

IMS Research Report No 3

Integrated Management Systems in the Light of International Expert Interviews

- Present Situation and Further Developments in the Trade and Service Sector -

Funck, D.; Mayer, M.; Schwendt, S.

Göttingen 2001

ISBN: 3-925327-67-3

All Rights Reserved. © 2001 by GHS.

The research project on which this report is based was promoted by the BMBF (German Federal
Ministry of Education and Research) .

(Reference 01HG9937/3). The authors are responsible for the content.

Göttinger Handelswissenschaftliche Schriften e.V.
Konrad Adenauer Straße 10
37075 Göttingen

Table of Contents

| | Page |
|--|-------------|
| Table of Contents | I |
| Table of Figures | III |
| Table of Abbreviations | IV |
| 1 Objective and Structure of the Report | 1 |
| 2 Statistics | 3 |
| 2.1 General Overview | 3 |
| 2.2 Companies | 5 |
| 2.2.1 Legal Character | 5 |
| 2.2.2 Area of Activity | 5 |
| 2.2.3 Number of Employees | 6 |
| 2.2.4 Yearly Turnover | 7 |
| 2.2.5 Position of Interview Partners with regard to Management Systems .. | 8 |
| 2.2.6 Position of Interview Partners within the Organisation | 8 |
| 2.3 Certification Bodies | 9 |
| 2.3.1 Work Experience | 10 |
| 2.3.2 Field of Activity | 11 |
| 2.3.3 Customer Profile | 12 |
| 2.4 Consultants | 13 |
| 2.4.1 Work Experience | 13 |
| 2.4.2 Area of Activity | 14 |
| Customer Profile | 15 |
| 2.5 Research | 16 |
| 3 General Questions | 16 |

| | |
|--|-----------|
| 3.1 Reasons for the Failure of Management Systems..... | 16 |
| 3.2 Tasks of Consultants and External Trainers..... | 18 |
| 3.3 Management Systems and Innovation..... | 19 |
| 3.4 Scope of Management Systems..... | 19 |
| 3.5 Arguments in favour of Management Systems..... | 20 |
| 3.6 Arguments against Integrated Management Systems..... | 22 |
| 3.7 Areas of Integration | 23 |
| 3.8 Features of Integrated Management Systems..... | 25 |
| 3.9 Conflict between Customer Satisfaction and Ecological Objectives | 26 |
| 3.10 Models for IMS | 27 |
| 3.11 IMS Standard..... | 29 |
| 3.12 Perspectives of IMS | 30 |
| 4 Company Questions..... | 32 |
| 4.1 Implemented resp. Planned Management Systems | 32 |
| 4.2 Involvement in Co-operations | 34 |
| 4.3 Process Orientation | 35 |
| 4.4 Level of Implementation of IMS | 36 |
| 4.5 Integrated Systems | 38 |
| 4.6 Areas of Responsibility | 39 |
| 5 Question to Consultants, Certification Bodies and Companies (Auditing)..... | 40 |
| 6 Questions to Consultants and Certification Bodies (Contents of IMS) | 41 |
| 7 Questions to Consultants, Certification Bodies and Academics | 43 |
| 7.1 Influence of the Company's Business Sector on the Implementation of Management Systems..... | 43 |

| | |
|--|-----------|
| 7.2 Influence of the Company Size on the Implementation of Management Systems | 44 |
| 7.3 The ISO 9001 : 2000 Process Model..... | 45 |
| 7.4 Problems of ISO 9001 : 2000 Implementation..... | 46 |
| 7.5 Implementation Level of Integrated Management Systems..... | 47 |
| 8 Question to Academics..... | 48 |
| 8.1 Theoretical Approaches as a Basis for an IMS | 48 |
| 8.2 Areas and Need for Research..... | 49 |
| 9 Summary..... | 50 |
| 10 Questionnaire | 51 |
| 11 The Authors | 58 |

Table of Figures

| | |
|--|----|
| Figure 1: Structure and Return quota of the survey | 4 |
| Figure 2: Return quota of the different groups | 4 |
| Figure 3: Return quota of the different countries | 4 |
| Figure 4: Legal character of surveyed companies | 5 |
| Figure 5: Distribution of areas of activity..... | 6 |
| Figure 6: Number of employees in the organisations surveyed..... | 7 |
| Figure 7: Yearly turnover (€) of the companies surveyed | 7 |
| Figure 8: Hierarchical position of system managers..... | 9 |
| Figure 9: Work experience of external assessors | 10 |
| Figure 10: Work experience of certification bodies: GER and GB in comparison | 10 |
| Figure 11: Fields of activity..... | 11 |
| Figure 12: Auditing Focus | 12 |
| Figure 13: Company-size of assessor customers | 12 |
| Figure 14: Business sector of assessors' clients | 12 |
| Figure 15: Work experience of consultants | 13 |
| Figure 16: Area of activity of consultants | 14 |
| Figure 17: Key areas of counselling | 15 |
| Figure 18: Company-size of consultants' customers..... | 15 |

| | |
|---|----|
| Figure 19: Areas of activity of consultants' clients | 16 |
| Figure 20: Reasons for the failure of management systems | 17 |
| Figure 21: Reasons for failure according to different expert groups | 17 |
| Figure 22: Functions of Consultants..... | 18 |
| Figure 23: Management systems and innovative power..... | 19 |
| Figure 24: Scope of management systems..... | 20 |
| Figure 25: Arguments in favour of integrated management systems | 21 |
| Figure 26: Reasons for IMS in an international comparison..... | 21 |
| Figure 27: Arguments against Integrated Management Systems..... | 22 |
| Figure 28: Reasons against an IMS: German companies and assessors in comparison .. | 23 |
| Figure 29: Areas of integration..... | 24 |
| Figure 30: Importance of areas of integration in Germany and the UK | 24 |
| Figure 31: Features of an IMS | 25 |
| Figure 32: Conflict between customer satisfaction and ecological objectives | 26 |
| Figure 33: The resolution of conflicts between IMS-objectives according to countries .. | 27 |
| Figure 34: Suitability of the models for the evaluation of IMS..... | 28 |
| Figure 35: Experts' familiarity with management models | 28 |
| Figure 36: Familiarity of models in comparison: certification bodies and companies.. | 29 |
| Figure 37: Importance of an IMS norm | 30 |
| Figure 38: Approval/ disapproval with an IMS norm | 30 |

| | |
|---|----|
| Figure 39: Level of implementation of individual management systems..... | 32 |
| Figure 40: Level of implementation in the three countries..... | 33 |
| Figure 41: Extent of co-operative functions | 35 |
| Figure 42: Share of companies that have informed about process orientation..... | 36 |
| Figure 43: IMS – Level of implementation | 37 |
| Figure 44: Contents of an IMS | 38 |
| Figures 45: Positions responsible for the implementation of an IMS | 39 |
| Figure 46: Positions responsible for the implementation of IMS..... | 40 |
| Figure 47: Focus of Certification Audits | 41 |
| Figure 48: Extent of Integration | 42 |
| Figure 49: Influence of business sector on implementation of Management Systems.... | 43 |
| Figure 50: Implementation problems depending on the business sector..... | 44 |
| Figure 51: Influence of company size on the implementation of management systems .. | 45 |
| Figure 52: Implementation problems due to company size..... | 45 |
| Figure 53: Suitability of ISO 9001 : 2000 for trade and service companies..... | 46 |
| Figure 54: Implementation Problems of ISO 9001:2000..... | 47 |
| Figure 55: Theoretical Models for an IMS | 48 |

Table of Abbreviations

| | |
|--------|---|
| BMBF | Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research) |
| BSE | Bovine Spongiform Encephalopathy |
| CI | Corporate Identity |
| CIP | Continual Improvement Process |
| DIN | Deutsches Institut für Normung (German Standardisation Institute) |
| Dipl. | Diplom |
| Dr. | Doktor |
| E | Environment |
| EFQM | European Foundation for Quality Management |
| EC | European Community |
| e.g. | for example |
| EM | Environmental Management |
| EMAS | Eco Management and Audit Scheme |
| EQA | European Quality Award |
| etc. | et cetera |
| EU | European Union |
| € | Euro |
| GER | Germany |
| HACCP | Hazard Analysis Critical Control Point |
| I.i.P. | Investors in People |
| IMS | Integrated Management Systems |
| Ing. | Ingenieur (Engineer) |
| ISO | International Organization for Standardization |
| Kff. | Kauffrau (Master of Business Administration) |
| Manag. | Managing |
| MS | Management Support |
| OHS | Occupational Health and Safety |

| | |
|--------|--|
| Prof. | Professor |
| Q | Quality |
| QM | Quality Management |
| QS | Quality System |
| resp. | respectively |
| S | Sweden |
| SA | Social Accountability |
| SCC | Safety Checklist Contractors |
| SME | Small and Medium Enterprises |
| Strat. | strategic |
| Tel. | Telephone |
| TQM | Total Quality Management |
| UK | United Kingdom |
| VDA | Verband der Automobilindustrie e.V. (Association of the German Automotive Industry) |

1 Objective and Structure of the Report

Issue management systems (for quality or environment) have gained increasing relevance during the last years. A growing number of companies is introducing quality, environmental and/ or occupational health and safety management systems, which are not only audited against various standards or management models but are also certified and validated in many cases. The most important of these standards and models are the ISO standards for quality (9000) and environment (14000), EMAS, the occupational health and safety management system SCC (safety checklist contractors) and the European quality award (EQA), which is based on the EFQM model.

Experience in recent years has unveiled that introducing and maintaining separate management systems causes not only double work but leads to co-ordination problems. It also interferes with establishing comprehensive control measures and a clearly defined image. Due to these problems, integrated management systems are being increasingly introduced in order to harmonise objectives and tasks of a company's management system. Empirical results suggest that half of all companies that are familiar with the "management system" issue have either implemented an IMS or are planning to do so.¹

It has to be noticed, however, that the above mentioned empirical results are limited to producing companies, do not take into account the perspective of consultants and certification bodies, and, what is more, all of the mentioned studies are restricted to empirical data from only one country.

Therefore, within the scope of the research project "The certification of integrated quality and environmental management systems in small and medium-sized enterprises in service and trade" (Internet: www.ims-research.de) - started by the Department for Marketing and Commerce at Göttingen University in January 2000 - 3,273 experts from Germany, UK and Sweden were surveyed in autumn 2000 (return quota: 18.3%). Among the interviewed persons were system managers, CEOs of service and trade organisations, consultants and academics.

Apart from gathering knowledge about the introduction and maintenance of management systems in service and trade organisations, it was the objective of the survey to

¹ *Enzler, S.*: Intergrated process-oriented management. A combination of environmental, quality and occupational health and safety management systems with help of organisational processes, Berlin 2000. *KPMG (Eds.)*: Quality and environmental management systems in service and producing companies, Berlin 1998. *Kroppmann, A.; Schreiber*, Combination of quality and environmental management: Results of a survey among 3000 companies in Nordrhein-Westfalen, Dortmund 1996.

obtain a general insight into the state of development of integrated management systems. It was especially interesting to find out how the survey groups differed in their opinions on objectives, problems and perspectives of IMS and their auditing/ certification and moreover, to analyse national particularities.

The report is structured as follows: After a statistical overview (in chapter 2) the results of twelve questions will be presented, which have been answered by all survey groups (chapter 3). In chapter 4, the results of company-specific questions are summarised. Chapters 5 to 7 analyse questions which have been answered by selected sub-groups (mainly consultants and certification bodies, in some cases also companies and academics). Chapter 8 focuses on the answers of academics.

In chapter 9, results of the report will be summarised in propositions.

As the collected data allows for numerous comparisons and interpretations, the report is limited to a presentation of quantitative results for each question (mainly frequencies and averages). Presented are first and foremost aggregated results across all questioned persons/ organisations. Detailed analyses according to countries and/ or particular groups are only carried out when significant deviations from the average of all answers occurred.

We would like to conclude this introduction by thanking all experts which have participated in the survey. The high return quota and numerous additional remarks – some experts even enclosed long covering letters – were not only motivating but provided valuable information for the next steps of our project.

2 Statistics

2.1 General Overview

In the beginning of the survey, the lack of an easily quantifiable entirety presented the most significant problem. It was especially difficult to determine which companies, consultants and scientists were relevant for this survey. It was due to this problem, that addresses of organisations and persons had to be collected in sometimes arduous work. Especially the internet was used as a source of information.

The survey group of service and trade organisations was limited to those with at least one validated management certificate at the time of the survey. Internet data bases of certification bodies were a useful source in this respect. Using this method, it was possible to generate 1,903 addresses from Germany, UK and Sweden. This accounted for 58.1% of all interviewed persons/ organisations. 297 returned questionnaires accounted for a satisfying 15.6% return quota, which corresponds to 48.5% of the entire return.

Internet research produced a total of 953 consultants' addresses (29.1% of all organisations surveyed), who are dealing with the introduction and maintenance of management systems and also include service and trade organisations as clients. The return quota of 19.8% was astonishingly high, which was especially due to the high quota of English consultants (25.2%). Consultants account for a share of 31.5% of the entire return.

With regard to the certification bodies, a comprehensive survey in all three countries was the aim. 286 organisations of this business sector were asked to fill in the questionnaire (8,7% of all organisations surveyed). 80 returned questionnaires account for a high return quota of 28% (13.3% of the entire return).

The most difficult task was the generation of a data base of relevant research institutes. Although a large number of public and private institutions of different theoretical disciplines are concentrating on IMS-related topics, there is no overview or database of these. During our research, we found a total of 131 addresses (4% of all organisations surveyed). The return quota of 26% (34 returned questionnaires) accounted for 5.7% of the entire return.

The following table illustrates the results:

| Group | Germany | | United Kingdom | | Sweden | | Total | |
|-----------------------|--------------|------------------------|----------------|------------------------|------------|-----------------------|--------------|------------------------|
| | Sur-veyed | Return Quota | Sur-veyed | Return Quota | Sur-veyed | Return Quota | Sur-veyed | Return Quota |
| Compa-nies | 1.103 | 207 (18.8%) | 520 | 54 (10.4%) | 280 | 36 (12.9%) | 1.903 | 297 (15.6%) |
| Consult-ants | 629 | 108 (17.2%) | 270 | 68 (25.2%) | 54 | 13 (24.1%) | 953 | 189 (19.8%) |
| Certifi-cation Bodies | 194 | 60 (30.9%) | 81 | 15 (18.5%) | 11 | 5 (45.5%) | 286 | 80 (28,0%) |
| Acade-mics | 87 | 28 (32.2%) | 36 | 4 (11.1%) | 8 | 2 (25.0%) | 131 | 34 (26%) |
| Total | 2.013 | 403 (20.0%) | 907 | 141 (15.5%) | 353 | 56 (15.9%) | 3.273 | 600 (18.3%) |

Figure 1: Structure and return quota of the survey

The return quota of the four groups accounted for the following distribution:

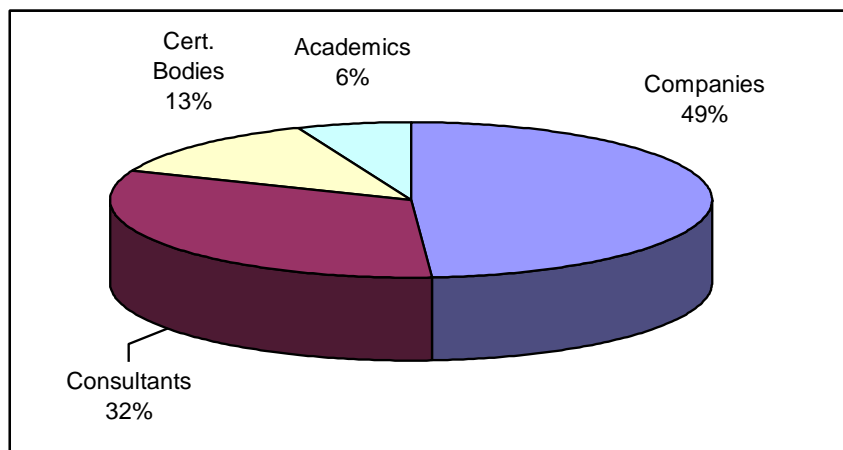


Figure 2: Return quota of the different expert groups

Return quota of the different countries.

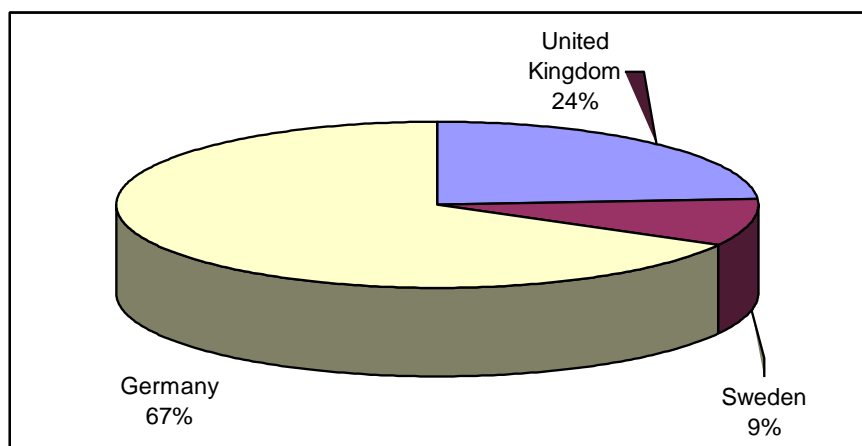


Figure 3: Return quota of the different countries

2.2 Companies

15.6% of all companies returned a questionnaire. 207 German, 54 English and 36 Swedish questionnaires gave us the opportunity to carry out a differentiated analysis for each country.

2.2.1 Legal Character

In order to increase the validity of answers, all interviewed companies were asked to state whether they work in the public or private sector. The share of public organisations was relatively low with an average of 11.9%. However, a differentiated analysis revealed that this share was higher for English and Swedish companies in comparison to German organisations (Figure 4).

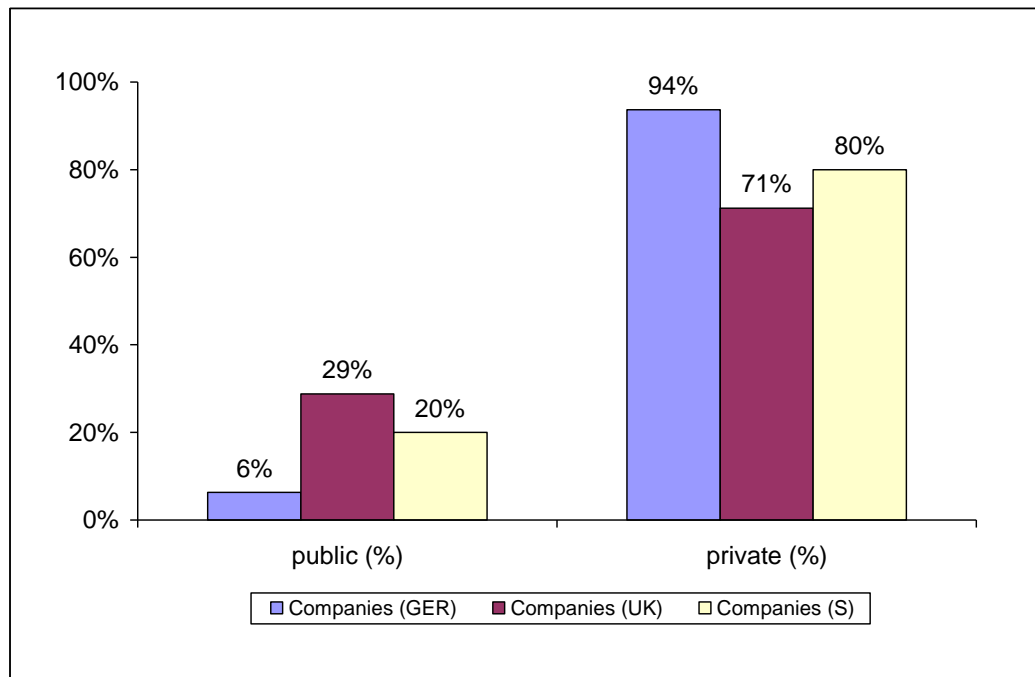


Figure 4: Legal character of surveyed companies

2.2.2 Area of Activity

In order to make sure that the survey focused on the relevant group of service and trade organisations, all companies were asked to classify their area of activity under the categories “production”, “trade”, “service” and “agriculture”. On average, 79% of all surveyed companies belonged to the service and trade sector and 21% belonged to the industrial sector. The agricultural sector was included as an alternative for the sake of

completeness although it was actually not represented in the sample (0.3%). Figure 5 gives an overview of the distribution.

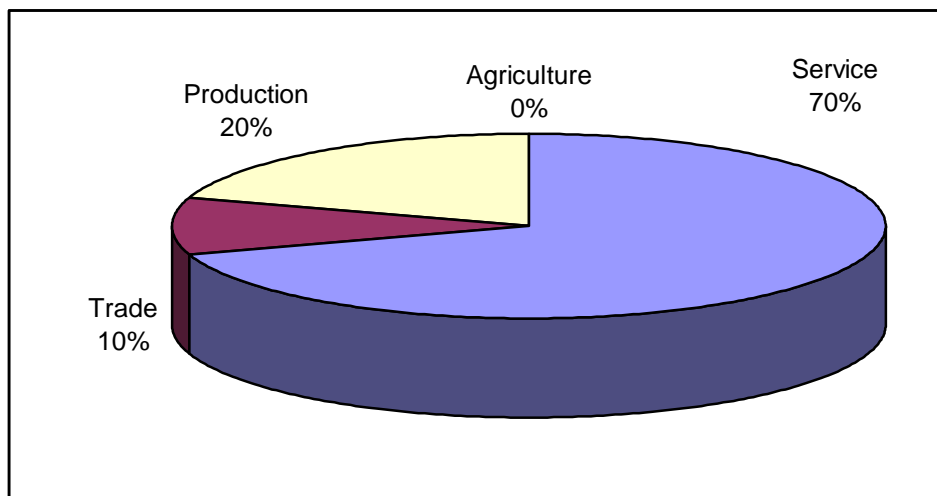


Figure 5: Distribution of areas of activity

Germany held the highest share of relevant companies with altogether 85% service and trade organisations in our survey group, while Sweden offered the lowest share with 61%.

2.2.3 Number of Employees

Apart from focusing on particular areas of activity of the expert group, the survey was mainly directed towards small and medium-sized enterprises (SMEs). In order to receive sound results, the companies were asked to indicate their number of employees and their turnover (see 2.2.4). Across all countries, 77% of the organisations could be classified as SMEs because of their number of employees (< 500). A detailed overview is provided in figure 6, which shows that in the German and English samples the focus is on small and very small companies, while in Sweden the number of medium-sized enterprises is predominant. Large companies play only a minor role in the samples of all three countries.

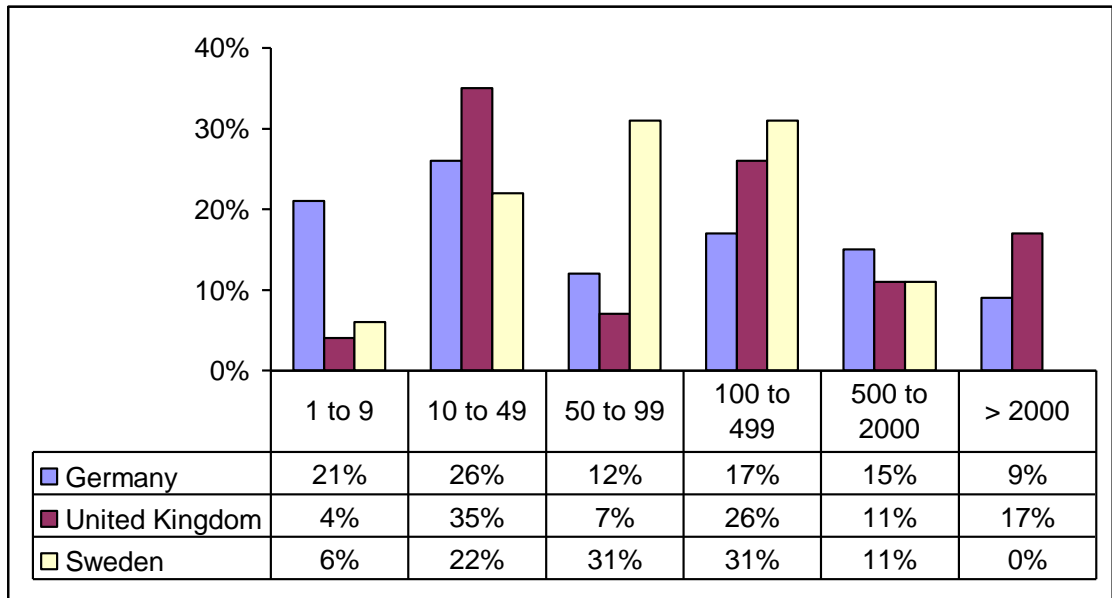


Figure 6: Number of employees in the organisations surveyed

2.2.4 Yearly Turnover

Apart from the number of employees the yearly turnover of a company is also frequently used as a criterion to distinguish SMEs from large companies. It has, however, to be taken into account that quantitative criteria have only limited validity and are often used mainly because of their high feasibility. This is especially true for service and trade organisations - because also capital-intensive services like financial services belong to this group. Even service organisations with a yearly turnover of 500 Mio. € can show characteristics of SMEs.

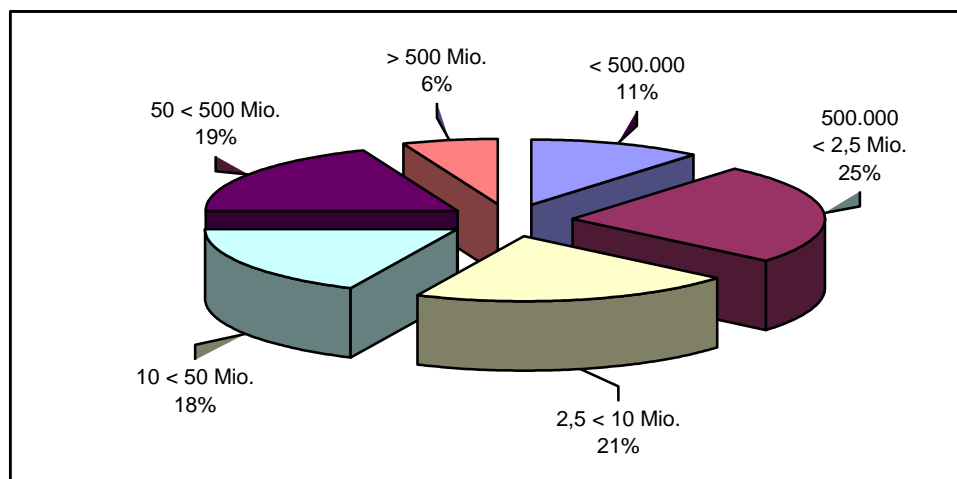


Figure 7: Yearly turnover (€) of the companies surveyed

2.2.5 Position of Interview Partners with Regard to Management Systems

In order to be better able to assess the quality of the results for the group of companies, the interview partners were asked to give details about the position they hold with respect to management systems (multiple answers possible) and how long they have been in this position. The position most frequently mentioned was that of a quality manager (201), followed by environmental manager (59), safety manager (22) and process manager (20). Comparing the three countries, it has to be mentioned that, in the UK, there are significantly more process managers than in the other countries. In the section “others” only very few positions were mentioned, especially hygiene managers, auditors and consultants. Most interview partners (65.5%) had one to five years of working experience in their job.

Since it was possible to tick several answers, it was interesting to find out whether different functions were exercised by one person – especially in the light of the integration issue. With respect to the four answer alternatives, it turned out that in 20.6% of all cases, only one person was responsible for two of the areas mentioned. The combination of quality and environmental management was most frequently found. An astonishing rate of 3.9% of all interview partners was responsible for three areas – with quality, environmental and safety management being the most frequent combination.

The above presented results highlight that integration efforts are primarily a responsibility of the system managers. The impetus for such integrative efforts seems to come most often from the quality management section.

2.2.6 Position of Interview Partners within the Organisation

The efficiency of system managers is highly influenced by the competencies which are connected with their job. The scope of these competencies is to a large degree influenced by the hierarchical position the system manager holds within the organisation. The interview partners from the group of companies therefore had to indicate which position they are holding within the organisation. Options ranged from CEO, assistant to CEO, executive employee and member of staff. For the last two positions, there was an additional option to specify their job. This was used by a larger share of persons. Another additional option to mention further alternatives was not used in any of the English questionnaires and only to a minor degree in German and Swedish questionnaires. These are therefore only singular cases. The following table presents a ranking of given answers according to countries.

| Group | Position 1 | Position 2 | Position 3 | Position 4 |
|-----------------|---------------------------|---------------------------|-------------------------|-------------------------|
| Companies (GER) | Executive employee 37% | CEO 36% | Member of Staff 16% | Assistant to CEO 11% |
| Companies (GB) | Executive employee 46% | CEO 33% | Assistant to CEO 19% | Member of Staff 2% |
| Companies (S) | Assistant to CEO 33% | Executive employee 30% | CEO 27% | Member of Staff 10% |

Figure 8: Hierarchical position of system managers

The ranking clearly shows that in our sample executive employees or CEOs are mainly responsible for management systems (between 57% and 73%). Only in Sweden, CEOs are taking position three percentagewise. The members of staff play only a minor role in comparison in all three countries (2% to 16%).

Furthermore, it is interesting that, for all groups, a share of 22.6% of all executive employees are exclusively dealing with management systems, which means they have a department or team solely at their disposal.

Altogether, these results allow for the conclusion that within the companies surveyed management systems are regarded as an important issue, which finds its expression also in the organisational embodiment of these systems. It can, however, be assumed that taking part in our survey shows a rather progressive approach towards management systems in these companies and a generalisation of results might not be indicated.

2.3 Certification Bodies

The return quota of questionnaires sent to certification bodies totals 28% (Germany: 60 returned questionnaires, UK 15 questionnaires and Sweden 5 questionnaires).

The small number of Swedish answers can be explained by the fact that there are only 11 Swedish certification authorities. Hence, for Sweden no isolated analysis could be carried out in spite of a high return quota of 45.5%.

2.3.1 Work experience

The certification bodies were asked to provide information about their work experience in order to increase the validity of their answers. An overview of the results is presented in the figure below.

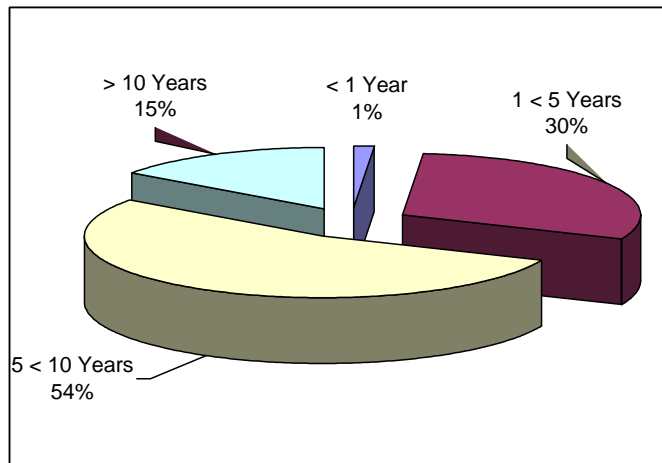


Figure 9: Work experience of certification bodies

According to the results, the surveyed third-party assessors are rather experienced. Almost 70% had been employed in their job for five or more years at the time the survey took place. However, a comparison of the three countries showed that most English assessors had been employed for more than 10 years (40%) while this percentage was much lower in Germany (9%) (See figure 10).

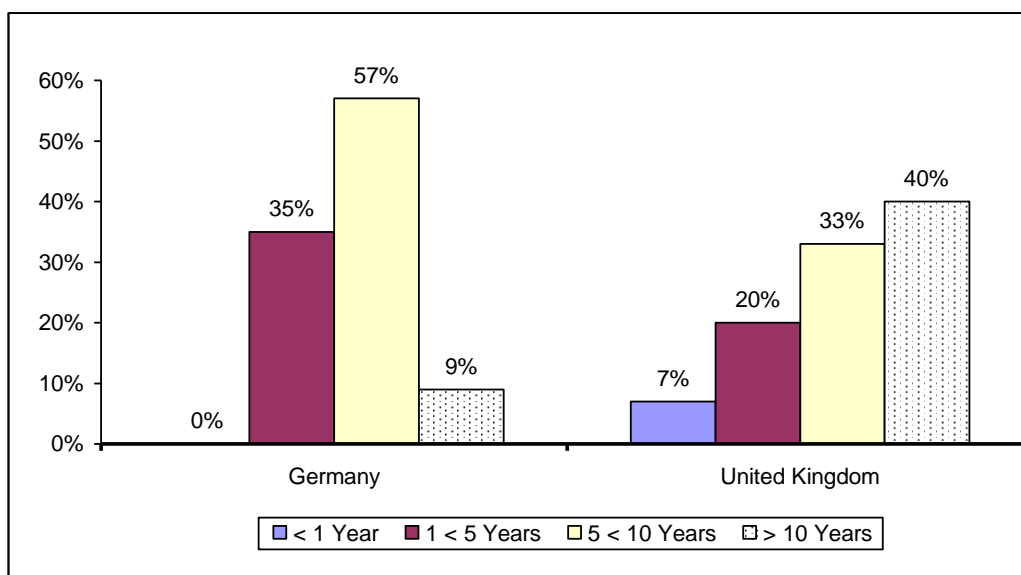


Figure 10: Work experience of certification bodies: GER and GB in comparison

2.3.2 Field of Activity

The certification bodies were questioned about the management models they offer assessment for. Multiple answers were possible, which resulted in a total of 389 answers for 80 third-party assessors in all three countries (almost five models per assessor). Figure 11 shows the distribution of models in percent. The three models “ISO 9000”, “ISO 14001” and “EMAS” account for a share of 47%. The section “others” included especially waste disposal regulation (2.8%), Social Accountability 8000 (2.3%) and TS 16949 (1.8%).

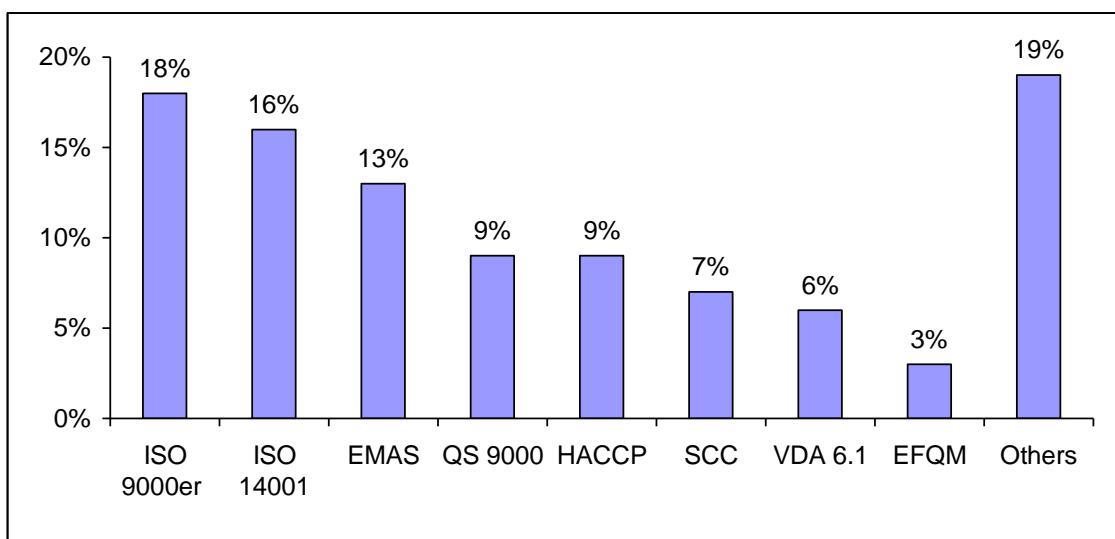


Figure 11: Fields of activity

Apart from their fields of activity the certification bodies were asked about keypoints of their assessment. ISO 9000 and 14001 audits accounted for approximately half of all audits (Figure 12).

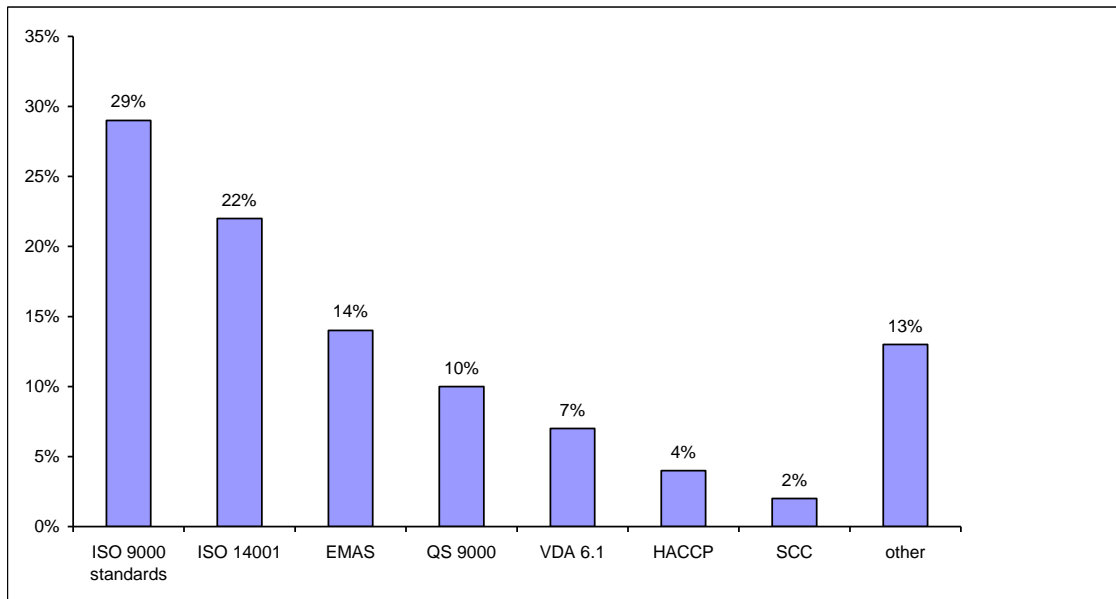


Figure 12: Auditing Focus

2.3.3 Customer profile

The certification bodies were additionally questioned about company size and business sector of their clients.

As Figure 13 shows, SMEs form the majority of clients. More than half of all clients have less than 50 employees.

| Average [%] | Number of employees | | | | Total |
|-----------------------|---------------------|-------|--------|-------|-------|
| | 1-10 | 11-50 | 51-500 | > 500 | |
| Germany | 15.4 | 37.9 | 31.4 | 15.2 | 100.0 |
| United Kingdom | 26.7 | 37.3 | 29.0 | 7.1 | 100.0 |
| GER, GB, S | 17.2 | 37.9 | 31.2 | 13.7 | 100.0 |

Figure 13: Company-size of third-party assessors' clients

As Figure 14 highlights, half of all assessor's clients have an industrial background, while one third comes from the service sector. 10% of all clients are trade companies.

| Average [%] | Business sector | | | | Total |
|-----------------------|-----------------|---------|-------|-------------|-------|
| | Production | Service | Trade | Agriculture | |
| Germany | 57.6 | 33.7 | 7.3 | 1.4 | 100.0 |
| United Kingdom | 48.7 | 39.2 | 11.5 | 0.6 | 100.0 |
| GER, GB, S | 55.0 | 33.9 | 8.5 | 2.7 | 100.0 |

Figure 14: Business sector of third-party assessors' clients

2.4 Consultants

In the group of consultants, a sufficient number of questionnaires from Germany (108) and United Kingdom (68) allowed a country-specific analysis. For Sweden such an analysis was carried out if the number of answers for one question was higher than 10. If questions were not answered (no answer or “Do not know”) these statements from Swedish consultants were only included in the overall analysis of the group “consultants”.

2.4.1 Work Experience

Consultants have a higher work experience than third-party assessors. Almost half of all consultants (49%) declared to have more than 10 years of work experience. (Figure 15).

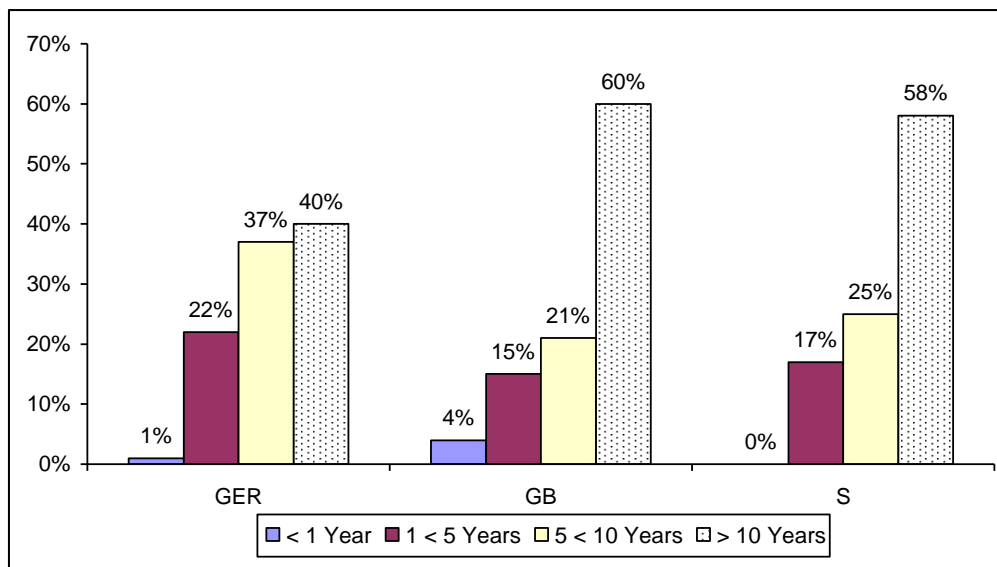


Figure 15: Work experience of consultants

2.4.2 Area of Activity

The consultants were questioned about the management models they offer counselling for. Multiple answers were allowed. As a result we received a total of 735 answers from 189 consultants, which equals an average of 3.9 models per consultant. As is apparent in Figure 16, the most significant difference to certification bodies is the importance of EFQM-counselling. This is due to the fact that external assessment according to the EFQM-model is not obligatory and does only take place if the company explicitly asks for it. In the section “others” especially Social Accountability 8000 (1.5%), TS 16949 (1.1%) and BS 8800 (0.7%) have been mentioned.

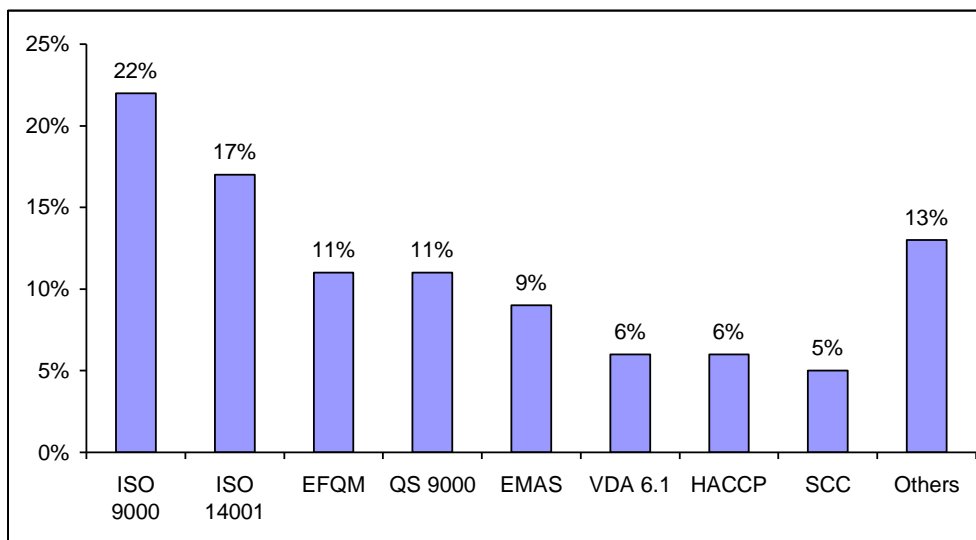


Figure 16: Areas of activity of consultants

Apart from their areas of activity, consultants were asked to indicate key areas of their counselling. Counselling according to ISO 9000 and 14001 make up for approximately half of all consultations (Figure 17). EFQM follows in third position.

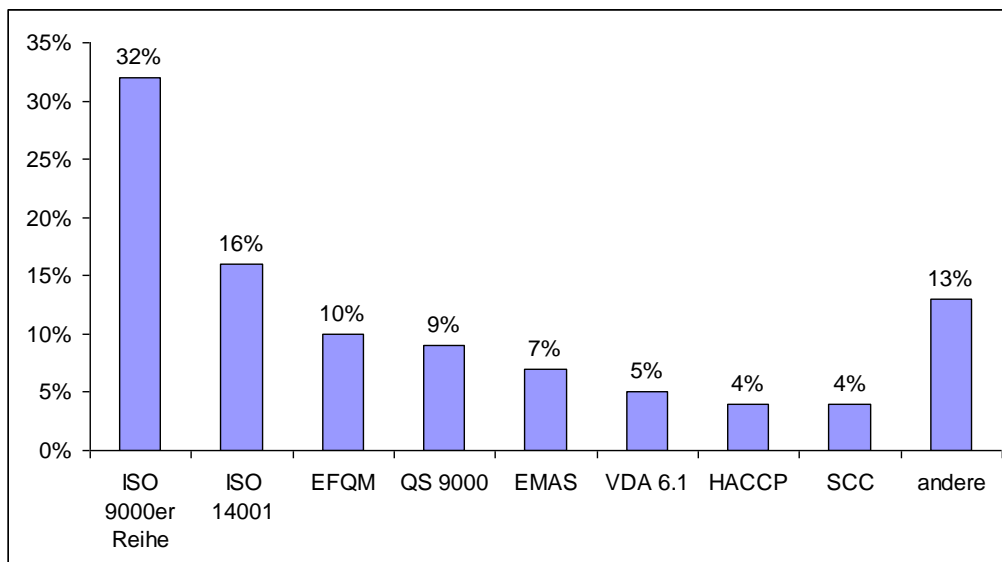


Figure 17: Key areas of counselling

2.4.3 Customer Profile

Not only certification bodies but also consultants were asked to describe their client profile. As Figure 18 shows, the results are similar to those in 2.3.3. Again, customers with SME background form the majority – more than half of all companies have less than 50 employees.

| Average [%] | Number of employees | | | | Total |
|-----------------------|---------------------|-------|--------|-------|-------|
| | 1-10 | 11-50 | 51-500 | > 500 | |
| Germany | 15.8 | 36.7 | 30.9 | 16.6 | 100.0 |
| United Kingdom | 15.7 | 34.0 | 28.1 | 22.2 | 100.0 |
| Sweden | 16.5 | 42.2 | 32.7 | 8.7 | 100.0 |
| GER, GB, S | 15.8 | 36.1 | 30.1 | 18.0 | 100.0 |

Figure 18: Company-size of consultants' customers

As can be seen in Figure 19, approximately half of all consultants' clients have an industrial background and one third is working in the service sector. Clients with a trade background represent app. 15% of all consultants' clients – which represents a higher percentage than in the case of third-party assessors' clients.

| Average [%] | Area of activity | | | | |
|-----------------------|------------------|---------|-------|-------------|-------|
| | Industry | Service | Trade | Agriculture | Total |
| Germany | 47.8 | 35.8 | 15.9 | 0.5 | 100.0 |
| United Kingdom | 49.7 | 40.6 | 8.6 | 1.1 | 100.0 |
| Sweden | 37.9 | 44.9 | 16.9 | 0.4 | 100.0 |
| GER, GB, S | 47.8 | 38.3 | 13.3 | 0.7 | 100.0 |

Figure 19: Areas of activity of consultants' clients

2.5 Research

Our survey included 34 returned questionnaires from academics, 28 (or 82%) of these coming from Germany.

The statistics part focused primarily on the academic fields they were working in. 50% of all academics had a degree in law, 34% had studied natural/ technological sciences and 13% had an economics background. 3% belonged to "others".

3 General Questions

The survey contained twelve questions which had to be answered by all groups (companies, consultants, auditors and academics). In the following chapters the results of these questions are summarised. It will be proceeded in the following way: The average evaluation of the particular items will be presented across all groups and all countries. Detailed results will only be explained if significant deviations from the average of all answers occurred.

3.1 Reasons for the Failure of Management Systems

There are many reports on companies that failed in the maintenance of a management system. In your opinion, how important are the reasons below for this failure?

Scale from 1 (not important) to 5 (very important); average: 3. There was also a possibility to choose "do not know".

The following table summarises the eleven items of this question, organised according to average values for all groups and all countries.

| Item | Average |
|--|---------|
| Not enough management support | 4.0 |
| Operational assignments take up all the time | 3.7 |
| Employees are not sufficiently trained | 3.6 |
| Too much emphasis on documentation | 3.6 |
| Employees are not ready for change | 3.3 |
| System manager has not enough power to decide | 3.2 |
| Costs are higher than benefits/ profits | 3.2 |
| Departments do not co-operate | 3.0 |
| The company's hierarchy is too rigid | 2.8 |
| Imprecise wording/ instructions in the standards | 2.6 |
| Inadequate financial resources | 2.6 |

Figure 20: Reasons for the failure of management systems

It becomes apparent that the lack of management support can be regarded as the predominant reason for the failure of management systems. The items “operational assignments”, “insufficient training” and “overemphasis on documentation” follow.

Apparently, “financial resources”, “unclear instructions in standards” and “rigid hierarchy” are not seen to be important obstacles.

A more detailed analysis it shows that companies perceive certain internal aspects to be less problematic than consultants, auditors and academics. As is highlighted in the following figure, there are especially differences with respect to the items “management support” “lacking authority of system manager” and “rigid company’s hierarchy”.

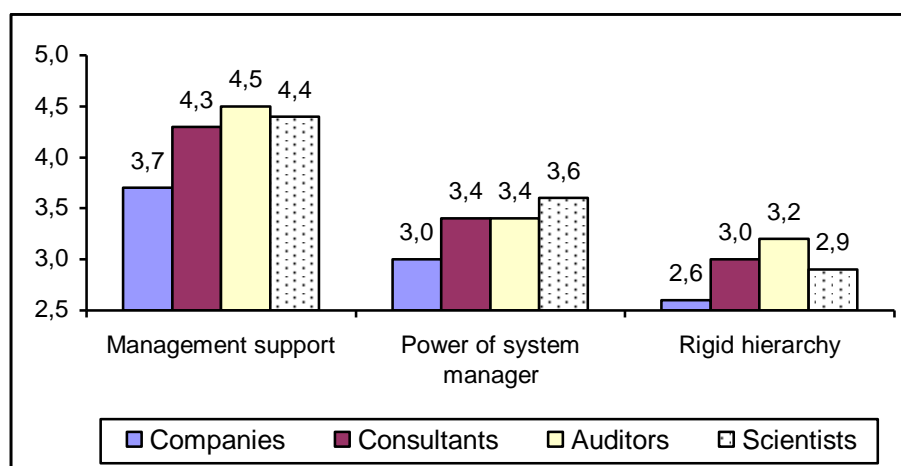


Figure 21: Reasons for failure according to different expert groups

What is remarkable is the cultural difference between Germany and the UK and also between the UK and Sweden. While items like “costs are higher than profits” (3.3) and “lacking readiness for change” (3.4) are considered as rather important reasons for

failure in Germany, these items are judged to be of less importance in the UK (2.9 and 3.0) and Sweden (2.7 and 3.0).

3.2 Tasks of Consultants and External Trainers

What do you think: Which of the following functions should be taken over partly or fully by consultants or professional trainers during the building and continuing maintenance of a management system?

Scale from 1 (not important) to 5 (very important); average: 3. There was also a possibility to choose “do not know”.

| Item | Average | Consultant | Companies |
|--|------------|------------|-----------|
| Training of management | 4.3 | 4.4 | 4.2 |
| Analysing the company's strengths and weaknesses | 3.5 | 3.9 | 3.2 |
| Training of employees | 3.3 | 3.5 | 3.2 |
| Developing a process model | 3.2 | 3.4 | 3.2 |
| Planning the measures to be taken | 2.9 | 3.2 | 2.9 |
| Motivating employees and moderation process | 2.8 | 3.2 | 2.6 |
| Writing the quality manual | 2.6 | 2.9 | 2.5 |
| Setting goals/ key figures of management system | 2.4 | 2.6 | 2.3 |
| Document procedures | 2.3 | 2.6 | 2.1 |
| Writing of work briefings | 2.1 | 2.3 | 2.0 |
| Developing the company's philosophy | 2.0 | 2.3 | 1.8 |

Figure 22: Functions of Consultants

Only four out of twelve items have scored a result above average. Especially the “training of management” is regarded as a task that should be taken over by professional trainers. This is similarly true for the item “analysing a company's strengths and weaknesses”. As the following five items are close to the average value, it might be assumed that these functions should be exerted by the companies in co-operation with consultants/ professional trainers.

Especially a company's philosophy, document procedures, work briefings and goals/ key figures of a management system ought to be established primarily by the company.

As can be seen in the above figure – and that is hardly surprising – the average evaluations of consultants are in part significantly above the average evaluations of companies. This is especially true for the functions “analysis of strengths and weaknesses” (3.9 compared to 3.5) and “motivation and moderation” (3.2 compared to 2.8).

An international comparison highlights the fact that in eight out of eleven items English consultants and auditors consider the assistance of external service providers to be less

important than German consultants or they agree with them. Only with respect to three functions, which refer to documentation matters, English consultants and auditors recommend assigning them to professionals.

3.3 Management Systems and Innovation

Which effects do the below mentioned management systems have on the company's innovative power, i.e. to generate new products, product range and services?

Scale from 1 (hampers innovation) to 3 (promotes innovation); average: 2. There was also a possibility to choose "do not know".

It has to be stressed that for this question – in contrast to most of the other questions – a scale with only three instead of five answer categories was used. Results significantly above 2,0 or close to 3,0 can therefore be interpreted as a clear vote for the particular item.

As the following figure indicates, a positive effect on the innovative power of a company has been ascribed to all of the listed management systems.

| Item | Average |
|----------------------------------|---------|
| Integrated management systems | 2.8 |
| Quality management systems | 2.6 |
| Environmental management systems | 2.6 |
| Social management systems | 2.4 |
| Work safety management system | 2.2 |
| Hygiene management system | 2.2 |

Figure 23: Management systems and innovative power

The survey presented a rather homogenous picture with respect to the different expert groups and across all three countries. What is remarkable, is that especially IMS are considered to have strong influence on the innovative power of a company.

3.4 Scope of Management Systems

Experts have not yet agreed on the scope of a management system. In your opinion, which elements should be included in the certification?

Scale from 1 (does not make sense) to 5 (does make sense); average: 3. It was also possible to choose "Do not know".

As the following figure indicates, most evaluations are either at or (significantly) above the average. It has to be noticed that the experts called for the certification of individual functions of the company and branch organisations.

| Item | Average |
|---|---------|
| Individual location | 4.0 |
| Branch operations | 4.0 |
| Supply Chain (e.g. producer-transport-merchant) | 3.5 |
| Co-operation (e.g. franchise systems, co-operatives) | 3.3 |
| Individual functions of the company (e.g. storage, sales) | 3.0 |

Figure 24: Scope of management systems

The question of whether individual functions of the company should be certified was answered rather controversially. Results significantly above the average value were achieved in the UK and Sweden (4.1 and 4.2; especially certification bodies in the UK: 4.5). This alternative, however, was considered to be of less relevance in Germany (average value: 2.5, especially certification bodies: 1.8).

An equally controversial topic is the demand for certifying supply chains. Again, results from UK and Sweden (3.7 resp. 3.6) were above those from Germany (3.3). Highest individual result: certification bodies from the UK (4.2). In Germany, companies (3.6) considered this aspect to be of higher importance than consultants and certification authorities (each 3.1).

3.5 Arguments in favour of Management Systems

There are different opinions on whether an IMS is necessary. How would you class the importance of the following arguments in favour of integrating management systems?

Scale from 1 (no importance) to 5 (high importance); average value: 3. There was also a possibility to choose "Do not know".

| Item | Average |
|--|---------|
| Standardised documentation | 4.2 |
| Clear responsibilities | 4.0 |
| Better co-operation between departments | 4.0 |
| Opportunity to introduce process management | 3.9 |
| Higher transparency | 3.9 |
| Goal conflicts can be avoided (more strategic consistency) | 3.8 |
| Lower risks of lawsuits | 3.5 |
| Opportunity to strengthen the company's corporate identity | 3.5 |
| Shorter reaction time of the company | 3.3 |
| The company's innovative power is promoted | 3.3 |

Figure 25: Arguments in favour of integrated management systems

All of the above mentioned items are highly relevant in practice as can be seen by the average assessments, which are in all cases above 3.0.

As figure 24 shows, documentation is the most relevant item, followed by five items which have almost identical results with respect to their average assessments.

In general, optimising internal processes, transparency and the reduction of costs seem to be of higher importance than market-oriented aspects like establishing a clear profile or increasing the innovative power of the company.

Interestingly, all of the four expert groups have arrived at rather homogenous judgements. There are, however, significant differences between the three countries. Especially the items “lower risks of lawsuits” and “better co-operation between departments” can be mentioned in this respect. As can be seen in figure 25, both of these arguments are regarded as much more important in Germany than in the UK and Sweden.

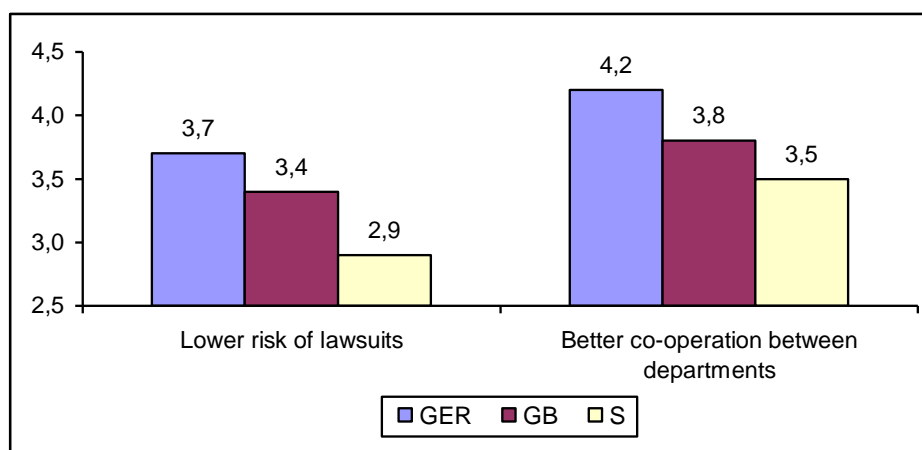


Figure 26: Reasons for IMS in an international comparison

3.6 Arguments against Integrated Management Systems

Below, you will find a list of arguments against an IMS: How important is each of the arguments in your opinion?

Scale from 1 (no importance) to 5 (high importance); average value: 3. There was also an opportunity to choose “Do not know”.

A general overview shows that only “No suitable guidelines for implementation” with an assessment of 3.2 is above the average. Therefore, the experts do not regard any of the listed items as clear arguments against the implementation of IMS.

| Item | Average |
|---|---------|
| No suitable guidelines for implementation | 3.2 |
| Costs are higher than profits | 2.9 |
| Employees oppose changes | 2.9 |
| An IMS promotes bureaucracy | 2.8 |
| IMS is too complex | 2.8 |
| IMS is not sufficiently known/ accepted by the public | 2.8 |
| Many companies only need one system (e.g. QM or EM) | 2.5 |
| ISO-standard for an IMS is missing | 2.3 |
| Goals of the different systems do not harmonise | 2.2 |

Figure 27: Arguments against Integrated Management Systems

However, in contrast to the preceding question in 3.5, there have been significant differences in the evaluation of this question between the expert groups and also between the three countries.

Especially the opinions of certification bodies and companies – most obviously in Germany – contrast each other. The below figure suggests that German companies place a much higher value on the four items “Companies only need one system”, “An IMS promotes bureaucracy”, “Costs are higher than profits” and “suitable guidelines for implementation are missing”.

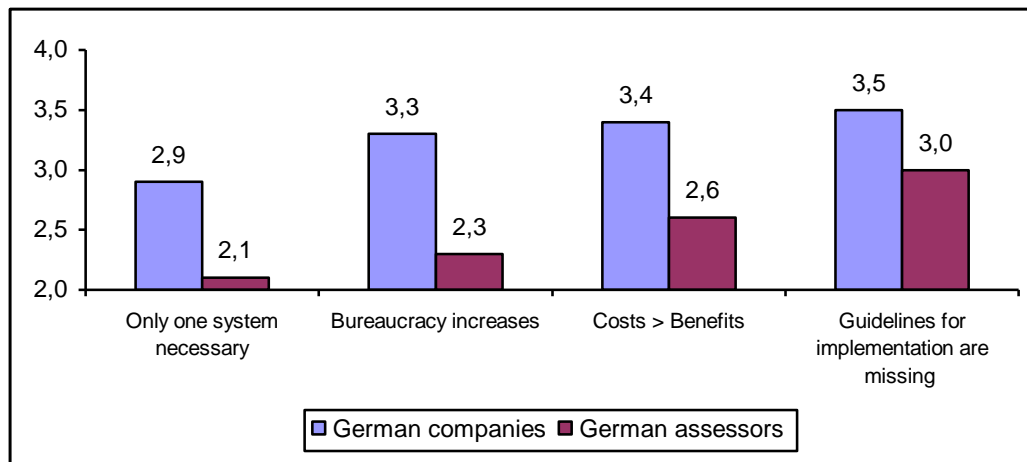


Figure 28: Reasons against an IMS: German companies and assessors in comparison

Overall, certification bodies and – in large parts also consultants – are considering the implementation of IMS in companies to be much more unproblematic than companies themselves.

In addition, differences between the three countries became apparent. In Germany, implementation problems of IMS are of higher concern than in the UK and Sweden. Only the items “goals of different systems do not harmonise” and “ISO-standard for IMS is missing” received a lower attention in Germany. The other seven items received higher results in Germany than in the UK and Sweden (differences ranged from 0.2 to 0.6 and 0.4 to 0.7).

3.7 Areas of Integration

We now assume that the company has decided to build an IMS. Which elements of the company do you think are important for the integration of management systems?

Scale from 1 (no importance) to 5 (high importance); average value: 3. There was also a possibility to answer “do not know”.

All of the items received assessments above the average value of 3.0. This is also true for the individual evaluations from members of the four expert groups in all three countries. This underlines the relevance of all items for the integration of management systems.

| Ranking | Item | Average |
|---------|--|---------|
| 1 | Integrated documentation (one manual) | 4.3 |
| | Integrated goal system | 4.3 |
| | Integrated company philosophy | 4.3 |
| 4 | Integrated documented procedures | 4.1 |
| | Integrated control, esp. key figures | 4.1 |
| 6 | Integrated plan of activities | 4.0 |
| 7 | Integrated work briefings | 3.9 |
| | Integrated training program | 3.9 |
| 9 | Joint audit | 3.7 |
| 10 | Joint certification | 3.6 |
| 11 | All tasks under control of one manager/ department | 3.4 |

Figure 29: Areas of integration

Primary focus is on documentation and strategic management issues (objectives, philosophy and controlling).

Only organisational matters of IMS (tasks of managers/ department) are considered to be of minor importance.

An analysis of differences according to countries or groups of experts exposes a very homogenous picture of the judgements given. As the below figure suggests, only the importance of a company's philosophy and organisation are considered to be of higher importance in Germany (especially within the scope of integrative measures of companies) than is the case in the other two countries (especially UK).

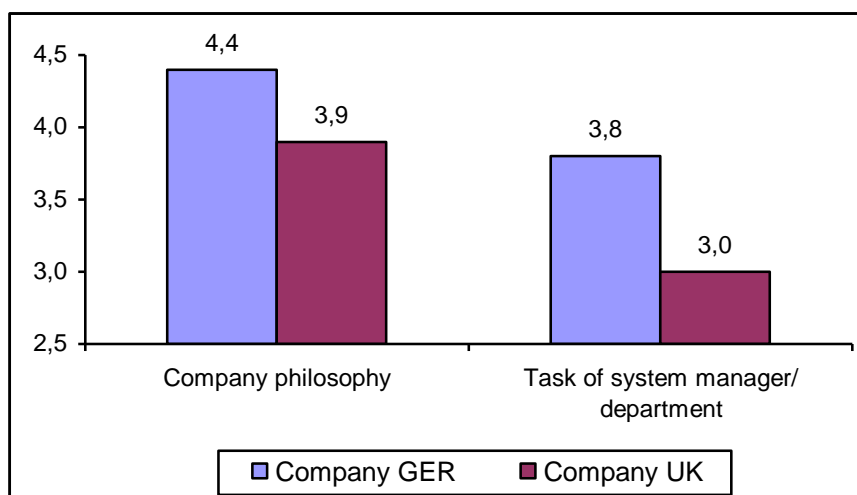


Figure 30: Importance of areas of integration in Germany and the UK

3.8 Features of Integrated Management Systems

There are different opinions on which features an ideal IMS should have. We have listed several features and would like you to tell us what you think of each of the descriptions of an IMS. If you hold the view that both criteria can be fulfilled simultaneously, please tick the box in the middle.

Scale from 1 to 5; average value: 3. There was also a possibility to choose “do not know”.

The experts agreed with regard to three of the eight features: accordingly IMS are “process oriented” (... in contrast to “department-oriented”), “promoting innovation” (... in contrast to “safeguarding the status quo”) and “economic” (... in contrast to “social-ecological”).

The other five results are scarcely below/above the average. The experts obviously did not see the necessity to characterise IMS any further in these points.

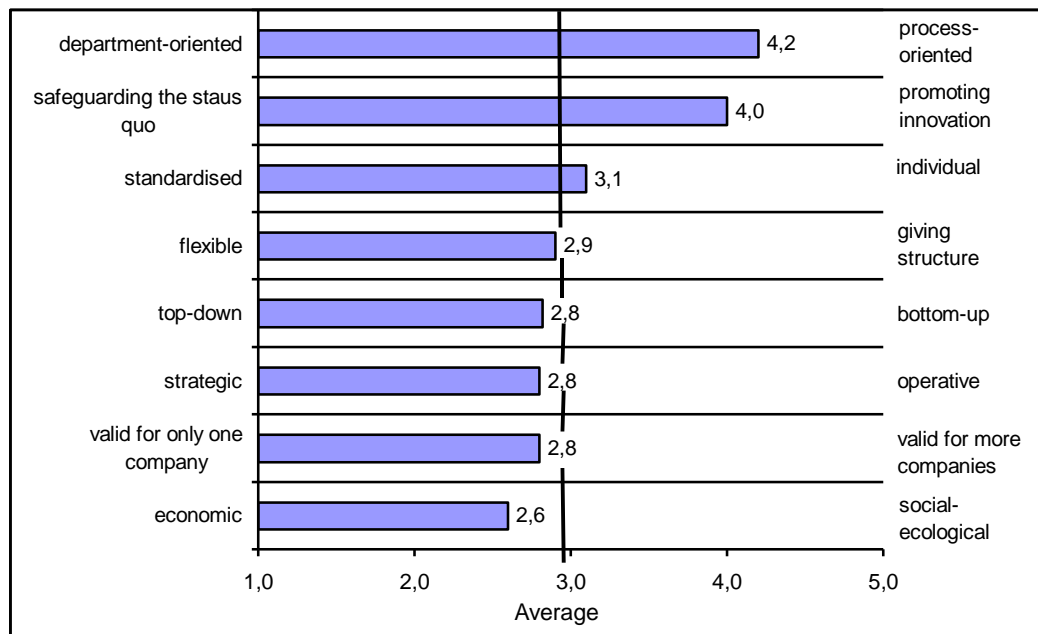


Figure 31: Features of an IMS

The evaluation of the four expert groups showed no significant differences. An international comparison, however, identified four noticeable divergences:

- In Germany, there is a clear trend towards process-orientation (4.3 in contrast to 4.1 in Sweden and 3.8 in the UK).
- Swedish experts consider IMS to be much more operative (3.1) than German (2.7) and English experts (2.8).
- Experts in Germany hold the view that individual IMS, adjusted to the particular company, should be established. (3.3; especially certification bodies: 3.7). The aver-

age values for UK and Sweden (both 2.7) indicate, that experts in these countries are in favour of standardised systems.

- The UK and Sweden stressed the importance of management systems that are applicable in more than one company (e.g. value chain management systems). Average assessments of 3.2 and 3.1 in contrast to 2.6 in Germany underline this.

3.9 Conflict between Customer Satisfaction and Ecological Objectives

We now assume that the implementation of an IMS leads to a conflict between customer satisfaction and ecology. How do you think such conflicts are resolved?

There were four answer alternatives for this question: “in favour of customer satisfaction”, “in favour of ecology”, “a compromise is reached” and “do not know”. As the figure below presents, 42% of all experts assume that this conflict is solved in favour of customer satisfaction while 35% of all experts suspect that a compromise will be reached. 18% suppose, that a solution in favour of ecology will be found and the remaining 5% of all experts do not know.

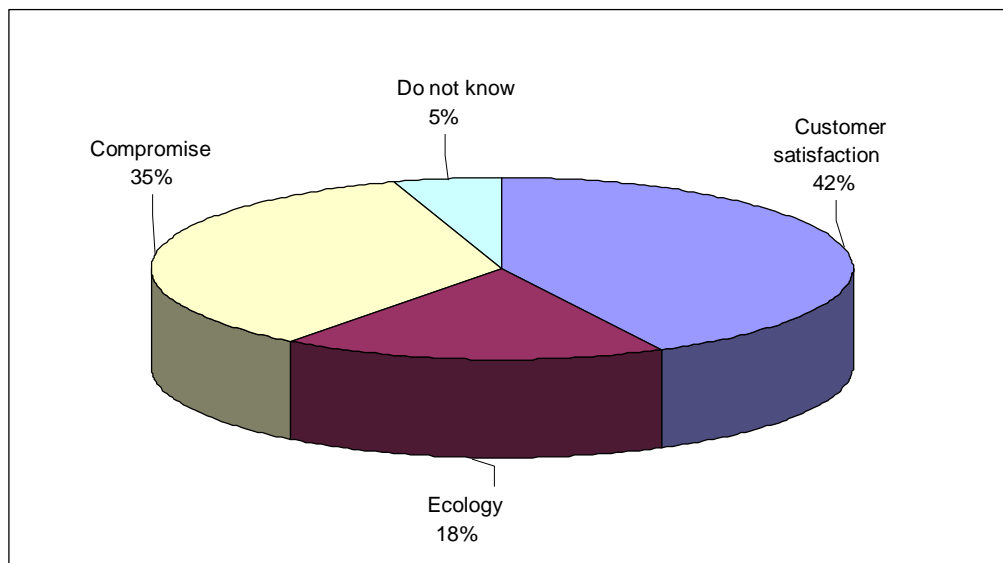


Figure 32: Conflict between customer satisfaction and ecological objectives

A detailed analysis of the results in each expert group and country unveiled striking differences in the evaluation:

A disproportionately high share of academics (65%) hold the view that the conflict will be resolved in favour of customer satisfaction. 18% of votes in favour of an ecological solution are given – somewhat surprising – almost entirely by the group of consultants, which assume in 51% (UK: 64%!) of all cases that this conflict will be resolved in favour of the environment. In contrast, votes from certification bodies (0%), companies

(3%) and academics (3%) were close to zero. These three groups could imagine to reach a compromise in such cases.

Looking at national differences, customer satisfaction predominates in Germany (59% in contrast to 25% in the UK and 35% in Sweden), while in the UK resolutions in favour of ecology predominate (53% in contrast to Germany and Sweden with both 13%). Swedish experts predominantly think that compromise will be reached (47% in contrast to 32% in Germany and 37% in the UK).

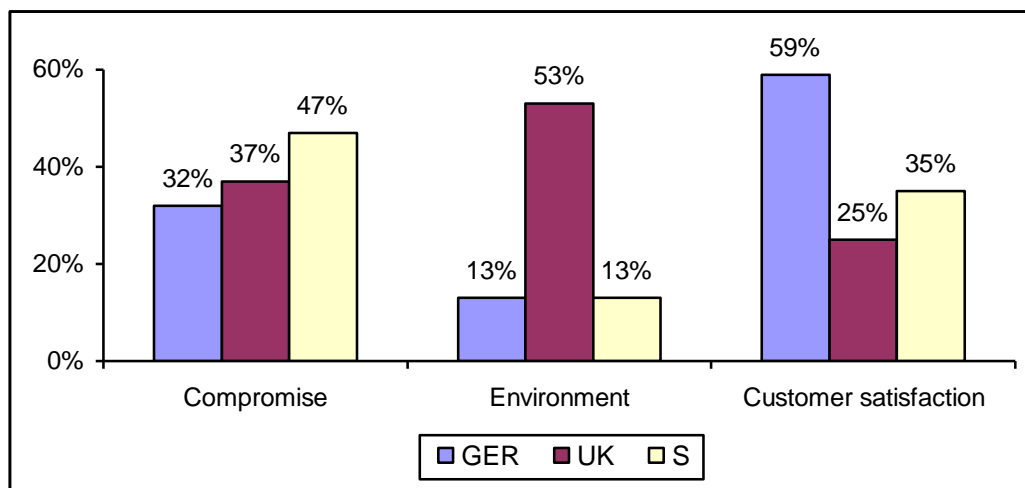


Figure 33: The resolution of conflicts between IMS-objectives according to countries

3.10 Models for IMS

We now list several management models of ranging popularity. To what extent are these models suitable to form the basis of an IMS?

Scale from 1 (not suitable) to 5 (very suitable); Average: 3. There was also a possibility to answer "Do not know".

Among the introduced management models, the ISO 9001 : 2000 standard, the EFQM-model and ISO 14001 are regarded as most suitable for building an IMS. EMAS 2000, SCC, ISO 9000 standards : 1994 and especially EMAS 1993 received only average and below average assessments.

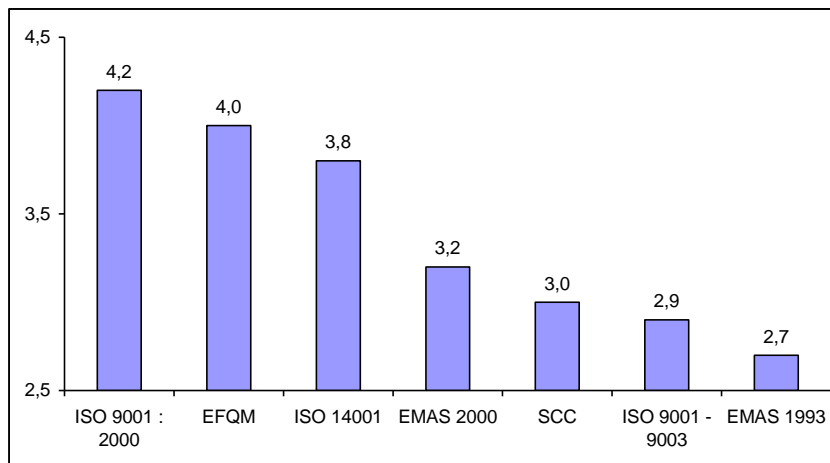


Figure 34: Suitability of the models for the evaluation of IMS

A closer look at the different expert groups shows that especially companies consider the old ISO 9001 - 9003 standards to be suitable to form a basis for IMS (3.1 in contrast to 2.6/ certification bodies and 2.2/ academics). In comparison, certification bodies regard ISO 14001 as a very good model for the standardisation of an IMS. Finally, companies are judging the EFQM-model in a much more positive way than certification bodies (4.2 in contrast to 3.8).

There are also differences in a comparison by countries. While from the point of view of German experts the EFQM-model is disproportionately suitable to build the basis for an IMS (4.1 in contrast to 3.9 in the UK and 3.6 in Sweden), SCC is considered to be more suitable in the UK (3.5 in contrast to 2.9 in Germany and 3.1 in Sweden) and the ISO 9001 : 2000 and 14001 standards are considered more suitable in Sweden (4.5 and 4.4 in contrast to 4.2 and 3.7 in Germany and 4.1 and 4.0 in the UK).

It was, however, important to find out to what extent the experts were familiar with these models. The following figure presents the results.

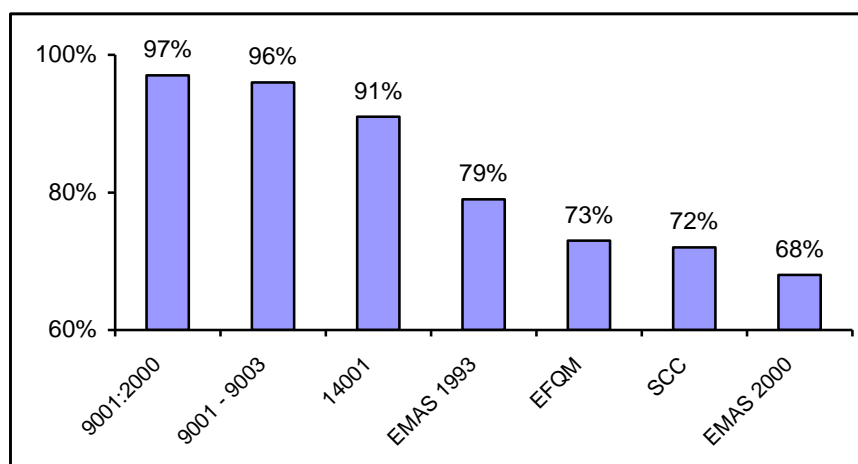


Figure 35: Experts' familiarity with management models

Rather expectedly, significant differences between the expert groups could be identified. Quite a number of companies were not familiar with the mentioned models - with the exception of the ISO quality standards from 1994 and 2000. The difference in familiarity in comparison to certification bodies ranged from 17% to 34% as the following figure presents.

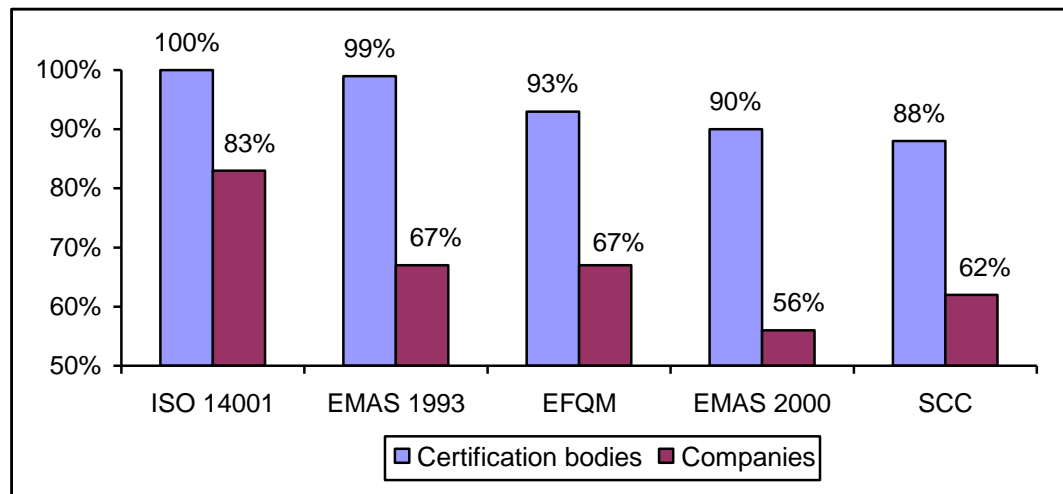


Figure 36: Familiarity of the models in comparison: certification bodies and companies

An international comparison highlighted the high degree of familiarity of the ISO 14001 (100%), EMAS 1993 (90%) and EMAS 2000 (83%) standards in Sweden. In contrast, the EFQM-model is especially well-known in Germany (80% in contrast to 74% in the UK and 69% in Sweden). The same is true for the work safety model SCC (78% in contrast to 58% in the UK and 63% in Sweden).

3.11 IMS Standard

How important is a standard for an IMS in your opinion?

Four alternatives were given: “necessary”, “desirable”, “superfluous” and “do not know”. 50% of all surveyed experts regarded an IMS-norm as desirable, 18% even as necessary. In contrast, 25% of all experts think of such a standard as superfluous.

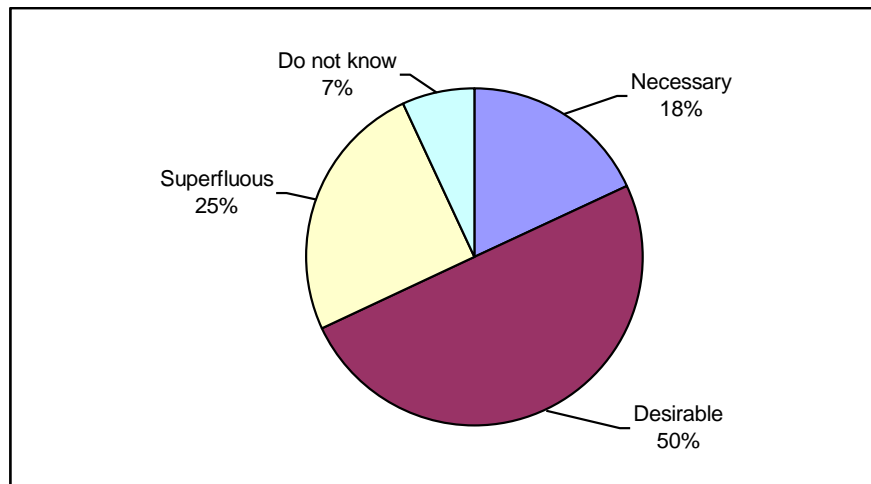


Figure 37: Importance of an IMS norm

Again, there are significant differences between expert groups and countries. In the figure below, the items “necessary” and “desirable” have been combined to a judgement in favour of an IMS norm and contrasted with the negative judgement “superfluous”. The table shows that companies – compared to certification bodies – have a much higher opinion of IMS than the other experts (72% in contrast to 59%). Moreover, English experts have a much more positive attitude (81%) towards an IMS norm than Swedish (73%) and German experts (63%).

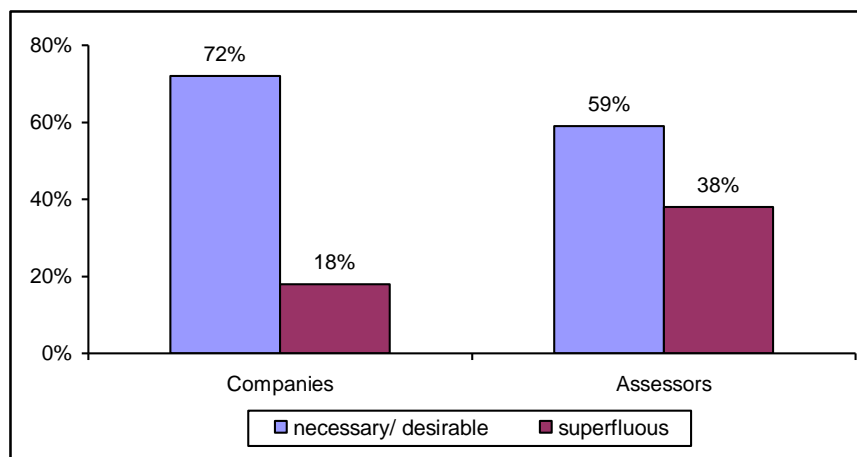


Figure 38: Approval/ disapproval of an IMS norm

3.12 Perspectives of IMS

Would you agree to the following thesis: “In 10 years from now, there will not be any isolated management systems, e.g. for quality and environment anymore. Companies will only be building IMS by then.”

A predominant share of 55% of all experts agrees with this thesis while only 32% disagree.

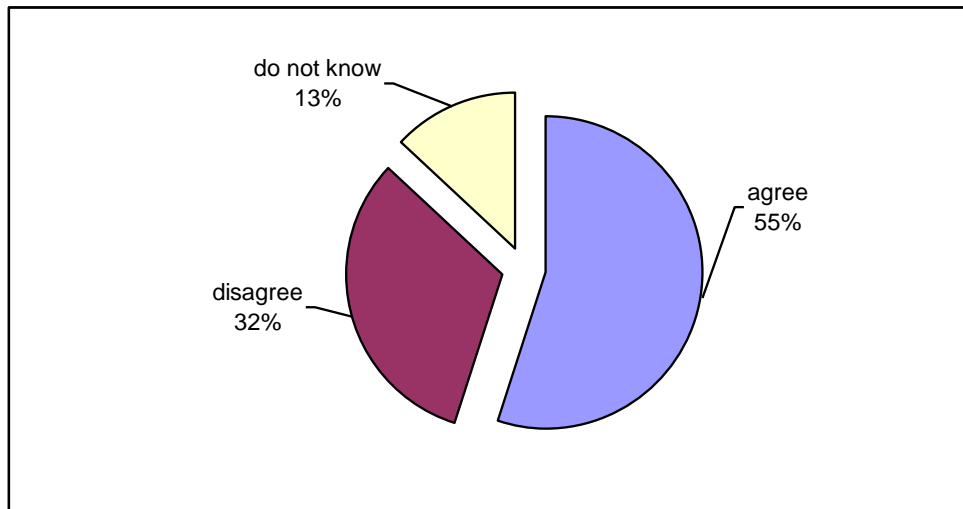


Figure 38: Importance of an IMS norm

The individual assessments present a rather homogeneous picture. The highest approval rate can be found among Swedish companies (72%) while consultants in all three countries rather disapprove (40%).

4 Company Questions

The questionnaire contained six questions that were only to be answered by the group of companies. These questions surveyed the companies' individual experiences with management systems that they had already implemented and their attitude towards IMS. The following part of the report presents the average assessment of the items. A differentiated analysis of the results in each country has only been carried out if there is a significant deviation from the total average of the survey.

4.1 Implemented resp. Planned Management Systems

Please tell us according to which models the management system in your company was implemented/certified or whether the introduction of such a system is planned during the next two years at all.

Figure 38 shows that there is a correlation between the acceptance and level of implementation of the individual issue management system and the point of time when the discussion of the issue has begun in practice. Quality management has gained widespread acceptance and the highest level of implementation, followed by environmental management and occupational health and safety management. Hygiene and social management systems have until now only rarely been implemented.

| | not planned | planned | implemented | certified |
|------------------------------|-------------|---------|-------------|-----------|
| Quality Management | 4% | 6% | 4% | 86% |
| Environmental Management | 38% | 20% | 6% | 37% |
| Health and Safety Management | 47% | 19% | 25% | 10% |
| Hygiene Management | 82% | 6% | 8% | 4% |
| Social Management | 86% | 8% | 4% | 3% |

Figure 39: Level of implementation of individual management systems

A comparison of the results in the three countries shows that there are significant deviations from the average assessments presented above. Figure 39 therefore additionally presents a ranking of the acceptance and the level of implementation of the individual issue management system in each country. The results of the answer categories "system is planned", "system is implemented" and "system is certified" are summarised in one category.

| planned, implemented or certified system: | Rank 1 | Rank 2 | Rank 3 |
|--|---------------|---------------|---------------|
| Quality Management | UK (98%) | GER (97%) | S (91%) |
| Environmental Management | S (100%) | UK (73%) | GER (48%) |
| Health and Safety Management | UK (73%) | S (63%) | GER (44%) |
| Hygiene Management | UK (35%) | S (25%) | GER (12%) |
| Social Management | S (30%) | UK (29%) | GER (7%) |

Figure 40: Level of implementation in the three countries

These results clearly indicate that the level of implementation with respect to quality management will shortly be approaching 100%, assuming that the management systems that are being planned will be successfully implemented in future. In the trade and service sector, too, the necessity and the benefit of a quality management system apparently is no longer questioned.

On average, the implementation of environmental management systems, too, is on an advanced level. The implementation level in Swedish companies is remarkable: In this country, every company surveyed has implemented an environmental management system and 93% of these have been certified. In contrast to this, the level of implementation in German companies is very low (48%). More than half of the German companies that have been surveyed have not yet informed themselves intensively about environmental management systems.

Occupational health and safety management systems, too, by now have gained wide acceptance at least in Britain and Sweden. Again, the attitude of German companies is less positive.

Compared with other management systems, the acceptance of hygiene and social management systems is low in all three countries. In the light of the present developments (BSE, Foot and Mouth Disease), however, it can be assumed that management systems, especially those that cover food hygiene, will be more widely implemented in the near future. The acceptance of social management already is quite high considering that this issue has only come up very recently.

The results thus show quite clearly that German companies display a comparably defensive attitude towards management systems: In four out of five items, they are only in position three, lagging a long distance behind Britain and Sweden. Britain has the most progressive attitude, with Sweden following closely.

In order to increase the validity of their statements, the companies have additionally been asked to specify on which management models they have based their planned, implemented or certified systems.

There were 264 answers with regard to quality management, 256 (97%) of which referred to the ISO 9000 standards. The model which has been used by the majority of companies is ISO 9001 (58%), followed by ISO 9002 (37%). The remaining 3% of the companies surveyed have based their systems on other models like ISO 9003, VDA 6.1 and QS 9000; each of these models, however, has only been mentioned once. What is remarkable is that the EFQM model does not play any role at all as a basis for a quality management system.

There were 98 answers on environmental management models, 98% of which referred to the ISO 14001 standard. EMAS was only mentioned in 7% of all answers.

As a basis for occupational health and safety management systems, only SCC was used by a significant number of companies (23%). A few companies have based their system on one of the following models: OHSAS 18001, ATS 1996 : 6, BS 8800, ISA 2000.

An equally small number of companies have based their hygiene resp. social management system on the following models: HACCP (5), I.i.P.-Investors in People (4) and SA 8000 (3).

In addition to the issues quality, environment, occupational health and safety, hygiene and social aspects, the company representatives were asked to indicate further issue management systems that they have planned or implemented. It is quite remarkable that several companies mentioned the EFQM model in this context, which they apparently do not classify as a quality model.

4.2 Involvement in Co-operations

Are important functions in your company exercised wholly or partly in co-operation with other companies (e.g. membership of franchise or compound systems, co-operative logistics concepts)?

If you have ticked YES, to what extent are functions exercised in co-operation with other companies?

Scale from 1 (not at all) to 5 (completely); Average: 3

The companies' management systems also have to take into account existing co-operative activities.

In total, 37% of the companies surveyed stated that they partly exert individual functions in co-operation with other companies, 63% answered in the negative. Figure 41 gives an

overview of which functions in the company are exerted co-operatively and indicates the extent of the co-operation.

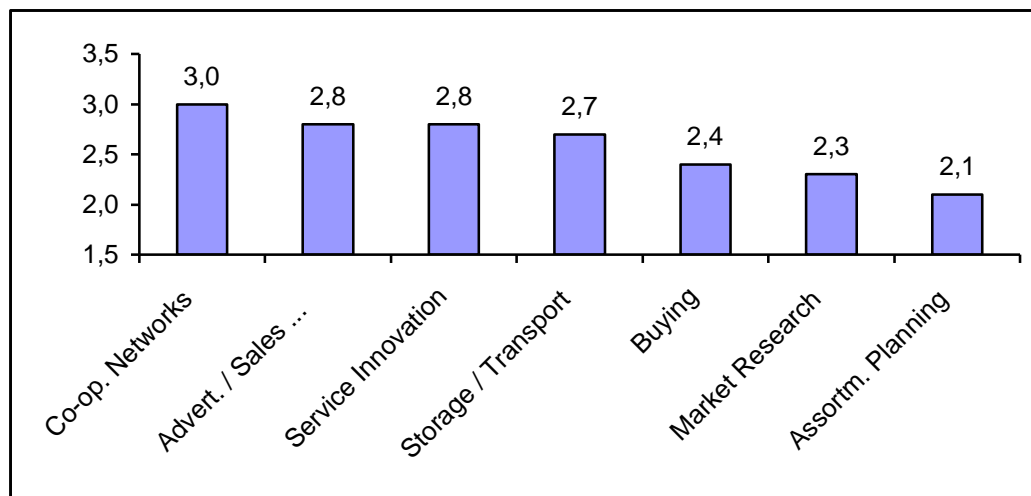


Figure 41: Extent of co-operative functions

As can be seen in this figure, co-operations do not play an important role in any of the above processes. No item has achieved a result above average. The work in co-operative networks has been mentioned most often, followed by joint advertising / sales promotion and the co-operative generating of service innovations.

A closer look at the results in each country reveals that hardly any significant deviations from the average assessment can be identified. Sweden is the only exception: The co-operative generating of service innovations in this country (2,1) is distinctly less important than in any of the other countries.

4.3 Process Orientation

Have you personally already informed yourself about process orientation of management systems?

If you have ticked YES, is your management system based on a process model?

On average, 75% of all company representatives have already sought information about process orientation. Comparing the results in the three countries, Germany and Sweden do not deviate significantly from the total average (see Figure 42). In Britain, however, only less than half of the company representatives that have been interviewed have informed themselves personally about process orientation.

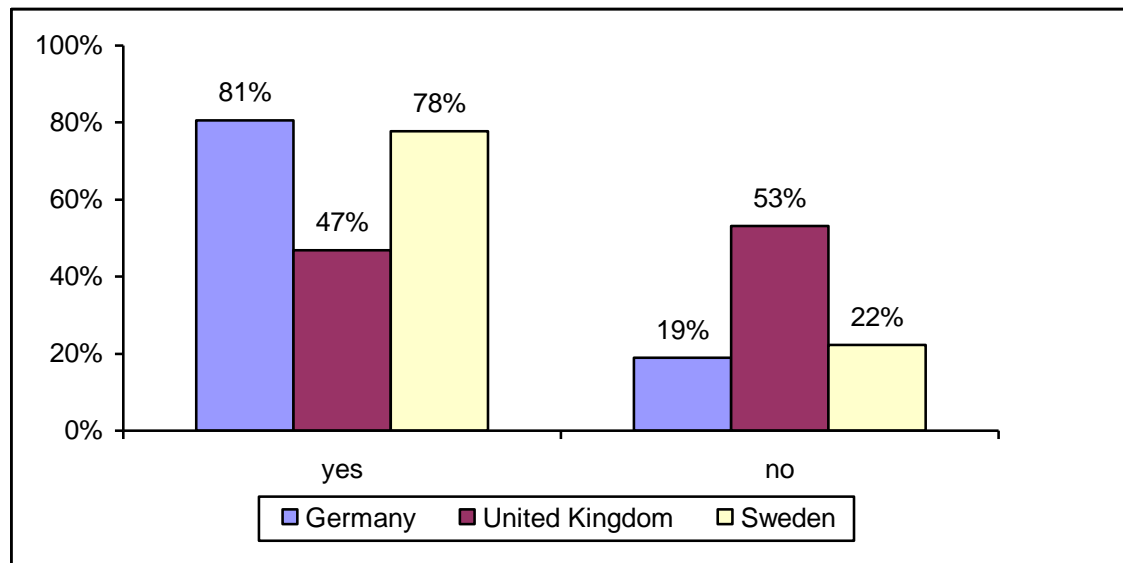


Figure 42: Share of companies that have informed themselves about process orientation

The companies that have already informed themselves about process orientation were additionally asked whether their management system is based on a process model, whether this is being prepared or considered as not suitable. In total, 81% of these companies answered that their management system was either based on a process model or that this was being planned in future. Surprisingly, no national particularities could be identified.

4.4 Level of Implementation of IMS

The integration of management systems is currently under controversial discussion. What is your company's attitude towards the implementation of an integrated management system?

In order to evaluate the validity of the results, it was especially interesting to find out how many of the companies surveyed already have an integrated management system, resp. plan to implement one in the near future.

On average, 45% of the companies surveyed have already implemented an IMS or plan to introduce one. It is necessary to pay attention to the national differences in the results (see figure 43), because the results differ significantly especially between Germany and Sweden.

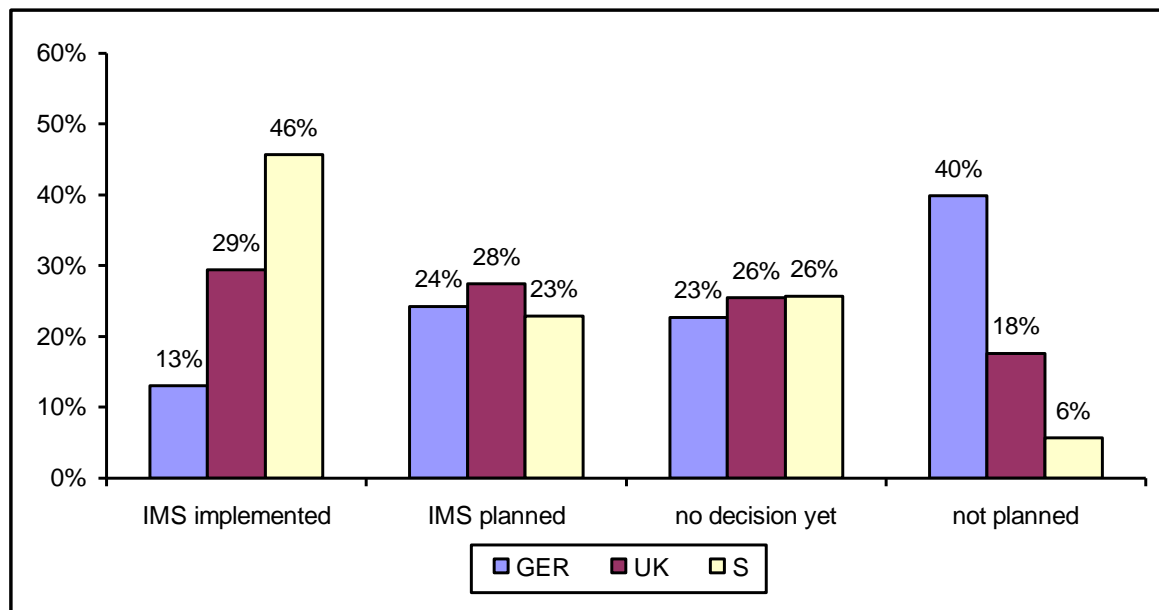


Figure 43: IMS – Level of implementation

The Swedish companies are very progressive with regard to IMS implementation. Already 46% of the companies surveyed have an IMS, another 23% are planning to implement one. In addition, only 6% of the Swedish companies do not plan to have an IMS.

The trend in German companies points in the opposite direction. 40% of these are against implementing an IMS. Only 37% have already implemented an IMS or are planning to do so.

In contrast to this, the British companies in total do not clearly accept or reject IMS. All items have been ticked by a significant number of companies, hence no further conclusions can be drawn on the basis of the results.

On the whole, the results indicate that integrated management systems are an important issue in practice and will be more widely implemented in future.

4.5 Integrated Systems

Your company is planning an IMS or has already implemented one. Which management systems have you integrated or want to integrate?

Beyond the level of implementation, it is very interesting to see which contents are being integrated in the companies surveyed. This question therefore only had to be answered by those companies that either had already implemented or plan to implement an IMS according to the preceding question.

The following figure shows which systems have been included in an IMS on average. The individual results in each country partly deviate significantly from the total average, but the presented ranking of the individual systems is still absolutely valid. It has to be noted that, in Sweden, quality and environmental management have an equally important position (95.5%) within the IMS of the companies surveyed.

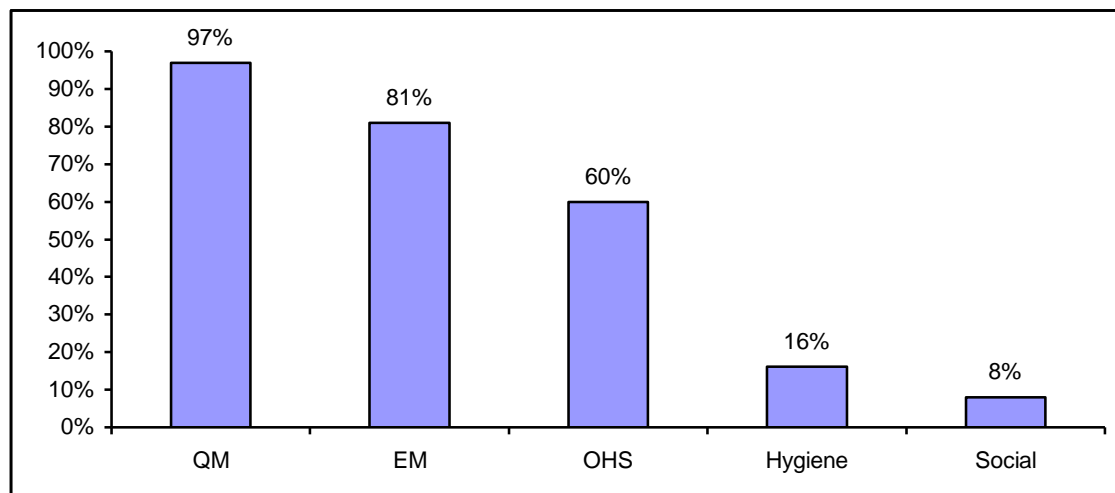


Figure 44: Contents of an IMS

In the light of these results, it was also important to find out which kinds of issue management systems are combined in an IMS most often. Across all countries, we received a total of 115 answers, which allowed an analysis with regard to the combination.

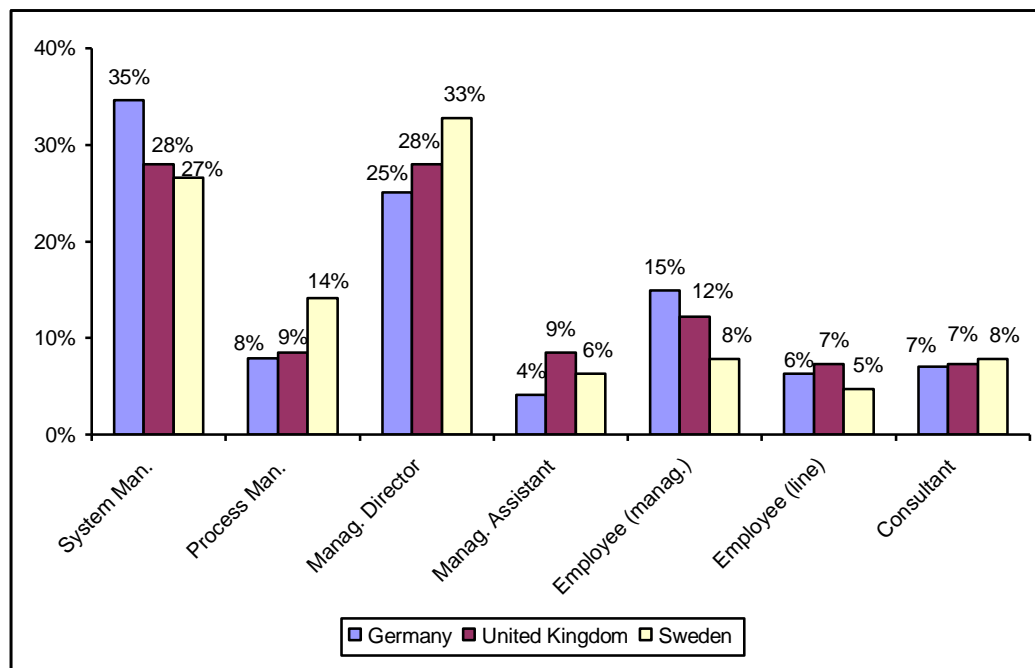
The combination of quality, environmental and occupational health and safety management was mentioned most often (35%), followed by quality and environmental management (34%). Besides, 9% of the companies surveyed have integrated quality and occupational health and safety, 6% quality, environmental, OHS and hygiene. All other management systems were only mentioned by a single company. Four companies have achieved a remarkable result in this context: they have implemented an IMS that includes all listed management systems (quality, environment, occupational health and safety, hygiene and social management).

As a result, it can be concluded that the companies regard quality management as a fundamental part of IMS. Only two companies stated that their IMS does not include quality management.

4.6 Areas of Responsibility

Your company has implemented resp. plans an IMS. Who is mainly responsible for the implementation of the IMS? (You can tick several answers.)

The positions that have been mentioned most often are the system manager and CEO of the company. The managing employee, too, is comparatively important, followed by the process manager. The percentage results in the three countries differ significantly in some cases; the following figure 45 therefore presents a differentiated analysis of the results in each country.



Figures 45: Positions responsible for the implementation of an IMS

Since it was possible to tick several answers, it was not only interesting to find out how often a position was mentioned, but also which areas of responsibility usually co-operate when implementing and operating an IMS. Figure 46 gives an impression of the areas of responsibility which co-operate (the most frequent answers have been shaded). Because the “process manager”, the “managerial assistant” and the “employee in the line” were mentioned only in very few cases, they were not included in the table.

| System Manager | Managing Director | Managing Employee | Consultant | Number of Answers |
|----------------|-------------------|-------------------|------------|-------------------|
| | | | | 30 |
| | | | | 27 |
| | | | | 24 |
| | | | | 16 |
| | | | | 10 |
| | | | | 10 |

Figure 46: Positions responsible for the implementation of IMS

5 Question to Consultants, Certification Bodies and Companies (Auditing)

One question was addressed especially to consultants and certification bodies as well as company representatives. They were asked to give an assessment of external (certification) audits.

Certifying authorities are free to emphasise different aspects of management systems in the audit. According to your experience, to what degree are the following aspects examined during the certification process?

The interview partners could choose among the following answers. The corresponding terms in the brackets are used in the table below:

- management documentation (chart: documentation)
- management support (chart: MS)
- commitment of the employees (chart: employees)
- continuous improvement process (chart: CIP)
- strategic goals of the management system (chart: strat. goals)
- legal compliance (chart: compliance)

The scale ranged from 1 (not examined) to 5 (high intensity of examination); average: 3. In addition, the interview partners could explicitly not answer the question (“do not know”).

The results are presented in figure 47. What is remarkable is that the company representatives and consultants both hold the view that a certification audit focuses on the management documentation. The certification bodies themselves consider this topic to be important (result = 3,9), but comparatively less important than other areas.

Apart from these differences, all three groups give high priority to examining whether the system is sufficiently supported by the top management and whether a continual improvement process has been introduced. These aspects are followed by the involvement of the employees, the management objectives and legal compliance.

With the exception of the documentation, the certifying authorities have given higher priority to all items than the company representatives and consultants.

The share of interview partners who were not able to answer the question (“do not know”), was the highest (about 4%) with the consultant group, followed by the company representatives (about 2%) and the certification bodies (about 1%).

| Group | Rank 1 | Rank 2 | Rank 3 | Rank 4 | Rank 5 | Rank 6 |
|-------------------------|----------------------|------------|------------------|--|---------------------------------|----------------------|
| Company Representatives | Documentation 4.2 | CIP 3.6 | MS 3.4 | Employees 3.3 | Compliance, Strat. Goals 3.2 | |
| Consultants | Documentation 4.4 | MS 3.3 | CIP 3.2 | Employees, Compliance, Strat. Goals 3,0 | | |
| Certification Bodies | MS 4.6 | CIP 4.4 | Employees 4.3 | Strat. Goals 4.2 | Compliance 4.1 | Documentation 3.9 |

Figure 47: Focus of Certification Audits

6 Questions to Consultants and Certification Bodies (Contents of IMS)

Consultants and certifying authorities were asked one exclusive question, which dealt with their client experiences.

Please indicate the areas which are most frequently included in your clients’ IMS.

The interview partners could choose among the combinations “quality and environment”, “quality and occupational health and safety”, “environment and occupational health and safety” and “quality, environment and occupational health and safety” and were able to explicitly not answer the question (“do not know”). They could give several answers.

Figure 48 presents the percentage distribution of all answers for the individual groups and countries. The consultants and certification bodies have given similar assessments in Germany and the UK.

The results show that, in Germany and Sweden, about half of all integrated management systems include the issues quality and environment. About 20% have integrated quality and occupational health and safety and more than one quarter of their clients have even integrated all three areas.

In the UK, the answers are distributed evenly with a third of the clients having integrated “quality and environment” resp. “quality and occupational health”. Just as in Germany and Sweden, about one quarter of the clients have integrated all three areas. The combination “environment and occupational health”, however, does not play an important role.

| Integr. Areas: | Q+E | Q+OHS | E+OHS | Q+E+OHS |
|-----------------------------|--|--------------|--------------|----------------|
| Germany | | | | |
| Consultants | 46.1 | 21.3 | 4.3 | 28.4 |
| Certification Bodies | 52.3 | 14.0 | 8.1 | 25.6 |
| United Kingdom | | | | |
| Consultants | 34.7 | 26.3 | 13.7 | 25.3 |
| Certification Bodies | 33.3 | 37.5 | 4.2 | 25.0 |
| Sweden | | | | |
| Consultants | 53.3 | 20.0 | 0.0 | 26.7 |
| Certification Bodies | Not enough interview partners to allow a differentiated analysis | | | |

Q = quality management, E = environmental management, OHS = occupational health and safety

Figure 48: Extent of Integration

7 Questions to Consultants, Certification Bodies and Academics

The questionnaire included five questions that were addressed to consultants, certification bodies and academics. The results are summarised below.

7.1 Influence of the Company’s Business Sector on the Implementation of Management Systems

Many experts hold the view that quite a number of problems that are raised when introducing a management system are due to the special features of the business sector the company is involved in. Would you agree to this thesis?

Scale from 1 (Implementation problematic) to 5 (implementation not problematic); average: 3. The interview partners could also tick the item “The business sector does not have an influence”.

The following figure 49 shows that all three groups consider the implementation of management systems to be least problematic in producing companies. A significant share of the interview partners (about one quarter) does not believe that the business sector has any influence on the implementation of management systems.

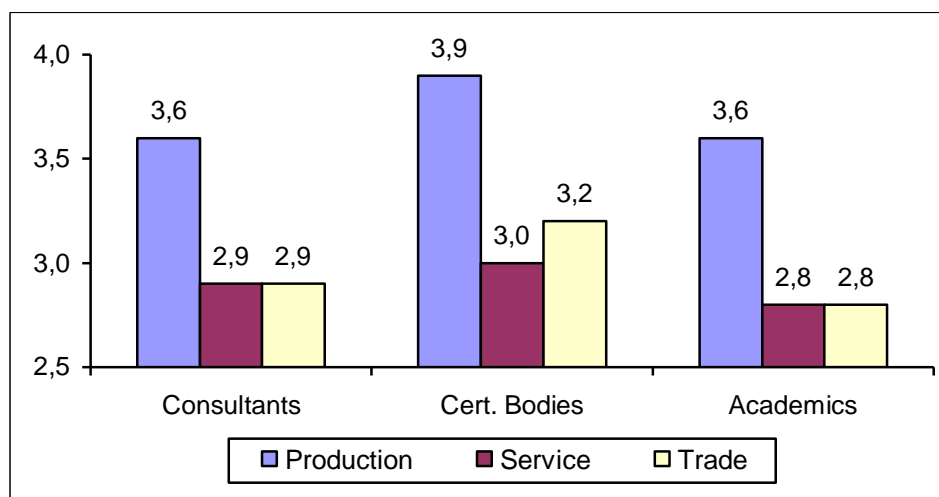


Figure 49: Influence of the business sector on the implementation of Management Systems

The implementation in trade and service companies is considered to be more difficult, although the absolute figures show that significantly less than 50% of the consultants, certification bodies and academics ticked the items “very problematic” resp. “rather problematic”. Hence, the interview partners could not identify a general barrier to the implementation of management systems in this business sector. Figure 50 illustrates this aspect.

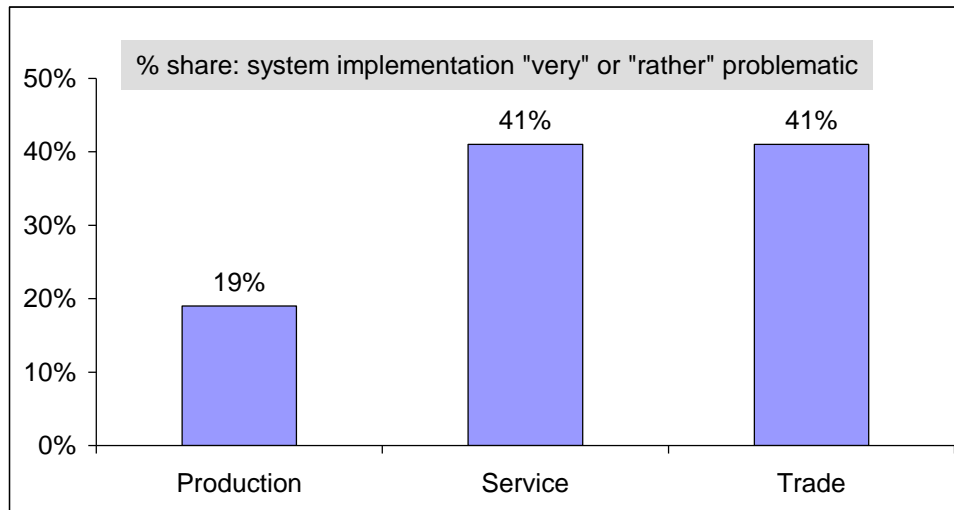


Figure 50: Implementation problems depending on the business sector

7.2 Influence of the Company Size on the Implementation of Management Systems

Do the number and kind of problems encountered depend on the size of the company?

Scale from 1 (Implementation problematic) to 5 (Implementation not problematic); Average: 3. The interview partners could also tick the item “company size does not have an influence”.

Figure 51 shows that the interview partners consider the size of the company to have more influence on the implementation of management systems than the business sector. Only about 10% do not think that the company size has any influence at all.

| | Very Small Companies | Small Companies | Medium-Sized Companies | Big Companies | No Influence |
|----------------------|----------------------|-----------------|------------------------|---------------|--------------|
| Consultants | 2.6 | 3.1 | 3.4 | 3.2 | 10% |
| Certification Bodies | 2.6 | 3.3 | 3.7 | 3.3 | 12% |
| Academics | 2.1 | 2.7 | 3.5 | 3.1 | 3% |

Figure 51: Influence of the company size on the implementation of management systems

However, a simple correlation between the implementation and the company size (the bigger, the less problematic) cannot be identified on the basis these results. All three groups rather think that the implementation in a medium-sized company is the least problematic, while the number of problems increases with the size of the company. Figure 52 illustrates this aspect. Here, the answer categories “very problematic” and “rather problematic” are presented as one category.

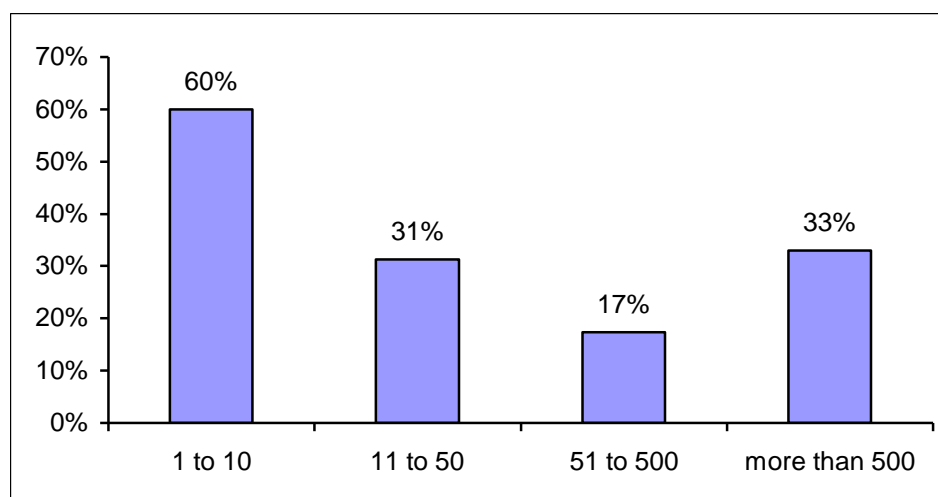


Figure 52: Implementation problems due to company size

7.3 The ISO 9001 : 2000 Process Model

The new ISO 9001 : 2000 draft is based on a process model. To what extent do you think this model can be applied to trade and service companies?

As a basis for a process management in trade and service companies, the model is ...

Scale 1 (not suitable) to 3 (very suitable); average 2 (suitable if small adjustments are made). The interview partners could also explicitly not answer the question (“do not know”).

The majority of the consultants and certification bodies who took part in the survey considered the ISO 9001 : 2000 process model to be very suitable. Half of the interview partners in the research group identified a need for adjustment (figure 53), one out of five in this group could not give an answer.

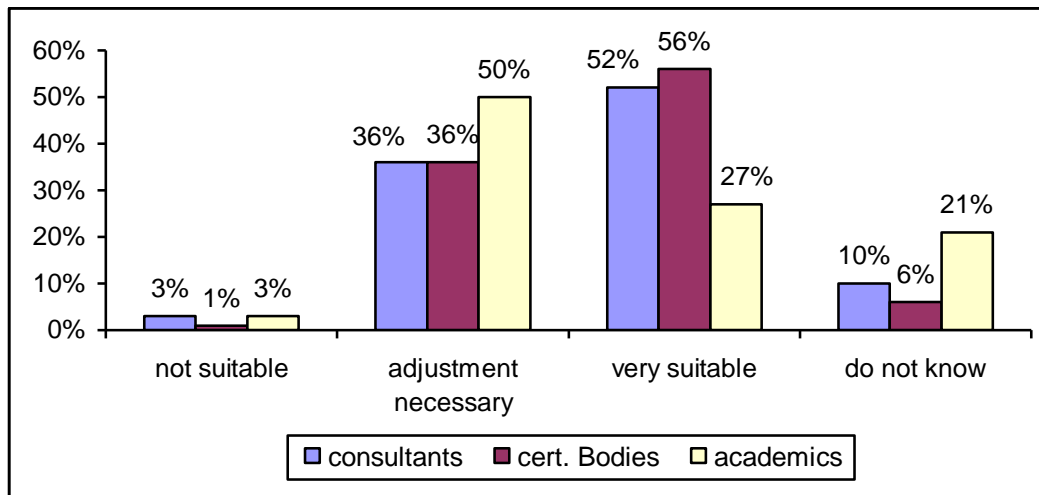


Figure 53: Suitability of ISO 9001 : 2000 for trade and service companies

7.4 Problems of ISO 9001 : 2000 Implementation

When implementing ISO 9001:2000 in trade and service companies, do you think that the following factors might lead to problems?

The interview partners could either confirm (“agree”) or refute (“disagree”) the individual statement. Besides, they could explicitly not answer the question (“do not know”).

The following aspects were listed:

- the terminology is not applicable to trade and service companies
- the special features of branch operations are not sufficiently considered
- the importance of supply processes for the assortment policy in trade companies is not taken into account
- the importance of the customer is not sufficiently considered
- the importance of the employees is not sufficiently considered

Because only very few answers from Sweden and from the academics group could be evaluated, the following analysis is based on the answers only from consultants and certification bodies from Germany and Britain.

The results display a sharp contrast between the assessments of the interview partners in the two countries. Within the countries, however, the consultants and certification bodies have given a rather homogenous assessment.

What is remarkable is that German interview partners identify significantly fewer potential problems than the British (figure 54). The majority of the German experts did not consider any aspect to be problematic, with the exception of branch organisation (exactly 50% of the answers).

| | Germany | | United Kingdom | |
|------------------------|-------------|----------------------|----------------|----------------------|
| | Consultants | Certification Bodies | Consultants | Certification Bodies |
| | [agree: %] | [agree: %] | [agree: %] | [agree: %] |
| industrial terminology | 37.8 | 29.8 | 63.6 | 71.4 |
| branch organisation | 47.3 | 40.4 | 69.8 | 50,0 |
| assortment policy | 43.9 | 43.5 | 77.8 | 58.3 |
| customer | 13.5 | 6.9 | 90.6 | 92.3 |
| employee | 18.9 | 8.8 | 79.7 | 71.4 |

Figure 54: Implementation Problems of ISO 9001:2000

Looking at the ranking of the listed items, significant national differences can be identified. British interview partners considered the aspect “importance of the customer” to be the biggest problem when implementing ISO 9001 : 2000 beside “involvement of the employee”. German interview partners thought that especially this item was the least problematic of all.

In the British group, the views of consultants and certification bodies differ with regard to whether the new standard sufficiently takes into account branch organisation and assortment policy. The British consultants identify significantly more potential problems than the British consultants.

7.5 Implementation Level of Integrated Management Systems

The integration of management systems is currently undergoing a controversial discussion.

How many of your clients do have an IMS? (wording for consultants certification bodies) How many companies do you think already have an IMS? (wording for academics)

The interview partners were asked to indicate percentage shares of companies that have the corresponding “IMS status”:

- IMS is already implemented
- IMS is being planned
- IMS is not planned
- have not been involved with IMS up to now

The results of this question show that all interview partners are of the opinion that the majority of companies have not yet been involved with IMS up to now. Companies that already have implemented an IMS are in the minority. However, consultants, certifying authorities and research representatives believe that many companies are planning to integrate their systems.

8 Question to Academics

8.1 Theoretical Approaches as a Basis for an IMS

Which theoretical models are suitable to form the basis of an IMS in your opinion?

Scale from 1 (not suitable) to 5 (very suitable); average: 3.

With the exception of the decision and behavioural theory, all listed items scored significantly above average. Process theory and TQM are regarded as being most influential on IMS.

| Rank | Item | Average |
|------|-----------------------------|---------|
| 1 | Process Theory | 4,1 |
| 2 | Total Quality Management | 4,0 |
| 3 | Learning Organisation | 3,6 |
| 4 | System Theory | 3,5 |
| 5 | St. Gallen Management Model | 3,4 |
| 6 | Knowledge Management | 3,3 |
| 7 | Organisational Theory | 3,3 |
| 8 | Change Management | 3,3 |
| 9 | Decision Theory | 2,9 |
| 10 | Behavioural Theory | 2,8 |

Figure 55: Theoretical Models for an IMS

Considering that the employees are of great importance for the success of the management system, it is rather surprising that the behavioural theory is not given very much attention. The perceived importance of organisational theory, too, is very low considering that management systems mainly deal with issues of a company's organisation structure.

8.2 Areas and Need for Research

The participating academics were asked - in a non-standardised question - to state their areas of research and the most urgent need for further research with regard to IMS.

With regard to their **own areas of research**, most academics mentioned particular management systems resp. models. Above all: “environmental management” in connection with “sustainable development”. Several academics mentioned IMS, TQM, health management, risk management and EFQM.

Beside these topics, several answers referred to the areas “innovation management”, “knowledge management/learning organisations”, “process management”, “company assessment” and “supply chain management”. Some of the interview partners have chosen the particular problems of SMEs in the implementation process as their main area of research.

When asked about the most important **need for research** in the context of IMS, priority was given to theoretical design aspects. The starting point is the demand for the development of a basic concept for an IMS that is applicable to all lines of business. On the basis of this demand, especially two open research questions were emphasised: “development of process models” and the interfaces of IMS with “knowledge management” resp. the ideas of a “learning organisation”. Four other aspects were also mentioned by a research representative:

- Individualisation/Increase of Flexibility of IMS
- IMS and Innovation Management
- IMS and Sustainable Development
- IMS for Supply Chains.

A significantly smaller number of research representatives have focused on the issues of implementing an IMS. All in all, however, two areas of research were mentioned rather often in this field:

- Motivation and participation of the employees in IMS together with building the organisational background of the system
- A cost-benefit-analysis and the connection development of planning, information and control techniques.

9 Summary

1. **Level of Implementation of (Integrated) Management Systems:** Compared with producing companies, management systems do not yet play an important role in trade and service companies. Nevertheless, more and more companies are prepared to build up the different systems and to integrate these. Especially quality, environment and occupational health and safety management systems have already been implemented in most of the companies surveyed, or they are at least being planned.
2. **Management systems fail to work** mainly if there is not sufficient support from the top management. Other reasons for failure are operational activities taking up all the time, employees that are not sufficiently trained and the extensive documentation. The implementation of management systems in trade and service companies generally is more problematic than in producing companies, but no fundamental implementation barriers were identified.
3. **Reasons for and against Integration:** There are many reasons in favour of an IMS. The internal process optimisation together with transparency and reduced time and cost are the most important reasons. There are no decisive arguments against integration. However, it was pointed out that there is a lack of suitable implementation tools. What is remarkable is that consultants and certification bodies consider the implementation and maintenance of management systems to be significantly less problematic than companies.
4. **Characteristics of an IMS:** The main features of an IMS are its capability to promote innovation in the company and its process orientation. With regard to process management, the companies have an remarkably high level of implementation and knowledge.
5. **The Scope of a Management System** should not only include locations and branch organisations, but also complete supply chains, and it should also be possible to obtain a certificate for this comprehensive system.
6. **The most important areas of integration** in companies are the documentation together with the issue of strategic management (company philosophy, objectives, controlling).
7. **Consultancy and Training Agencies** are especially contracted to train the top management and the employees, to carry out an initial review of the company and to design a process model. All other tasks connected with the implementation and maintenance of management systems are carried out by the companies themselves or in co-operation with external service companies.

-
8. **Standardisation and Certification:** The models ISO 9001 : 2000, EFQM and ISO 14001 were considered to be a suitable basis for an IMS. What is more, the ISO 9001 : 2000 process model was regarded as suitable – possibly after small adjustments- for trade and service companies, too. In spite of this positive evaluation of the existing standards, especially the majority of companies would like to have a special norm for IMS.
 9. **IMS in SME:** Experts expect the implementation of an IMS to be the easiest in a medium-sized company. The implementation in small and big companies is seen to be more problematic. In very small companies, the implementation is believed to be very problematic.
 10. **Cultural Differences:** In Britain and Sweden, the attitude towards management systems and their integration and standardisation on the whole is more positive than in Germany: management systems have spread more widely and the assessment of the cost-benefit-relation of (integrated) management systems is much more positive in Britain and Sweden. In Germany, however, there is a much stronger emphasis on implementation problems.

10 Questionnaire

On the following eight pages, you will find the companies' questionnaire. The other groups (consultants, certifying authorities and research representatives) have received a slightly modified questionnaire.

11 The Authors

Dr. Dirk Funck

Born in Cuxhaven in 1966. Academic assistant and lecturer at the Institute for Marketing and Trade at the University of Göttingen. Main areas of research: integrated management systems, ecological marketing, vertical competition. E-Mail: dfunck@gwdg.de.

Dipl.-Ing. Markus Mayer

Born in Laupheim in 1965. Academic assistant at the Institute for Marketing and Trade at the University of Göttingen. Main areas of research: standardisation concepts for environmental and quality management in service and trade companies. E-Mail: mmayer@gwdg.de.

Dipl.-Kff. Stefanie Schwendt

Born in Kassel in 1972. Academic assistant at the Institute for Marketing and Trade at the University of Göttingen. Main areas of research: integrated management systems, innovation processes and knowledge management in trade companies. E-Mail: sschwen@gwdg.de.

We would like to thank our student assistants Holger Jahn, Daniela Meyer, Saskia Richter, Kerstin Weihe und Elmar Wind, who have supported the input and analysis of the data with great commitment.

Address of the Institute

University of Göttingen
Institute for Marketing and Commerce
Teaching Division Prof. Dr. Bartho Treis
Nikolausberger Weg 23
D-37073 Göttingen
Tel.: 0551 / 39-4447
Fax: 0551 / 39-4446

Internet:

Teaching Division: <http://www.handel.uni-goettingen.de>
Research Project: <http://www.ims-research.de>