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Institut
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Organisation

Service research today and tomorrow

Spotlight on
international activities

Walter Ganz and Thomas Meiren (Editors)

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1 Foreword

Not even research and development can resist the sweep of internationalisation. On the contrary, the trend towards the internationalisation of research and development has intensified markedly in recent decades. One of the main reasons for this development is the acceleration of invention and innovation cycles and the concomitant need for knowledge to be exchanged quickly and efficiently. New globe-spanning information and communication technologies have also paved the way for entirely new forms of international cooperation. However, another effect of increasing internationalisation is competition for attractive R & D locations. Integration in international research networks and, above all, international reputation are destined to become critical decision-making factors determining the selection of locations in both the worlds of business and academia.

Many of these observations are also pertinent to the relatively young field of service research. To date, however, the service sector has tended to be neglected in Germany. Even though services now account for around 70 percent of gross national product, the attention of the general public and the worlds of business and politics is still riveted on production. A direct result of this infatuation with the manufacturing sector is that Germany continues to be perceived internationally as a classic production location but as much less attractive for service-related research and business.

These issues represent the point of departure for current project activities undertaken by the Fraunhofer Institute for Industrial Engineering, of which this study forms a part. The main aim of this study is to take stock of current international service research – focusing in particular on the role of Germany – and to initiate discussion on the action which the results of the study suggest needs to be taken. In particular the study aims to stimulate further work in the field of service research.

2

Study design

Walter Ganz, Thomas Meiren

The main focus of the study is the investigation and analysis of the current state of knowledge in the field of methodologically-oriented service research. A key aim of the study is to identify long-term trends and to reveal deficits in current research. The study is also complemented by an examination of innovative transfer models and solutions aimed at implementing scientific findings in service practice. The authors of the study draw on the results to formulate recommendations for and to suggest the direction in which service research should go in Germany in the future.

The study picks up the thread of earlier research work undertaken in the years 1995 to 1998, in particular activities in the framework of »initial projects of priority« launched as part of the »Services for the 21st Century« programme initiated by the German Federal Ministry of Education and Research. A great deal has been learnt in the meantime and the focus of research has shifted to some extent. While research work performed in the past – heavily influenced by Anglo-American members of the service research community – concentrated mainly on service marketing and quality, disciplines such as work design and engineering sciences have made a stronger impression on more recent service research.

In order to obtain the most comprehensive view of the different approaches and topics of current service research, the study began by elaborating an appropriate analysis model. The subsequent appraisal was followed by the analysis and processing of the results. The method adopted is described in more detail in the following.

Analysis model

A standard analysis model was elaborated at the beginning of the study to ensure that the individual results could be compared as accurately as possible. The study addressed four topics which, taken together, account for numerous contrasting aspects of current service research.

The first three areas – »basic research topics«, »applied research topics« and »mega trends« – relate to fairly well established fields of service research. In contrast, the fourth topic spotlights selected growth sectors in the service economy. These studies are accompanied by analyses of the management and transfer mechanisms which are operative in international service research.

Table: Analysis model

1	Basic research topics
1.1	Service definitions, typologies and morphologies
1.2	Service models and systems
1.3	Service specifications and standards
2	Applied research topics
2.1	Service innovation (new service development, design, engineering)
2.2	Service management (marketing, operations management, human resources)
2.3	Benchmarking and assessment
3	Mega trends
3.1	Internationalisation of the service economy
3.2	Professionalisation of the service economy (outsourcing, automation, etc.)
3.3	Quality of service employment
4	Growth sectors
4.1	Business services
4.2	Education services
4.3	Financial services
4.4	Information services
4.5	Media and telecommunications services
4.6	Non-professional services («unskilled jobs»)
4.7	Public services
4.8	Services in manufacturing industries
4.9	Social and health services

Appraisal

The actual appraisal activities were carried out using the analysis model. These activities basically consisted of a series of expert interviews, backed up by a study of international journals, international conferences, and internet communities.

The *expert interviews* represented the core element of the appraisal activities. A total of 25 internationally renowned experts in service research were selected and interviewed. Care was taken to ensure that the chosen interviewees were

not only able to offer expertise from the broadest possible range of topic areas but also that they represented the most important regions engaged in service research (Europe, North America, South-East Asia and Australia). Methodologically the expert interviews were supported by a semi-standardised interviewer guide. This guide consisted of the previously developed analysis model as well as scope for more or less open-ended discussion of topics of special concern. This loosely-structured approach generated both comparable results as well as allowing interviewees to gather more in-depth

information. In particular, this interview format provided an opportunity to discuss new research methods and results in more detail.

The appraisal activities also included a study of *international journals, international conferences and internet communities*. This was of particular interest as these media may be regarded as a form of research »trend barometer«. Internet-based communities not only provide a platform for the general exchange of information and experience, they are also forums for the initial discussion of new research topics and theoretical papers. Some time later – after a considerable period during which ideas are subject to extensive review – new topics are eventually discussed at international conferences and appear in international journals. As a result, an analysis of these media appeared to offer a promising way of spotting new research topics and trends. The study therefore selected the journals, conferences and communities most frequently cited during the expert interviews for further analysis. The study itself was, like the expert interviews, based on the analysis model referred to above.

All the appraisal activities were undertaken by staff from the Fraunhofer Institute for Industrial Engineering during the period from July to August 2002.

Analysis and processing of results

The appraisal activities were subsequently used to generate the key findings of the study and to formulate recommendations for further research planning in the service sector. At the same time, care was taken only to base conclusions on results which were regarded as possessing adequate validity.

Given that the study was based on 25 interviews, it is important at this point to emphasize that it would be inappropriate to claim that the results generated are in any sense representative. Despite this, the results of the interviews with recognised experts in the field of service research are of considerable moment and offer valuable support for planning further research.

3

Results of the expert interviews

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How do international experts describe the status of service research? How are researchers' perceptions of »services« as a field of study evolving and in which areas do experts believe there is an imperative need for research in the future? Answers to these questions were elicited and obtained in the framework of semi-structured expert interviews performed as part of the international appraisal of the state of the art.

Interviewees were selected among people who, on the basis of their research and development work, publishing activities and reputation within various scientific communities, may be regarded as authorities in the broad field of service research¹. 25 expert interviews – most of which lasted several hours – were performed in the period July to August 2002. The interviewer guide was comprised of two sections.

The first, largely structural section included questions on the most important internet communities and their contribution to supporting service research, relevant research-oriented journals, the most important conferences, and central organisations such as institutes, research funding and transfer institutions or networks.

The second section adopted a pronounced analytic approach designed to probe the current status of research and development and the relevant experts' assessment of future R & D needs.

This section of the interview focused on four areas: »basic research topics«, »applied research topics«, »mega trends« and »relevant growth sectors«². The key results of these qualitative and explorative interviews are summarised as a whole in the following.

3.1 Status of research

3.1.1 Structural aspects

Internet communities

There were three main findings with regard to internet communities and the support they contribute to activities in the field of service research.

Firstly, almost all the interviewees referred to websites which feature content broadly related to the service economy or which offer information and nuggets of knowledge relating to the topic of services (refer to Chapter 4). However it was also apparent from the responses that most of the websites referred to provide a narrow focus on a few highly specific aspects and should not be regarded as a major source of support for service research.

1 Refer to list of interviewees in the appendix
2 Refer to the analysis model, page 9

Secondly, the study revealed that neither the USA, nor the Nordic countries, the United Kingdom or the Asian-Pacific region are served by a cross-sector electronic platform offering comprehensive community functions relating to service research. None of the interviewed experts is aware of an electronic platform comparable to the German website www.dl2100.de which provides an exhaustive overview of projects and results in the field of service research. The research communities in the countries studied were also apparently unaware of the existence of the www.dl2100.de platform. This is not surprising given that the exclusively German content of this site represents a form of language barrier. However, it is important to mention at this point that, when the function and contents of the www.dl2100.de site was explained to them, many of the interviewed experts expressed the view that a virtual research community of this type would offer an interesting knowledge transfer and networking instrument. In international terms, the German-language www.dl2100.de platform clearly represents a unique feature of service research in Germany. Assuming that the language barrier problem can be overcome, this could be used to enhance Germany's attractiveness as a research partner in the context of an ongoing internationalisation of service research activities.

Thirdly, views differed in terms of the importance, benefits, and opportunities associated with the establishment of an internationally-oriented electronic platform covering a comprehensive range of research topics. In essence most respondents would welcome the creation of an electronic community in the form of a stable virtual realm for unlimited exchanges between researchers from various disciplines and countries, as well as with those working in the service industry, and believe that a more interdisciplinary and internationally-oriented service research would benefit from such a community. This not only depends on the development of robust and flexible technological resources, it also calls for a viable concept for the content and quality assurance of such a virtual community. There is broad consensus among the interviewed experts that an international electronic service research community would represent a useful tool for further development in this area of research. Nonetheless, none of the experts believe that electronic solutions could substitute for personal contacts. In the view of the experts, the direct and face-to-face exchange of thoughts, ideas and knowledge – in the context, for example, of conferences or research trips – will remain an indispensable and irreplaceable element in the education and continuing development of research communities.

Journals

When asked about the most important journals (refer in this context to the analysis of this topic in Chapter 4), experts referred most frequently to two publications – the »Journal of Service Research« and the »International Journal of Service Industry Management«. Quarterly editions of the »Journal of Service Research« have been issued by Sage Publications, Inc. (USA) since 1998. The journal is published by Prof. Roland Rust and David Bruce Smith, Chair in Marketing at the Robert H. Smith School of Business, University of Maryland. The mission of the journal is to provide a multidisciplinary outlet, international in scope, for the most advanced research in service. While the journal is academically rigorous, it aims to provide content which meets the needs of informed practitioners as well as scholars. The »International Journal of Service Industry Management« has been appearing five times a year since 1989 and is published by Emerald, MCB UP Ltd. (GB). The journal was launched by Prof. Robert Johnston from the Warwick Business School, University of Warwick and is currently published by Prof. Jos Lemmink from the Maastricht Academic Center for Research in Services at the University of Maastricht. The aim of this equally multidisciplinary journal is to help its readers build up a broader understanding of the key research and practical issues relevant to the fast-growing service sector. The journal strives to provide an appropriate and useful communication

medium for both those working in the service sector and researchers alike.

Other important journals which were frequently cited included: the »Journal of Services Marketing«, »The Service Industries Journal«, the »Journal of Services Technology and Management« as well as the »Harvard Business Review«, the »Sloan Management Review« and the »Journal of Business Review«. The experts also referred to a number of academic journals which reflected their particular disciplinary bias and which deal with specific issues frequently relevant to particular business sectors (e.g. marketing, retailing, information technology). Overall it would be fair to say that the »Journal of Service Research« and the »International Journal of Service Industry Management« are the key publications with relevance to service research. However, publications in highly-specialist journals are also regarded as important, not least owing to the heterogeneous features of »services« and the diverse approaches which therefore need to be taken to this research object.

Organisations, networks, conferences

University-based centre structures play an important role for research and the transfer of project output in the USA, as well as for service researchers in the United Kingdom and the Nordic countries. The main centre of service research in the countries studied is clearly in the business schools at public and private

universities. In the USA there is also a marked tendency to subsume service research topics as part of the sub-discipline of »service marketing«. Service research is also undertaken in areas of »management« as an aspect of business management covering topics such as organisation or human resource management as well as areas of »operations management« as an aspect of operative business management. These centre structures also play an active role in the field of continuing education, particularly in the context of MBA programmes and thus make an important contribution to putting research results into practice.

One example of a global organisation dedicated to service research is the »International Academy of Services Research and Education« (IASRE). This organisation features research institutes from countries around the world engaged in research and teaching in the field of services (in Germany, for example, the Chair for Service Management at the University of Eichstätt, held by Prof. Stauss). The purpose of the Academy is to promote international cooperation in research issues.

In addition to university centre structures, a number of interviewees referred to a few commercial, membership-based associations. Particularly noteworthy examples are the »Association for Services Management International«³, a global association for service managers, particularly in the field of high-technology

services, and the »American Marketing Association«⁴ the world's largest society of marketing professionals – both business practitioners and researchers. These associations provide differentiated internet content combined with various service functions, the organisation of major conferences, continuing education, and last but not least also provide a link between potential employers and job seekers.

According to some of the interviewees, the »Commonwealth Scientific & Industrial

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- 3 The Association for Services Management International (AFSMI) is a global organization dedicated to furthering the knowledge, understanding, and career development of executives, managers, and professionals in the high-technology services and support industry. The goal is to provide leadership and direction that helps the individual and corporate members expand their capabilities to meet the growing complexities and challenges of the industry. (<http://www.afsmi.org>)
 - 4 The American Marketing Association is an international professional organization for people involved in the practice, study and teaching of marketing. The principal role is to always understand and satisfy the needs of marketers so as: To provide them with products and services that will help them be better marketers. To empower marketers through information, education, relationships and resources that will enrich their professional development and careers. To advance the thought, application and ethical practice of marketing. (<http://www.marketingpower.com>)

Research Organisation⁵« (CSIRO) plays an important role with regard to the transfer of research findings in Australia. The CSIRO is an independent statutory authority constituted under the Science and Industry Research Act of 1949 and the Science and Industry Amendment Act of 1986 in the Industry, Science and Resources government portfolio. The organisation may be regarded as a major research institute and employs a staff of around 6,500, half of whom are academics. The main functions of the CSIRO are to perform research which assists industry, and to encourage the transfer and utilization of scientific research as well as to provide research projects with infrastructure support (laboratories, grants, training, international exchanges). Since 1999 the CSIRO has redoubled its efforts to promote research on innovation in the service sector. This vision is based on the insight that – in view of the increasing internationalisation of service provision – Australia is in danger of falling behind the competition from the USA, Asia and Europe, especially as regards fighting off increasing competition in its domestic market. CSIRO is also a response to the fear that, unless it makes up for lost time, Australia may fail to keep abreast of the latest developments in information and knowledge in the field of service research. The purpose of CSIRO is therefore »...to help to foster a culture of service innovation so that Australia can be a leader rather than a follower or borrower...« (McIntosh, CEO CSIRO, 1999).

The most important transfer organisations and research establishments in the service economy repeatedly cited by experts include (in alphabetic order):

Transfer organisations

- American Marketing Association AMA (<http://www.marketingpower.com>)
- Association for Services Management International AFSMI (<http://www.afsmi.org>)
- Commonwealth Scientific & Industrial Research Organisation CSIRO (<http://www.csiro.au>)
- International Academy of Services Research and Education IASRE
- Service Operations Management Association SOMA (<http://www.sampson.byu.edu/soma>)

Research establishments

- Center for e-service, University of Maryland (USA)
- Center for Service Research, University of Karlstad (S)
- Center for Services Leadership, Arizona State University (USA)

5 CSIRO is Australia's Commonwealth Scientific and Industrial Research Organisation. It is one of the world's largest and most diverse scientific research institutions. The work touches just about every aspect of Australian life: everything from the molecules of life to the molecules in space – finding ways to improve the quality of life and economic performance. The 6500 staff perform research and development over a broad range of areas of economic and social value. (<http://www.csiro.au>)

- Center for Services Studies, Roskilde (DK)
- Faculty of Business, University of Victoria (CAN)
- Faculty of Entrepreneurial and Service Management, Harvard Business School (USA)
- Graduate School of Business Administration and Leadership, Tecnologico de Monterrey (Mexico)
- Kenan-Flagler School of Business, University of North Carolina at Chapel Hill (USA)
- L'Institute d'Administration des Entreprises d' Aix-en-Provence, University of Aix-Marseilles (F)
- Lehrstuhl für Dienstleistungsmanagement, KU Eichstätt (D)
- Department of Business Administration and Marketing, University of Basel (CH)
- Maastricht Academic Center for Research in Services MAXX, Maastricht University (NL)
- Mays College of Business, Center for Retailing Studies, University of Texas A & M (USA)
- Norwegian School of Economics and Business Administration, Bergen (N)
- School of Business, Department of Marketing, University of Miami (USA)
- School of Business, Stockholm University (S)
- Faculty of Business, University of Victoria (CAN)
- SERVLAB Laboratorio de Investigacion del Sector Servicios, Madrid (E)
- Norwegian School of Economics and Business Administration, Bergen (N)
- Warwick Business School, University of Warwick (GB)

Mirroring the findings referred to in the section on internet communities, the experts tend on the whole to believe that research cooperation and the transfer of project output usually functions well at the organisation level if both are supported by the personal commitment of individuals. In particular the success of the centre structures referred to above – of which the most frequently cited were the Center for Services Leadership (Arizona), the Center for e-service (Maryland), the Center for Service Research (Karlstad) and the Maastricht Academic Center for Research in Services (the Netherlands) – is in most cases closely related to the individuals who work there, such as Marie Jo Bitner and Steve Brown at the Center of Service Leadership, Roland Rust at the Center for e-service or Bo Edvardsson at the Center for Service Research. This is also reflected in the value placed on personal networks. These networks are mainly the outcome of a consistent presence at major international conferences and are not only fostered during such meetings but also during other (international) research trips. Interviewees

cited the following as the most important conferences:

- International Conference on Frontiers in Services,
- International Research Conference on Service Quality QUIS,
- International Research Seminar in Service Management,
- SERVSIG Services Research Conference,
- Annual Meeting of the Decision Sciences Institute.

These conferences not only focus on their namesake topics, they also provide a forum for broader themes. Specialist conferences are also held in various countries. The study revealed that those recognised as the leading experts in particular (sub)disciplines of service research visit several (up to 10) international conferences every year. The German presence at these events, and thus Germany's integration in informal, international research networks, is regarded as decidedly weak (refer to Chapter 4).

3.1.2

Content and analytical aspects

In addition to the important structural aspects of international service research discussed above, the second section of the expert interviews explored the current status of research and experts'

assessment of the future need for research and development. The study focused on »basic research topics«, »applied research topics«, »mega trends« and relevant »growth sectors«. The aim was to find out how the status of research and development is currently assessed by international experts as well as to launch an open debate designed to lend impetus to further developments in this field. The following sections summarise both quantitative evaluations of the experts' responses and the central aspects of the qualitative responses.

Service research topics – quantitative status and future

The following table quantifies the statements relating to service research topics. The figures represent the number of ratings for each item. The fact that the ratings in one row may not always add up to 25 is due to the fact that not all the interview partners felt able to give a qualified opinion about all the sub-topics addressed.

Table: Distribution of expert weightings of issues related to service research

		Research intensity (in the past)					Need for action (in the future)				
		Low		High			Low		High		
1	Basic research topics										
1.1	Service definitions, typologies and morphologies	2	3	9	4	5	1	8	3	6	5
1.2	Service models and systems	1	8	9	3	1	0	1	5	11	4
1.3	Service specifications and standards	2	5	14	0	1	3	0	10	5	4
2	Applied research topics										
2.1	Service innovation (NSD, design, engineering)	3	9	6	5	0	0	1	2	7	13
2.2	Service management (marketing, HR, operations)	0	5	9	8	1	0	1	1	14	7
2.3	Benchmarking and assessment	1	7	11	3	0	0	1	8	10	3
3	Mega trends										
3.1	Internationalisation of the service economy	4	9	6	4	0	0	0	5	9	9
3.2	Professionalisation of the service economy (outsourcing, automation, etc.)	5	9	4	3	1	0	0	11	5	6
3.3	Quality of service employment	5	9	6	2	1	0	0	5	13	4
4	Growth sectors										
4.1	Business services	1	8	8	4	1	0	0	5	7	10
4.2	Education services	1	6	10	5	1	0	1	8	8	6
4.3	Financial services	0	1	5	9	7	0	1	12	8	1
4.4	Information services	1	3	8	9	1	0	0	3	9	10
4.5	Media and telecommunications services	1	4	11	6	1	0	0	3	13	7
4.6	Non-professional services («unskilled jobs»)	3	14	2	1	2	4	6	4	3	5
4.7	Public services	0	6	14	2	1	0	2	7	9	5
4.8	Services in manufacturing industries	2	14	3	4	0	0	0	1	13	9
4.9	Social and health services	0	2	11	10	0	0	0	4	15	4

Service research topics – qualitative responses

Basic research topics

This part of the interview contained questions on the status of research and future research requirements in terms of definitions, typologies and morphologies, specifications and standardisation, models and systems for services and service companies.

As far as basic research topics are concerned, the table values highlight the fact that issues dealt with in the realm of pure research are considered by the experts to be of growing relevance. A more detailed view shows that the widest variance in the experts' ratings of research requirements is expressed in their responses to the definitions, typologies and morphologies item⁶. This suggests that the experts' views divide sharply on the value or futility of pursuing theoretical and methodological work on definitions, typologies and methodologies, the benefits such work has generated in the past and, in particular, the need for research in this area in the future. There is however broad consensus regarding the current status of basic research topics. The majority of interviewees believe that the research work undertaken to date has been mediocre. The picture as far as future research requirements is quite different however. While a third of the interviewees argued that work undertaken in the past was adequate, or that service

research was unlikely to profit from further basic definitional, theoretical or methodological input, just under half of the experts believe that there is an urgent, or even very urgent, need for more research in this area.

The experts also perceive a growing need for research on the development of new, meta models capable of structuring, explaining and operationalising complex interrelationships in the services sector. While researchers resort time and again to the main established models, such as the service profit-chain, the gap model, and SERVQUAL, there is a growing awareness, both in Germany and abroad, that if service research is to develop further, improvements will have to be made to current models which are too generic in nature and yet which focus on highly specific aspects and are difficult to use in applied research.

The analysis of the responses to the specifications and standards item show that significance of this topic has changed more fundamentally than any other in the section on basic research topics. While the intensity of past research in this area was only regarded as very high by one of the experts, more than a third believe that there was a great need or very great need for research in the future. Despite the

⁶ An equal degree of variance also occurs for »Non-professional services«. Refer to the statement on relevant growth sectors in this chapter.

increased importance attached to this item, a more detailed evaluation of the qualitative responses presents a more differentiated picture. Some of the responses indicate that, although there is a need for action, this is more the responsibility of the service industry than that of the research community. Others, on the contrary, believe this would be a relevant area of research. However, the interviewees believe that it would only be sensible to carry out further activities in this area if progress were also made in the realm of theories and models. If such new models and theories are not forthcoming, there is believed to be a danger that standardisations may be oriented towards the realities governing the production of goods and would fail to do justice to the specific characteristics of services. The aim must be to understand the logic of services in general as well as in specific cases, from the gastronomy services provided by McDonalds through to the educational and research services provided by an university. Many experts also believe that more needs to be known about where specifications and standardisation would be useful and where not. One of the key questions in this area is »Does standardization make customers and employees any happier?«

The most succinct responses suggested that supply-driven standardization, i.e. standardization initiated exclusively by service companies, would be a step in the wrong direction and would fail to reflect either the realities or needs of the service

world. On the contrary, the future of successful service providers is deemed to lie in personalization and »customisation« rather than in individually-tailored customer solutions. For this reason, respondents believe that the time is ripe for more customer-centred research efforts as part of the drive towards achieving increasingly demand-driven service offerings, particular in the overall field of e-services.

The general tenor of the qualitative responses regarding basic research issues reveals both an awareness of the need for more research as well as a considerable air of uncertainty as far as the direction, feasibility and benefits of basic service research. Responses are coloured simultaneously by both a degree of resignation and scientific curiosity. This resignation can be explained by the heterogeneity and complexity of services as a research object and the concomitant problems of adequately expressing this diversity in theoretical terms. However, resignation is also counterbalanced by the unmistakable scientific appeal exercised by the gradual emergence of service research as an increasingly autonomous and distinct academic discipline. It would be fair to assume that the perceived need for the formation of autonomous, basic and meta theory from an academic and research-oriented standpoint is all the greater the more that research issues relating to the broad field of services emerge from the shadow of established business management sub-disciplines

such as marketing. In fact, a large number of the responses provided by experts stress that the ongoing development of this area of research depends in particular on integrated theories and models capable of encompassing and describing the basic »nature« rather than just particular aspects of services.

Applied research topics and mega trends

The questions asked with regard to applied research topics focused on the status of research and future research needs in terms of service innovation, benchmarking and assessment as well as management issues such as marketing, operations management and human resources. With regard to mega trends, the focus was on the internationalisation of the service economy, rationalization strategies in the service economy, and the quality of service work.

In the view of the experts the greatest need for applied research and research into mega trends will be in the areas »service innovation«, »internationalisation of the service economy« and »service management«.

The detailed responses reveal that in the field of »service innovation« in particular, research will (or should) focus on the process of developing new services in the sense of service engineering and service design. Here, too, the experts clearly

expressed the view that it would be desirable if future research activities were to take better account of the specific characteristics of services: »What we need is the development of a new field – service engineering – that will parallel industrial engineering in manufacturing. Industrial engineering as currently practised in services doesn't adequately address the psychological side of service, nor draw upon the extensive body of literature that exists in the behavioural sciences« (Richard Chase). In the field of »service management« there is a perceived need for more research relating in particular to aspects of human resource management and work organisation. In contrast, the state of the art in marketing is already regarded as extraordinarily advanced. Finally, with regard to the »internationalisation of the service economy« the experts believe more research is required in order to meet the need for more knowledge about cultural factors affecting service supply and demand and with regard to expectations and perceptions of service quality.

As far as the need for future research is concerned, the interviewees believe that – alongside the three favourites referred to above – all applied research topics and mega trends are assuming growing significance. The following aspects in particular should be emphasised: More research needs to be undertaken on »service excellence« in terms of the high quality of the processes involved in both

service performance and service products. This is closely linked with the need to development »performance management systems«. In the context of such systems special significance attaches to the adequate measurement and evaluation of service-specific quality and performance parameters.

A further area of discussion – particularly in the USA – is the sub-field of service quality. While the exceptionally broad discussion engaged in to date⁷ has mainly focused on the measurement of quality, experts now believe that this perspective needs to be extended in order to more easily identify the relationship between service quality and profitability, as well as between market share and customer retention. Research into the quality of service employment and work is also regarded as of equally enhanced significance. In this case a clear country bias is apparent. While experts in Europe and in the Asian-Pacific region (and particularly in Australia) are clearly aware of past research deficits and thus identify an urgent or very urgent need for research into this sub-topic, the quality of service employment and work elicits much less research interest in the USA.

Relevant growth sectors

The surveyed fields included business services, education services, financial services, information, media and telecommunications services, non-professional

services, public services, industrial services, and social and health services.

The survey responses to selected growth sectors reveal that most experts believe that there is a clear increase in the need for research in the three fields of »business services«, »information services« and »industrial services«.

Responses generally tally to the extent that »B2B« services – in other words services provided by businesses for other businesses – are regarded as representing the most growth intensive field of service with the most relevance for the future. This is also associated with an urgent need for more research despite the acknowledged high level of knowledge already available in this area. The challenge now is to exploit the results of appropriate research activities to support higher-quality and more productive service provision taking particular account of the deployment of technology. Future research should, in the view of experts, also concentrate on the growth sector of services associated with the production of goods. Such research should in particular shed light on the process of change in which tertiarization evolves as companies shift from the (predominant) production of goods to the (predominant) provision of services, how these two perceptions differ, and in what way this process of

7 Cf. amongst others Grove, Fisk and John (2002): *The Future of Services Marketing, Forecasts from Ten Services Experts.*

change can be successfully supported. Respondents also believe that research should be invested in the increasing interpenetration and interaction between service and goods production.

The survey reveals that there is not only a perceived need for more research in these three front running topics but also in all other growth sectors – with the exception of financial services where a great deal of research has already been undertaken and where experts believe there will be less need for research in the future⁸. Specifically interesting aspects emphasized include: Research into service orientation and digitisation in the field of public services (i.e. e-government), a hot topic in the USA particularly; research into the quality aspects of the provision of education and health and social services. Special account needs to be taken of both the individual aspects of customers' perceptions of service quality and the technological aspects or – in the field of education services – the quality of service content in those areas in which this cannot be competently assessed by individual customers. Many experts would welcome more research work geared to the sustained measurement of outcomes to complement and extend current modes of output measurement.

Finally, the results on non-professional services in the relevant growth sectors are particularly striking. It is important, however, to preface these observations with a caveat on the translation and inter-

pretation problems associated with this term. In the German-speaking world non-professional services – at least as we understand them – refer to services provided by skilled workers. Analogous to trade activities performed by skilled industrial workers, this refers to activities in the service economy which may be regarded as constituting skilled service provision and which thus encompass occupations pursued by those with a non-university education. Most of our Anglo-American interview partners tended to associate the admittedly clumsy translation »non-professional services« with the low-qualified area of unskilled or semi-skilled »ancillary service workers«. It is also difficult to reach a common international understanding of this indubitably relevant aspect of work in the service economy owing to the fact that the dual professional training system which prevails in Germany engenders a degree of training formalisation and quality in the non-university sector which is not (yet) to be found in other countries.

Fortunately, it was possible to clarify these communication difficulties in face-to-face exchanges during the interviews them-

8 The perceived relevance of research in the field of financial services in Germany is quite different however. Key terms in this area include, for example, innovation strategies, the metamorphosis of the branch system, and employment alternatives (cf. Bullinger et al. 2002: IT-Szenarien Finanzdienstleister 2002plus).

selves. The statements provided by the experts generated the following interesting results. While there is a broad array of differing views with regard to the need for future research in the field of non-professionalised services, this area nonetheless appears to be growing in significance. There is a clear country bias. While this area of research is regarded as of minor relevance by most respondents in the USA, experts in Europe and the Asian-Pacific region identify an urgent or very urgent need for research. This overall picture also corresponds with the assessment – referred to above – of the relevance of research into the quality of service employment and work, a field of research which is also regarded as less interesting by experts in the USA than by researchers based in Europe and Australia.

In summary, the overall quantitative values and qualitative responses exemplify that the themes around which the survey was organised clearly elicited significant resonance among international experts from a wide range of countries and fields of research. Pioneering new trends or entirely novel topics were not identified during the interviews performed in the framework of this appraisal. It may therefore, with cautious optimism, be possible to deduce that the fundamental direction and current approaches adopted by service research in Germany do, in general, reflect the international state of the art. Researchers in Germany are clearly able to respond to international activities and to use these to define the

direction of their own activities. In contrast, exporting the successes and results of service research performed in Germany – and thus promoting the virtues of the country as a research location – has met with very little success.

It also became apparent during interviews that the actual state of knowledge in the relevant sub-disciplines and sub-topics is in most cases sparser than in the USA in particular, but also in comparison with northern European countries. Not least owing to its thin presence on the ground at international conferences and its lack of integration in informal, international networks, Germany is regarded by the respondents as a country which – in terms of both service practice and service research – is between 5 and 10 years behind the times.

This perception of German backwardness is by no means only due to the fact that a commitment to service research has only become apparent in Germany very recently and has, to date, been considerably less intensive than in the USA and northern European countries. It is also important not to underestimate the handicap for Germany's standing as a base for business activity and research represented by the fact that – as suggested above – the research work on the service economy performed to date and currently being undertaken in Germany is all but unknown internationally. This is unfortunately also the case in areas in which the exceptional competence of

German research has been demonstrated, such as in the field of service engineering and service design, in the fields of work organisation, management and tertiarization, or as shown by its cross-sector, content-based non-profit platform www.dl2100.de. This is all the more regrettable bearing in mind that, as many of the intensive interviews revealed, serious consideration is currently being given to the future direction of research efforts in important sub-disciplines of service research. In this context an increasingly multidisciplinary and international orientation – both tendencies which are reviewed in brief in the following sections – have an important role to play. The time would therefore appear to be ripe for the research location Germany to assert itself in the international debate.

3.2 The changing nature of service research

In addition to the qualitative responses relating to central topics of service research dealt with in the previous section, many of the expert interviews also encompassed discussion of broader aspects of the academic perception of »services« as a research object. During these discussions it became clear that the international appraisal of the service research state of the art presented here coincides with a phase of shifting self-perception and (re)orientation on the part

of the main actors in the central sub-disciplines of service research, and the most interesting of these trends are outlined in the following section.

3.2.1 Service research – paving the way for a paradigm shift?

Is the persistently dominant mindset in the academic world which continues to regard economic activity chiefly in terms of »manufacturing«, i.e., the production of industrial goods, and thus perceives research activity as coupled to this paradigm, still adequate in today's world? Surely the time has come – and particularly for those disciplines which take an ever-broadening approach to service research which goes beyond the latter's sub-disciplinary aspects – to seriously question our understanding of what we mean when we talk about »economic activity«? Have we not reached a stage at which academic efforts need to be concentrated on developing and establishing new conceptual and procedural assumptions for the analysis of the economy and society as a whole which reflect the current economic weight and the future potential of services? These questions address a central aspect of the current discussion of service research in the countries surveyed.

A significant number of experts believe that it is imperative that work begin immediately on the continuing devel-

opment of the theoretical underpinning and foundations of »services« as a research object. The key challenge in generating a new pattern of thought which focuses squarely on services is not to make do with a negative definition which merely distinguishes services from goods production. On the contrary, the decisive task must be to identify the quintessential nature of services, to »understand the logic of services« both generally and in specific fields. In order to achieve this, theoretical and empirical research work is required which provides descriptions of a service perspective which are backed up by real-life examples.

Researchers in the USA, in particular, are currently engaged in theoretical and conceptual work which represents a departure from previous assumptions – firstly, by the IHIP model (**I**ntangibility, **H**eterogeneity, **I**nseparability, **P**erishability⁹) and, secondly, by calls for the critical scrutiny – or more radically in some cases, the complete rejection – of the previously widely accepted dichotomy of services and goods. This dichotomous view of economic activity in terms of the production of goods and services should, it is argued, be replaced by a holistic perspective and integrative theories and models in which – in the most extreme view – services rather than goods are regarded as paramount and thus of prime significance.

However, what a future holistic »service perspective« of this sort might look like is

only now beginning to take on elementary shape in current discussion. In terms of a burgeoning theoretical description, a number of different views are becoming apparent. Some argue that services should be regarded as an equally-valid »element of business« in the context of economic activity and not, as previously, as a separate and in most cases neglected category. This point of view asserts that whatever is being offered, it should be regarded as a combination of »things« and »activities« or as a »totality of intangibles and tangibles«. The core idea here is the creation of a »holistic consumption experience«.

Other experts take a more radical view and emphasize that a service perspective is contingent on a new perception of economic activity itself. One aspect of this would be to regard the customer rather than the product as the starting point. The aim, it is argued, must be to see everything from a service angle and to focus on various forms of relationship. »It's all a relationship game«. Attention should not only be paid to the offering itself, but also to the structures, processes, resources, partners, etc. involved in delivering it.

There is broad consensus that »human aspects« will play a central role in the creation of new, service-oriented

9 Cf. amongst others Grove, Fisk and John (2002): *The Future of Services Marketing, Forecasts from Ten Services Experts*.

patterns of thought. Services consist of »people work« in which social-interactive components are of considerably greater importance than in the production of goods. Special attention must therefore be given to people as customers and employees in the service economy – as central business »assets«.

Summing up, it is clear that the theoretical underpinning of »services« as a research object is currently a high priority topic in current debate. One of the most eminent authorities in the field regards the apparent deficit in terms of a common theoretical understanding and a lack of fundamental models and systems as one of the key problems confronting the development and management of services. Most observers identify the challenge as accelerating the creation of generally applicable theory relating to both generic aspects of services and – given the breadth and heterogeneity of the field – of sub-theories and concepts applicable to both individual service sectors and aspects of these sectors. Intensive exchange – including at the international level – would be welcomed as a positive step towards the creation of a new service paradigm. In this context it would be interesting if the ideas, insights and experiences regarding the creation of a service perspective currently circulating in various research communities were, for example, to be presented, described in theoretical terms and illustrated with concrete examples from

the service economy at a specialist conference.

However, rethinking the essence of what constitutes economic activity will not take place overnight – on the contrary, this process in turn can only take place as part of long-term perspective which also supersedes the current persistence of a (sub)disciplinary pigeon-holing attitude. The most succinct responses suggest that, in contrast to work focusing on the production of goods, research and development work in the field of services will have to »accept the fact that we don't have so much control over it, at least from a scientific point of view«. Particularly with regard to human, social-interactive aspects – the importance of which should not be underestimated in the service economy – precise rules and parameters are unlikely ever to emerge and service research will always retain an element of unpredictability.

Whether and to what extent those involved in service research will manage to bring about a paradigm shift in terms of the way we regard economic activity or will be able to define the essence of the service research endeavour in more precise terms than they can today will become apparent in the years ahead. However, we may perhaps take comfort in the fact that the key actors are convinced of the major academic and practical benefits offered by such endeavours and that those involved are

evidently keen to undertake further scientific investigations in this area.

3.2.2

Service research – on the threshold to a multidisciplinary approach?

The international survey revealed that service research today has (still) not managed to establish itself as an autonomous academic discipline confident of its own institutional legitimacy as is the case, for example, with engineering or economic science. Fragmentation is a central feature of research activities in the field of services. Service research activities are often carried out in isolation from one another in the context of many other disciplines and sub-disciplines, and bearing this in mind a multidisciplinary approach promises to become a central factor in the success of research in this field fulfilling a dual function. Firstly, the creation of conscious links between research in various (sub)disciplines may help to reach a »critical mass« on the academic agenda which the fragmented approach adopted to date has not been able to achieve, or at least not visibly. Secondly, given the relevance – demonstrated in the previous section – accruing from the formation of meta theory as a common point of reference for future research in various (sub)disciplines, and the creation of a new service perspective, multidisciplinary research endeavours would be warmly welcomed by many of the interviewed experts.

It is important to emphasise both the broadly-shared view that it will no longer be possible to pack the knowledge of the future into traditionally neat »boxes« and the conviction that it will only be possible to generate robust ideas in the future in the context of an international exchange of research work. In contrast to current scientific practice – particularly in the USA, but also in Europe – research needs to be organised around the object of research – in this case services – and not within the bounds of established academic tradition. In the future it will be important to become familiar with, adapt and use ideas from other fields in order to foster research and development progress. The aim must be to go a step beyond the simple exchange of ideas and thoughts and to develop cross-functional, concrete collaboration between researchers and research groups from various countries. Disciplines frequently cited as key (sub)disciplines in the drive for greater interdisciplinary collaboration include marketing, operations management and human resource management, as well as engineering and computer science. This perspective could, however, be extended even further and, in this sense, one expert commented that »every area of human knowledge has the potential to give insight into services«.

In the view of many experts, an important contribution towards promoting multidisciplinary activities in service research could be made by research promotion policies. The first steps in this direction appear to

be being made in the USA in the form of the activities of the National Science Foundation involving initial projects of priority and a new programme of service research, both of which incorporate an explicitly multidisciplinary perspective. («Exploratory Research on Engineering the Service Sector» and »Service Enterprise Engineering«¹⁰). In Sweden political decision-makers now recognise the relevance of service research but are still unsure about the best way of organising the support of such work. The most succinct response envisaged the establishment of an international sponsoring body which, in particular, would support work on the generic aspects of service research.

Summing up it is clear that – owing to its multi-faceted nature – the field of service research is perhaps more than many other areas of academic endeavour not only a particularly suitable candidate for multidisciplinary strategies, it is in fact practically dependent upon such approaches if it is to continue to generate new insights. Researchers and those responsible for supporting institutional research both have a role to play in working towards greater multidisciplinary approaches and for ensuring that the recognition of the need for and benefits of cooperative research translates into concrete joint transfer projects and cross-functional transfers.

10 The SEE program is a new venture intended to focus researcher interest on the many opportunities for improving quality and productivity in service sector enterprises (...) the SEE vision is that the potential of engineering tools and problem solving methods to contribute in the service sector, including many originally developed for manufacturing enterprises, is far from being fully realized. The transfer of established approaches is likely to require novel reformulation, and wholly new modeling and analysis techniques are expected to evolve, thus stimulating both innovations in the service sector and research insights with impact across a broader domain. (<http://www.eng.nsf.gov/dmii/Message/EDS/SEE/see.htm>)

4

The profile of service research in international journals, conferences and internet communities

Thomas Meiren, Rainer Nägele

In addition to expert interviews, key elements of the study also included an analysis of international journals, international conferences and internet communities. The aim of this extended analysis was to supplement the qualitative expert interviews with additional quantitative components and thus to shed further light on current research topics and trends.

Publications in prestigious international journals play an important role as a spur to research activities. These journals not only provide a relatively broad readership within the scientific community, their review processes also guarantee that published articles comply with specific quality criteria. However, journals are of limited value as trend barometers. This is not only due to the delays associated with journals' review procedures – in most journals it often takes up to a year before an article finally makes its way into print – but also to the filtering of submitted papers. Filtering can, for example, result in frequent rejections of articles on »non-mainstream« subjects, particularly if such contributions are written by less well-established authors.

International specialist conferences are probably more suitable for gauging short-term trends. Events organised around a relatively broad and comprehensive conference programme in particular offer numerous opportunities for presenting and discussing new research topics and results. However, the quality of contribu-

tions and presentations almost inevitably varies to a large extent. Many conference events have also been launched in the field of service research in recent years and these events have developed into important platforms for the exchange of information and experience within the scientific community.

A further key element of the analysis was a study of the role of the internet which also offers increasing opportunities for online collaboration in the realm of research. These range from the simple provision of information, for example on WWW homepages or via electronic newsletters, through to discussion of research issues (e.g. with the aid of electronic forums) and support for cooperation in distributed research projects. We were interested to find out how prevalent internet-based communities are, and how important they are thought to be, in the field of service research.

The key results of the study of academic journals, conferences and internet communities are presented in the following section.

4.1 Analysis of international academic journals

A study of the market for international periodicals spotlighting service research topics reveals that there are now a large number of academic journals being pub-

lished many of which, however, concentrate on relatively narrowly-defined areas of service research. The expert interviews showed that the most highly-regarded publications in the field of service research are the »Journal of Service Research« and the »International Journal of Service Industry Management«. Other publications regarded as important in the field include the »Journal of Services Marketing«, the »Harvard Business Review« and »The Service Industries Journal« (refer to table).

Table: Ratings given by 25 interviewed experts for the most important academic journals

1. Journal of Service Research	20
2. International Journal of Service Industry Management	17
3. Journal of Services Marketing	8
4. Harvard Business Review	7
5. The Service Industries Journal	6

This study focused on these publications as well as the »International Journal of Services, Technology and Management«, the »Sloan Management Review« and the »Journal of Business Research« which were also referred to, albeit with lower ratings, in the expert interviews. The study looked at all the issues of these publications in the last three years.

The study focused on the following issues:

- How important are the topics covered by this study in the context of international academic publications?
- What have been the main topics covered in these publications during the previous three years?
- What nationality are the authors of the articles studied? From what countries do the majority of articles originate and how many come from Germany?
- Is there any common ground between the outcomes of the expert interviews and the quantitative evaluation of academic journals?

In order to answer these questions, a total of 560 articles were studied drawing on the abstracts and information about authors freely available on the internet. This enabled authors to be assigned to their countries of origin and the contents of articles to be categorised according to the specific topic areas defined in the context of the research design. This categorisation is the only qualitative component of this analysis. All other evaluations are purely quantitative in character as abstracts alone provide an insufficient basis for a more extensive analysis.

Topic-based analysis

After assigning each article to a specific topic area on the basis of the abstract, it was then possible to carry out a subsequent analysis which provided answers to the questions posed above.

- *Basic service research topics:*
Authors showed relatively little interest in basic research topics. In total, a mere 6.8 percent of all the articles studied fell into this category. It is interesting to note that more than half of these articles related to the formation of models and systems for services.
- *Applied research topics:*
50.5 percent of all categorised articles focused on applied research topics making this the most important topic to be dealt with in publications in the last three years. This outcome is even more pronounced if the focus is narrowed down to journals which concentrate exclusively on service issues. More than two thirds of all publications in these journals were assigned to this topic category.
- *Mega trends:*
In total 11.1 percent of all the articles studied fell into this category. In this topic category, the internationalisation of service research is the most important issue, followed by the quality of service work.
- *Growth sectors:*
31.6 percent of all published articles were primarily categorised as dealing with growth sectors. In this category

every fourth publication covered the topic of financial services. Moreover, there has been a significant number of publications on public services, as well as media and telecommunications services.

Main topics covered in the analysed journals

Table: Distribution of the 5 main topics

1. Customer relationship management	9.0 %
2. Quality management	8.7 %
3. Marketing	8.4 %
4. Financial services	6.6 %
5. Internationalisation of the service economy	5.6 %

As shown by the table, the dominating themes dealt with by the overwhelming majority of articles are customer relationship management, quality management and marketing. A disproportionately large number of articles also cover the internationalisation of the service economy and financial services and this proportion increased over the period of the study. However, the observation period of three years is too short to be able to determine whether this development is significant or merely a short-term trend.

The five topics shown in the table above dominate journal content and account for almost 40 percent of all publications. The

topics customer relationship management and quality management are particularly prominent features of five of the eight journals studied. This observation suggests that, regardless of the individual leanings of these journals in terms of content, customer relationship management and quality management were the principle topics of interest over the period of the study. Publications on the topics of marketing, financial services and the internationalisation of the service economy are rather more dependent on the key content interests of individual journals and were among the main topics covered in three of the eight journals studied.

The origin of publications and the international position of German publications

As far as the origin of articles is concerned, authors from the USA are the most frequently published. Significantly more than one third of all the articles studied (38.7 percent) were from the USA. The only other significant nationality amongst authors is those from the United Kingdom who account for almost one quarter of all articles (24.3 percent). Taking account of publications from Australia (5.6 percent), Canada (2.7 percent) and New Zealand (1.8 percent) it becomes apparent that almost three quarters of all published articles originate from the English-speaking world. The remaining articles originate from a large number of other

countries. Articles written by German authors account for a mere 1.8 percent (10 articles). Narrowing the focus to Europe, Germany submits fewer articles than the United Kingdom, the Netherlands and France (each of which accounts for 4.0 percent of the total), Sweden and Spain (2.2 percent each). Evidently publications from Germany and from German authors are underrepresented both internationally and in a European context.

4.2 Analysis of international conferences

A number of conferences on service research have been established by the scientific community in recent years. These include purely service-related events such as conferences which concentrate exclusively on service research topics as well as events which, in general, have a non-service orientation but which nonetheless include a significant share of topics relating to service research in their programmes.

In order to determine which of the many conferences on offer have a significant influence on service research, the interviewed experts were also asked which they believed to be the most important events. The response was fairly conclusive: The »International Conference on Frontiers in Services« was cited 18 times and the »International Research Conference on Services Quality QUIS« 15 times by the 25 experts. The »Inter-

national Research Seminar in Service Management« which is also known as the »La Londe Conference« (after the town in France where it is held) was also referred to 9 times (refer to table).

Table: Ratings given by 25 interviewed experts for the most important conferences

1. International Conference on Frontiers in Services	18
2. International Research Conference on Service Quality QUIS	15
3. International Research Seminar in Service Management	9
4. SERVSIG Services Research Conference	4
5. Annual Meeting of the Decision Sciences Institute	3

Bearing in mind the objective of this study, we now examined the topics and trends represented at these international service conferences and from which countries the most important contributions originated. Drawing on the results of the expert interviews, the following evaluation concentrates primarily on the Frontiers in Services and QUIS conferences.

Topic-based evaluation

The study of the topics dealt with at the conferences was based on the analysis model presented above. The study encompassed conference contributions within the proceedings of the Frontiers in Services 2002, which took place between

27 and 29 June 2002 in Maastricht, and the Conference on Service Quality QUIS 2002, held from 11 to 14 June 2002 in Victoria, Canada. The most important study results are summarised in the following¹:

- Basic service research topics: Very few contributions to either conference focused on basic research topics. 3 of a total of 96 contributions to the Frontiers in Services conference and 2 of a total of 44 contributions to the QUIS were assigned to this category. Nonetheless, basic research topics were a key concern during the Frontiers in Services final plenum discussion in which the future direction of service research was subject to intensive debate and, in particular, current definitions of services were radically questioned.
- Applied research topics: The overwhelming majority of contributions were assigned to this topic category including 87.5 percent (84 of a total of 96) of contributions to the Frontiers in Services conference and 75.0 percent (33 of 44) of contributions to the QUIS. Both conferences were dominated by contributions to service marketing (accounting for

1 Multiple assignments to topics were allowed for the categorisation of contributions. A contribution which, for example, dealt with the development of new financial services was assigned to both »service innovations« and the growth sector »financial services«.

around two thirds of all contributions to Frontiers in Services and around half of those to QUIS) and service quality.

- Mega trends:
A similar number of contributions in this category were made to both conferences: 14.6 percent (14 of a total of 96) of presentations to Frontiers in Services and 15.9 percent (7 of a total of 44) of those to QUIS. Neither of these conferences appeared to focus on a particular key topic in this category.
- Growth sectors:
The growth sectors of relevance to this the study were tackled in 17.7 percent (17 of a total of 96) of contributions to Frontiers in Services. 36.4 percent (16 of a total of 44) contributions to the QUIS fell in this category. Most contributions concentrated on financial services (3 at Frontiers in Services, 6 at QUIS) while significantly fewer presentations were given on any of the other growth sectors defined in this study.

Overall, the evaluation of conference contributions generated an essentially similar distribution as that shown by the analysis of articles in academic journals. This would also appear to apply to past conferences as demonstrated at least by an analysis of all 638 contributions to the first 10 Frontiers in Services conferences (refer to table).

Table: 10 Main topics of conference contributions to Frontiers in Services 1992–2001²

1. Service	482
2. Customer	239
3. Satisfaction	131
4. Quality	120
5. Services	119
6. Relationships	70
7. Measurement	38
8. Loyalty	30
9. Employee	28
10. Encounter	28

Even though Fisk, Dorsch and Grove use a different categorisation system in their study, it is nonetheless apparent that discussion in the international scientific community is dominated by contributions on various aspects of service marketing and service quality. In this context it is interesting to note that Fisk, Dorsch and Grove only assign 9 contributions to the last 10 conferences to the topic category »New service« while, in contrast, 8 contributions to this year's conference alone dealt with this subject. In other words, in relative terms this is the topic area which has grown most rapidly in importance at the Frontiers in Services conference.

2 Fisk, Dorsch and Grove (2002): A Retrospective on the Frontiers in Services Conference: Ten Years of Contribution to Service Knowledge, presentation given at the 11th international Frontiers in Services conference in Maastricht, 27–29 June 2002.

Evaluation in terms of the origin of authors

In addition to a topic-based evaluation, the analysis of the Frontiers in Services 2002 and the QUIS 2002 was supplemented by an evaluation of contributors' nationalities whereby contributions were categorized according to authors' countries of origin. The results are shown in the following table.

Table: 5 Main countries of origin of authors at the Frontiers in Services 2002 and the QUIS 2002

Frontiers in Services 2002 ³	QUIS 2002 ⁴
1. USA (28)	USA (11)
2. The Netherlands (21)	Sweden (9)
3. United Kingdom (13)	United Kingdom (6)
4. Australia (8)	Finland (5)
5. Germany (7)	Australia, Germany (4 each)

Most contributions to both conferences were made by authors from the USA. American dominance – 28 of 96 contributions (29.2 percent) to the Frontiers in Services and 11 of 44 contributions (25.0 percent) to the QUIS – was not quite

3 All 96 conference contributions within the proceedings were evaluated.

4 All 44 conference contributions within the proceedings were evaluated.

as clear cut as that emerging from the analysis of the academic journals. The table above also reveals that among European countries, the United Kingdom, Sweden and the Netherlands are well positioned, while German authors ranked 5th in this evaluation with 7 and 4 contributions respectively.

It is also apparent that most of the contributions were not only written collaboratively but, particularly in the case of the Frontiers in Services conference, a relatively large number of contributions (around 20 percent) were produced by authors from several different countries which suggests a high level of international networking within the service research community.

An analysis of the research establishments taking part at these conferences also demonstrates that, from an academic point of view, those attending the Frontiers in Services and QUIS conferences look very much like a »who's who« of international service research. A comparison, for example, of the research establishments regarded as the most important by the interviewed experts (refer to Chapter 3) and those organisations present at both conferences shows that these are largely one and the same entities.

Finally, it is noteworthy that very few contributions – 3 of a total of 96 (or 3.1 percent) of contributions to the Frontiers in Services and 5 of 44 (or 11.4 percent) of those to the QUIS –

were made to either conference by service practitioners. A glance at those taking part in both conferences does however reveal that they are by no means purely academic events. At this year's *Frontiers in Services* and *QUIS* between 20 and 25 percent of all those attending the conferences were from service companies, which suggests that there is a strong level of interest in the outcomes of service research among those actually providing services in practice.

With regard to the analysis of the origin of authors, it is worth taking a second look at the situation in the past. Fisk, Dosch and Grove also analysed the countries from which authors contributing to the *Frontiers in Services* conferences came from (refer to table).

Table: Origins of authors at the *Frontiers in Services* 1992–2001⁵

1. USA	788
2. Canada	60
3. Norway	48
4. United Kingdom	43
5. Australia	42
6. Sweden	30
7. The Netherlands	26
8. New Zealand	25
9. Finland	22
10. Belgium	16

In total, 638 contributions were made by 1,228 authors from 36 different countries to the first 10 *Frontiers in Services* conferences. This again demonstrates that the

event has to date been dominated by a mere handful of countries. 1,100 (of a total of 1,228) authors, for example, are from the 10 most strongly represented nations. German authors have not played a particularly significant role in the past; on the contrary, well under one percent of contributions originate from German authors⁶.

4.3 The opportunities and limits of internet-based research communities

As well as analysing international academic journals and conferences, the study presented here also examined the importance of internet-based communities in the field of service research. The point of departure for this examination was again the results of the expert interviews. The most frequent internet presentations referred to were the websites of the American Marketing Association AMA

5 Fisk, Dorsch and Grove (2002): A Retrospective on the *Frontiers in Services* Conference: Ten Years of Contribution to Service Knowledge, presentation given at the 11th International *Frontiers in Services* conference in Maastricht, 27–29 June 2002.

6 The analysis of the *Frontiers in Services* 2002 and the *QUIS* 2002 conferences does however suggest that this situation is beginning to change. Nonetheless, this development was certainly reinforced by the fact that the 2002 conference was held in Maastricht and thus in the immediate vicinity of Germany.

(<http://www.marketingpower.com>), the American Foundation of Services Management International AFSMI (<http://www.afsmi.com>) and SERVSIG (<http://www.servsig.org>). Reference was also made to »mailing lists« of which the most important are thought to be the »elmar list« (elmar@ama.org) run by the AMA and the mailing list organised by the Center for Services Leadership at the Arizona State University (<http://www.cob.asu.edu/csl>).

However, it was striking that the range of internet communities referred to by the experts was much broader than, for example, in the case of international academic journals and conferences. SERVSIG, for example, was the most frequently cited internet platform despite only being referred to by 7 of the 25 interviewed experts. Some of the interviewees were in fact unable to cite any relevant internet platforms in the field of service research. When asked why this was so, experts usually replied that there was either no internet communities in their respective area of research or that the benefits offered by existing platforms are simply too modest. Experts also pointed out that while internet communities represent a decidedly useful but by no means decisive collaboration tool in the research field: »Internet communities are helpful but not essential«.

Overall it was possible, however, to identify a number of relevant internet addresses on the basis of the expert interviews. It is however important at this stage to stress that many of these internet sites serve a purely presentation role and do not offer any real community functionality such as the provision of information (e.g. via electronic newsletters) and, above all, the proactive involvement of community members (e.g. discussion rooms, creation and updating of own information content). Nevertheless, the following list provides an overview of the internet sides recurrently referred to by the interviewees:

- <http://www.marketingpower.com> (American Marketing Association AMA)
- <http://www.afsmi.com> (Association for Services Management International AFSMI)
- <http://www.servsig.org> (SERVSIG/AMA)
- <http://sampson.byu.edu/soma> (Service Operations Management Association SOMA)
- <http://www.reser.net> (Réseau Européen Services RESER)
- <http://www.sitrends.org> (Mark Twain Institute)
- <http://www.usci.org> (Coalition of Service Industries CSI)
- <http://www.esf.be> (European Service Forum ESF)

Only German-speaking interviewees were aware of the German internet communities »DL2100«⁷ (<http://www.dl2100.de>) and »Competence-Site« (<http://www.competence-site.de/dienstleistung.nsf>).

An analysis of the internet sites referred to by the experts very quickly reveals that no global internet service research community geared towards supporting scientific collaboration as yet exists. While the platform of the American Marketing Association AMA in particular offers certain advanced community functions, this platform is not dedicated to research alone and focuses to a very large extent on the topic of marketing. It is also the case that the overwhelming majority of the internet sites referred to above concentrate strongly on specific target groups and content which, in principle, tends to make them relatively unsuitable as platforms which might support multidisciplinary collaboration in the field of service research.⁸

The immediate conclusion to be drawn from these observations is that it is obviously not possible to carry out a meaningful analysis of the internet presentations referred to by the experts with regard to the state-of-the-art of service research or trends in the field⁹. Nonetheless, it is important to remember that most of the interviewed experts make regular use of internet platforms – even if in most cases simply for information gathering purposes (in this

respect subscriptions to electronic newsletters and mailing lists appear to be particularly popular). Internet platforms clearly do not play a decisive role in tackling research tasks at the current time. While a number of the interviewed experts believe that there is considerable potential for the future, internet platforms will never act as a substitute for direct forms of communication which are especially important in the world of research.

4.4 Comparison with the results of the expert interviews

Many of the results of the expert interviews are also reflected in the analysis of international academic journals and conferences. Above all, statements regarding research intensity in particular topic areas are confirmed. While basic service research topics appear to be accorded a less important role than in the expert interviews, the dominance of applied research topics is unambiguously con-

7 Refer also to Chapter 3.1.1

8 These internet platforms are not linked to each other either which certainly makes it more difficult for non-members to find these websites.

9 This is all the more the case bearing in mind that, at the time the study was performed, a number of the internet presentations had obviously not been updated or maintained.

firmed. In particular international service research appears to be very strongly characterised by work on service marketing and service quality¹⁰. These results also dovetail with those for topics referred to in this study in the context of »mega trends«. In particular the trend towards an internationalisation of the service economy described by experts is confirmed by the results of the analysis. This field has only begun to take up more space in academic journals more recently and has grown steadily in importance over the last few years.

The analyses not only underline the assessments of experts in terms of the intensity of research in each of the defined topic areas, they also made it possible to quantify the German contribution to the journals and conferences studied. In a nutshell the results show that – in contrast to the USA or European countries such as the United Kingdom, Sweden and the Netherlands – Germany plays an insignificant role in this area. Even if it is true that the countries referred to can look back on a much longer »tradition of service research« than can Germany, nonetheless it is still difficult to

understand why Germany has such a low profile internationally – despite the quality of work produced – and why German researchers don't make more extensive use of the tools for exchanging knowledge which already exist. In this respect it is not surprising that – as the interviews revealed – experts are unaware of German research work and perceive Germany as a research backwater.

10 However it is important to qualify that neither of these research areas are defined in very clear terms and that they both tend to offer a relatively comprehensive perspective on services as a field of research.

5

Lessons to learn – the need for research and action

Walter Ganz, Thomas Meiren, Anne-Sophie Tombeil

Differentiated statements regarding the status and future of selected research fields were garnered from the interviews with international experts and opinion leaders. Six central fields of research and development emerged from the plethora of views expressed, and these are described in summarised form once again in the following (refer to figure).

The initiative for future research work to focus on the *basics of service research* in order to create a broader and more substantial theoretical and methodological basis for work in this area has, in particular, been seized by the sub-discipline of »service marketing«, which is regarded as one of the driving forces behind service research. In this framework it would

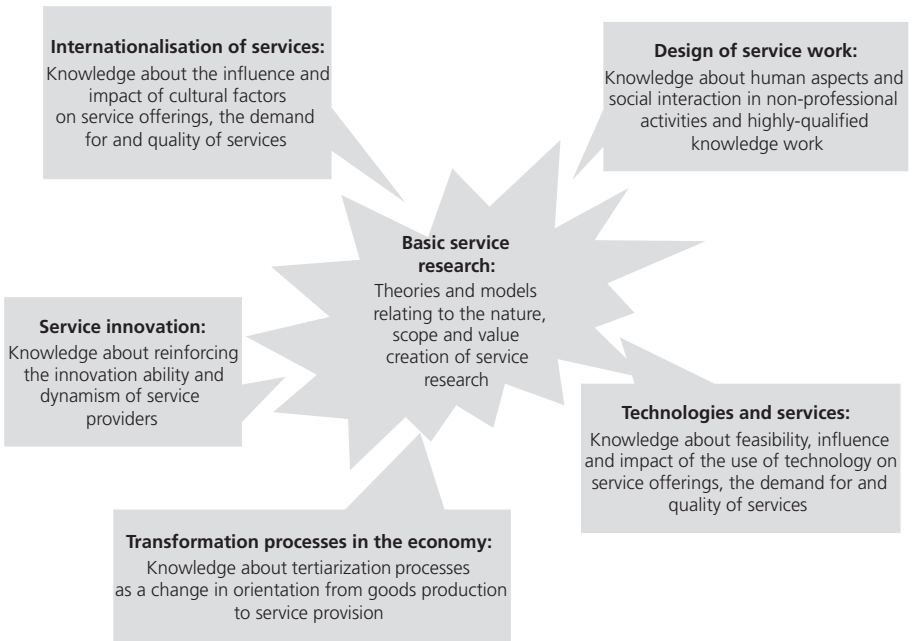


Figure: R & D needs as reflected in the assessments of international experts

appear appropriate to gear future research towards the three topic areas: the nature of services, the scope of services and services and value creation¹. There is broad consensus among the interviewed experts that the perceived urgent need for work on the theoretical and methodological foundations of service research will have to be accompanied by a more integrated attempt on the part of the relevant sub-disciplines – most of which have to date operated in strict academic seclusion from one another. The future of service research will certainly be bound up with a multidisciplinary, and potentially even with a transdisciplinary, approach to research. What is required is a complementary perspective of services as a research object which combines a generic discipline-independent definition with interdisciplinary solutions².

Almost all the experts identified a need for more research into the attractive *design of service work*. There is an intense awareness that, more than in the case of any activities in the manufacturing sector, service work is »people work«. This is combined with the insight that there is too little knowledge about the human aspects of both the provider and customer side of the service equation. Key concepts here include excessive or too few demands on employees, staff satisfaction and loyalty, subjective perceptions of quality and customer retention as well as the management of interactive company-employee-customer relation-

ships. This revaluation of the human aspects of service research is accompanied by a need for further research and development in the area of adequate »performance management systems«. The challenge is now to take account of the specific nature of services, particularly in the areas of productivity, quality and social interaction, and to map the service-specific components commensurately in systems for evaluating and measuring performance.

In the view of the experts, *technologies and services* represent a cross-sectional topic of enduring interest. Particular attention needs to be paid to information and communication technologies as well as to service automation technologies. A need for more research is also identified with regard, in particular, to the role of technology in the provision, support, brokerage and sale of services. Research into service excellence in settings heavily dependent on technological support and the creation of high levels of service quality via the deployment of technology are also regarded as particularly relevant.

Even though value creation and employment in the service sector are significantly higher in all the countries surveyed than in the primary and secondary

1 Cf. amongst others Grove, Fisk and John (2002): *The Future of Services Marketing, Forecasts from Ten Services Experts*.

2 Cf. Mittelstraß (1998): *Dritte Kultur? Kein Bedarf*, In: *Die Zeit*, No. 6.

sectors, the collective perception of »economic activity« or of »economy and society« is still largely shaped by familiar industrial models and images. Because these models and images seldom do justice to the requirements of service reality, many of those interviewed believe that research priority must be given to obtaining more knowledge about *transformation processes in the economy*. An important task will be to improve understanding both of the change which takes place when the primary activities of companies switch from the production of goods to the provision of services and of the relationships and increasing interaction between goods and services.

»How do new things enter the world?« – this is a question that is increasingly being asked in the service economy. *Service innovations* are likewise regarded by the interviewed experts as constituting the most important field of research for the future. However, to date this subject appears to have been driven by practical concerns. This is largely due – as a result of internationalisation and liberalisation, as well as the use of new technologies – to increasing competition on many service markets. The immediate consequence of this is that many service providers are aware of increasing innovation pressure, in other words there is a growing need for providers to differentiate themselves from competitors by means of new, innovative services and unique selling features. As a result of this need for concrete action in practice, service research is also increas-

ingly addressing various issues relating to service innovation. In particular, systems and processes are being examined and developed which will enable new services to be launched on markets efficiently and profitably and yet still meet customer and employee needs appropriately.

Last but not least the study reveals that the topic of *internationalisation of services* is regarded as being a key subject of research in the future. In view of the increasing international orientation of many service companies and the associated increase in international competition in the service markets, a need for further research can be identified in many areas. Particularly noteworthy examples are the socio-cultural factors affecting service offerings and service demand as well as studies of the resulting consequences for service markets, companies and employees.

Summing up this international study of service research, it would be fair to conclude that the USA in particular has achieved a significant lead ahead of Germany in many areas of activity. Nevertheless, despite its relative recent emergence in this country, service research in Germany has nothing to fear from international comparisons. Rather than following in the research footsteps of the Americans in some of their strongest fields of research, such as service marketing, it would perhaps be wiser to combine an increasingly international approach with greater emphasis

on our own domestic areas of research and to contribute the results of such work to international discussion in order to build a reputation for Germany as a country in which original research work is undertaken. One priority field in which Germany not only evinces strengths in relation to new service research but also has traditional research and development strengths is the interrelationship between technology development, management concepts and ergonomic work design.

The success of a more emphatically multi-disciplinary and internationally-oriented approach to service research is critically dependent on learning with and from each other without – as successful benchmarking has demonstrated time and again in the past – simply copying the work of others wholesale. In this context it is particularly important to take account of the cultural and institutional settings in various countries and regions of the world and, if we are to generate the knowledge we will need in the future, to recognize differing paths towards the development of a service economy.

6 Appendix

6.1 List of interviewed experts

Gabriel R. Bitran
Massachusetts Institute of Technology,
Sloan School of Management,
Massachusetts.

Richard B. Chase
University of Southern California,
Marshall School of Business, Los Angeles,
California.

Peter W. Daniels
University of Birmingham, School of
Geography and Environmental Sciences,
Birmingham.

Alison Dean
Monash University, Department of
Management, Faculty of Business and
Economics, Caulfield, Australia.

Bo Edvardsson
Karlstad University, Center for Service
Research, Karlstad, Sweden.

Raymond P. Fisk
University of New Orleans, Department of
Marketing, New Orleans.

Steve Frenkel
Australian Graduate School of
Management, Sydney, Australia.

Markus Groth
Australian Graduate School of
Management, Sydney, Australia.

Evert Gummesson
School of Business, Stockholm University,
Sweden.

Stephen Hurley
Information Technology Services
Marketing Association, Lexington,
Massachusetts.

Lester W. Johnson
Mt. Eliza Business School, Australia.

Robert Johnston
University of Warwick, Warwick Business
School, Coventry.

Kesh S. Narayanan und Roland L. Rardin
National Science Foundation, Arlington,
Virginia.

Michael C. Ottenbacher
University of Otago, Department of
Marketing, Dunedin, New Zealand.

Rohit Ramaswamy
Service Design Solutions Inc., Des Moines,
Iowa.

Javier Reynoso
Tecnologico de Monterrey, Graduate
School of Business Administration and
Leadership Service Management
Research & Education, Garza Garcia,
Mexico.

Roland Rust
David Bruce Smith Chair in Marketing,
Robert H. Smith School of Business,
University of Maryland.

Darshan Singh
SPRING, Singapore.

Maria Anne Skaates
Aarhus School of Business, Aarhus
Denmark.

Amrik Sohal
Monash University, Department of
Management, Faculty of Business and
Economics, Caulfield, Australia.

Stephen S. Tax und Mark Colgate
University of Victoria, Faculty of Business,
Victoria.

Steven E. Taylor
Illinois State University, College of
Business, Department of Marketing,
Bloomington-Normal, Illinois.

Sven Tuzovic
Universität Basel, Lehrstuhl für Marketing
und Unternehmensführung, Basel.

Jochen Wirtz
National University of Singapore,
Singapore.

6.2 Service research at the Fraunhofer Institute for Industrial Engineering

The Fraunhofer Institute for Industrial Engineering (in German: Fraunhofer-Institut für Arbeitswirtschaft und Organisation IAO) investigates topical issues relating to all aspects of technology

management. In particular, the Institute helps companies to identify the potentials of innovative organisation forms and personnel development concepts, as well as new information and communication technologies, and subsequently to tailor them to their individual needs and exploit them systematically.

A team of more than 240 staff – mainly engineers and information, economic and social scientists – develop scientifically-based solution concepts in line with market requirements in numerous research and consulting projects, and apply them professionally to the real business world. Their integrated view of people, technology and organisations ensures that account is also taken of the personal and social aspects of working life. Research and development projects are carried out in close co-operation with industrial and service enterprises, whereby the majority are directly commissioned. The Institute is additionally involved in research programmes of the European Union, the German Federal Ministry of Education and Research and »Deutsche Forschungsgemeinschaft DFG« (public funding organisation for academic research in Germany).

One central focus of the Fraunhofer Institute for Industrial Engineering's work is an investigation of »services« as a topic. The first major research projects, conducted back in the early nineties, concentrated on diverse aspects of service quality. The intensity of work in this field

was only significantly stepped up, however, in connection with the »Services for the 21st Century« initiative funded by the German Federal Ministry of Education and Research. This initiative, which kicked off in 1995 with a stocktaking phase coordinated by the Fraunhofer Institute for Industrial Engineering, provided a strong boost for the establishment of service research in Germany. More than 300 experts representing business, politics and academia participated in this assessment of the current situation, which was followed by a broad discussion to define those areas of Germany's service sector in which research and further action are required.

In the ensuing years, the German Federal Ministry of Education and Research launched a series of major initiative projects, referred to as »projects of priority«, focusing on particularly urgent research topics. In the meantime, Germany has evolved a special programme for service research, so that a large number of research projects now benefits from public funding. The latest outcomes of the debate can be monitored on the »DL2100« internet platform run by the Fraunhofer Institute for Industrial Engineering (www.dl2100.de). Over 2500 registered users keep themselves up to date here regarding the content and findings of some 200 current research projects relating to services.

Parallel to the growth in importance of service research in Germany, several

different approaches to service research have emerged at the Fraunhofer Institute for Industrial Engineering – a reflection of the Institute's multidisciplinary orientation. In order to facilitate a largely non-disciplinary classification, the Institute's service research can be broken down into normative, analytical and constructivist approaches as shown in the diagram below.

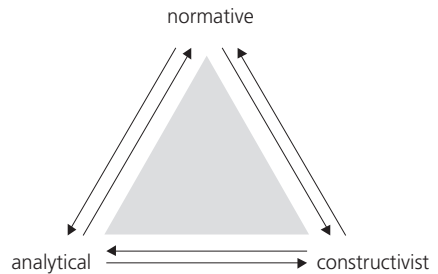


Figure: Approaches to service research at the Fraunhofer Institute for Industrial Engineering

The category of normative approaches above all embraces numerous studies in the field of service management, typically comprising the design and propagation of models with a powerful claim to universality. In contrast, the Institute's analytical approaches to service research lean more heavily on empirical findings as well as on knowledge and needs derived from measurements and evaluations of services and service systems. In particular, this category includes various works concerned with service assessment and benchmarking. The third category to emerge in

recent years – namely constructivist approaches – has inspired work on topics such as service engineering and service design. Rather than considering services as a kind of »black box«, these approaches attempt to develop a comprehensive understanding of service systems and then to infer starting points for designing them. A few of the Institute's current research activities are presented in the following with reference to the above diagram.

Service Competence

The world of services is characterised by increasing globalisation and mounting competitive pressures. These two challenges must be countered by enhancing service performance, in other words by ensuring an outstanding quality of service provision. Yet which competencies, which skills and which qualifications – both organisational and personal – are necessary in order to guarantee sustained service performance excellence over and over again? How must service organisations be structured and service work designed as a precondition of excellent services? The Fraunhofer Institute for Industrial Engineering is presently pursuing various approaches for service-oriented personnel and organisational development in an attempt to find answers to these questions.

Research and development activities begin by assuming that service performance excellence is manifested in a tension system formed by the three target dimensions: productivity, quality and innovativeness. Added to this – as an intervening variable, so to speak – is a social interaction component. The quality of social interaction – at the interfaces between customers and employees, between employees of different professions and between employees and executives – has a crucial influence on the excellence of service performance, which means that optimising its design plays a far more important role in the world of services than it does in the production of goods. In order to accommodate the above-mentioned target dimensions, service enterprises must above all avail of, or create, two elements of service competence: extremely flexible organisation and a human resource management policy that encourages creativity.

Challenged to react flexibly to ever more complex and rapidly changing customer requirements, today's service economy is already experiencing a daunting transformation of employment conditions and work forms. New solutions therefore have to be found for designing more flexible forms of employment and work, in order to establish a balance between the wants of customers and the ensuing interests of companies on the one hand and the demands of employees as well as, in particular, the social interaction processes in service settings on the other.

It is precisely because of this outstanding role of the human factor that service competence flexibility must be complemented by commensurate handling of human resources. Exploiting and encouraging employees' knowledge and creativity and promoting successful social interaction, both on the level of academic qualification profiles and in connection with skilled service provision by those with a non-university education, are evolving into critical competitive criteria. Creativity-conducive solutions thus need to be developed for designing service work organisation and personnel management.

The Fraunhofer Institute for Industrial Engineering is presently collaborating on various research and development projects to improve service competence with the aim of enhancing the productivity, quality and innovativeness of service work. The Institute has adopted an integrated view of organisation and personnel for this purpose. Concepts and instruments for integrated personnel and organisational development support companies in their efforts to build flexible structures which facilitate, encourage and demand personal and organisational change and advancement, and within which their employees' potentials can fully unfold.

Service Performance

Increasing competition, growing pressure to innovate and the extreme importance of quality and customer retention combined with the challenge of tapping productivity potentials have turned performance measurement and performance management – whereby both personal and organisational performances are subsumed under this heading – into topics of considerable academic and practical business relevance in the service economy too. The conviction evidently continues to prevail in research and enterprises alike that only things which can actually be measured and evaluated can also be successfully managed and designed. Their endeavours to develop methods and instruments which allow performances of all kinds to be evaluated and improved are correspondingly intensive.

Due not least to the new challenges that result from the transformation of work as well as to factors which influence performance and quality in service settings, a trend is emerging in the international debate about performance measurement and evaluation away from simple performance measurement methods and towards more extensive performance management systems. Whereas traditional measurement systems, which were strongly dominated by financial indicators, generally focused on the requirements of corporate controlling, performance management approaches tend

to address the level of strategic company management.

Some ten years after the original publication by Kaplan and Norton (1992), the concept of the balanced scorecard (BSC) is still an important issue in the performance measurement and performance management debate. Two main conclusions can be drawn here. Firstly, the balanced scorecard concept remains extremely popular both in the real business world and as an object of academic discussion as well as of related research and development activities. It is also acknowledged to be one of the most widespread concepts to support controlling and strategic management. Secondly, despite this triumphal advance, unmistakable disillusionment can be noted with regard to the real benefits of its concrete implementation. These two aspects – the popularity of the BSC concept on the one hand and the disappointment with its practical application and impact on the other – have led the original concept to be developed further in various directions since the early nineties, which accounts for the present-day categorisation into at least three balanced scorecard generations. The evolution of the BSC from a simple instrument for measuring performance to a more flexible and more sophisticated tool for strategic company management is a key element.

The Fraunhofer Institute for Industrial Engineering has responded to this evol-

ution of the worldwide debate, focusing part of its research and development work since 1999 on the measurement and evaluation of service-relevant goals and performance elements and attempting to support the enhancement of performances in the service economy. Its objective is to verify the extent to which concepts, methods and instruments for performance measurement and performance improvement – not only scorecards but also the EFQM model and the benchmarking principle – can be transferred to service settings and to combine and optimise suitable elements in such a way that they are more closely aligned with service-specific management requirements.

It is against this background that the competence card – to name but one example – is being methodically developed and filled with typical contents within the framework of a joint research programme known as »Fit for Service – International Benchmarking for the Service Economy in Germany« as a strategic implementation instrument, both for performance measurement and for performance enhancement, through competence-building and benchmarking in important growth areas of the service economy. The competence card provides organisations and organisation networks, as well as players responsible for designing the socio-political environment in which organisations operate, with an instrument that helps them to consider from the point of view of strategic design firstly

which content-relevant aspects should be developed for benchmarking as learning from the best by comparison and secondly how performance measurement and performance enhancement can be organised and realised.

Service Engineering

Differentiation through innovative services is nowadays an increasingly important factor, and in many cases represents a crucial unique selling feature for companies to set themselves apart from their competitors. The future challenges facing enterprises will above all compel them to offer continuously improved and new services in the marketplace, to always remain one step ahead of the competition and at the same time to comply exactly with customer needs and expectations. Many companies – both traditional service providers and suppliers of industrial services – however presently exhibit surprising uncertainty when it comes to defining integrated development processes with the aim of enabling ideas for new services to be translated into marketable concepts as efficiently and successfully as possible. The development of services as encountered in practice generally tends to take the following form: New services are »commands« handed down by the company management and they frequently miss market requirements. Customer needs and expectations are not adequately analysed and employees' requirements are not

taken into account. What is more, separate R & D management departments for services – a vital prerequisite for efficient planning, conceptualisation and market positioning of new services – are unfortunately a rare exception in companies today.

It is for this reason that, since 1995, the Fraunhofer Institute for Industrial Engineering has concerned itself with the meaningful transfer and application of engineering science know-how to the service sector. The term »service engineering« focuses primarily on the systematic development and design of service products and service systems using suitable models, methods and tools. Basic research into *methods and process models for the development of services* is one central element of the Institute's current activities. The elaboration of prototyping methods for services and the development of a computer aided service engineering tool are just two examples. Integrated methods for *co-engineering goods, software and services* to facilitate the efficient design of complex customised solutions are also being evolved. Furthermore, the growing *desire for standardisation* in the service sector, as exemplified by the trend in the field of electronic commerce with services, will also impact service engineering: the increasing definition of service standards encourages the specification, development and re-use of services, for instance.

In the light of escalating demands for practical relevance, it would also seem especially important to thrust ahead with the *development of suitable qualifications and professions* as well as with the *creation of education and further training offerings* in the field of service engineering. From a very early stage, the Institute has proposed lectures and practice-based seminars on these topics. Meanwhile, several other research establishments in Germany have also introduced courses in service engineering, and it is only a matter of time before the first training and university courses leading to graduation as a service engineer or a service designer are launched.

Outlook

In the medium term, the Fraunhofer Institute for Industrial Engineering plans to further strengthen its holistic view in the area of service research as outlined above. Particularly intensive efforts will be invested in promoting the multidisciplinary integration of research work in the fields of service development and service management. A conspicuous leaning can be observed in the international debate in the direction of basic research-oriented and theory-forming fields concerned with analysing the nature, scope and value creation of services, and it is against this background that the Fraunhofer Institutes must consider which contribution they can make towards sharpening the profile of »services« as a research topic.