboration

The empirical data show that the period for the implementation and evaluation of the methods is often perceived as being too long. This suggests that there is a need for temporal scalability. The length of the implementation period, and thus the costs, must be adaptable to the actual situation of the companies. Further, the methods should allow for joint implementation since

knowledge from within the company has to be extracted and made explicit. The study reveals hurdles in this process; the involvement of all stakeholders is perceived to be difficult. An essential point of concern is the complexity of the research object, which requires that the chosen methods can be combined. The empirical evidence suggests that stakeholder participation is already used by many, but the potential is not yet exhausted in some places.

Overcoming Hurdles through a Joint Process of Methods Development

The study revealed a number of problem areas in the use of the methods. These problems can only be solved through a joint effort on part of the profession of future research and the companies. Focusing on methods only may prevent us from perceiving the limitations but also the opportunities in applying them in certain settings or situations. Therefore, the use of the methods can only be improved if we consider the specific requirements of the companies in question. On the other hand, looking at the operational procedures in a company only may in turn prevent the emergence of new perspectives. Concentration on daily routines may lead to ignorance of the world outside the company and therefore to missing new opportunities.

A joint process of developing and adapting methodology could result in devising methods capable of transferring and integrating knowledge and research results about the future instead of creating an abstract "methodology of future research". The study allowed to derive suggestions for a potentially successful joint working process.

How Can the Hurdles Be Overcome?

The members of the profession need both strong methodological and excellent teaching skills to facilitate the learning of the methods. The methods of future research should be taught in different contexts: in higher education as well as in vocational training and further education programs at various skill levels. Companies should identify the knowledge gaps of their employees in order to address these specifically.

In order to achieve transparency, it is necessary to disclose the processes involved and the criteria used for choosing a particular method. To satisfy this requirement in a company, it is possible to focus on internal transparency so that internal company knowledge does not have to be exposed to outsiders.

Practitioners of future studies need to be proficient in interdisciplinary and interface skills to promote the transfer of methods both from and to other fields of application. In addition, an intensive exchange between future studies, related disciplines and companies is very important.

Expert knowledge about motivation is needed to motivate those involved in the use of future studies methods. Both the profession of future studies and the companies have to recognise the importance of motivation for the methodological process. Further, companies should enhance social and career-enhancing incentives to motivate employees involved in foresight processes.

The basis for the successful communication of the methods is a high level of expertise and communication skills of the practitioners of future studies. This includes both verbal communication itself and communication about communication formats. In addition, the professional management of expectations and individual communication concepts are important in dealing with stakeholders in the company.

Knowledge about evaluation concepts as used in the profession of future studies is necessary to be able to assess and measure the outcome. Reviewing the steps taken should be a natural part of every project. To be able to do so, businesses need to make structural adjustments such as define responsibilities and plan a budget for foresight processes.

To make sure that methods can tie in with each other, it is necessary to be open to experimentation, extend the combination of methods and also to evaluate systematically. For the profession of future studies this means that methodological approaches have to be extended with a focus on both internal and external methods of triangulation to create meaningful combinations of methods.

In order to make sure that the methods can be implemented collaboratively, existing methodological concepts have to be expanded. Possibilities to collaborate should be integrated in methods that have been unsuitable for collaboration so far.

Solid knowledge of project management is essential to be able to assure the temporal scalability of the methods. Therefore, practitioners of future studies need to be able to acquire such knowledge during their training. The profession should also actively participate in the discussion of how to adapt the time scale of the methods. A key aspect to improve the handling of methods could be the application of appropriate software solutions.

Limits and Areas
in Need of Further Research

Whether such a thing as methods of future studies even exists is an issue that is still discussed controversially within the discipline of future studies. The lack of a scientific consensus both on the methodological canon and the classification of methods is responsible for the fact that this study could only provide a limited view on the application of methods of future studies in companies. It is impossible to presume that all participants of the preliminary and the main study would share a common understanding of the term "methods of future research".

Therefore, the range of existing methods is only inadequately presented and quantified.

The sample of this study is subject to restrictions: the fact that the participating experts were selected with a focus on their experience in strategy and foresight processes may potentially distort the picture. The reality of those companies that do not deal with strategy at all is not represented in this study either; hence the need for further research. The companies' reasons for having only little contact with future studies or no contact at all have to be understood. This would be an addition to the results of the present study and might reflect even better on the individual perspectives of different protagonists.

Sources and References

Ambacher, N. (2012): "Corporate Foresight - A Delphi study on the use of methods of future research, taking into account the needs of industry and research", Master's thesis at the Free University of Berlin, Berlin

For more information about the study and its results, please visit the project website: www.delphibefragung.de

About the EFP: Policy professionals dealing with RTD, innovation and economic development increasingly recognize a need to base decisions on broadly based participative processes of deliberation and consultation with stakeholders. Among the most important tools they apply are foresight and forward looking studies. The EFP supports policy professionals by monitoring and analyzing foresight activities and forward looking studies in the European Union, its neighbours and the world. The EFP helps those involved in policy development to stay up to date on current practice in foresight and forward looking studies. It helps them to tap into a network of know-how and experience on issues related to the day-to-day design, management and execution of foresight and foresight related processes.