

Integrated Management Systems – inclusivity of approach or dilution of problems?

Introduction

The concept of the management system has been widely diffused across industry. The systematic approach to the management of a wide variety of issues has become the favoured approach of industries large and small, and has also spread into other sectors, including service industries, local government and public bodies. It is not only a phenomenon of the industrialised North, but is also relatively common in the businesses and organisations of the 'tiger economies' of SE Asia, and even in the Economically Less Developed Countries (ELDCs) of Africa and South America, especially where larger corporations and organisations are concerned.

Management systems cover a number of issues that are widely recognised as benefiting from a systematic approach. Many companies have quality management systems certified to international standards. The past decade has seen the development of Environmental Management Systems, and there has been a relatively rapid increase in certification to international standards, such as the ISO 14001. Alternatively, some companies have opted to develop in-house environmental management systems. There are management systems designed to bring a systematic approach to health and safety, the new Occupational Health and Safety Standard (OHSAS) ISO standard being one example. Very recently, the concept of the Sustainability Management System has been launched in an operational form in the UK, under the SIGMA initiative. It is expected that this will assist companies to bring a more coherent and systematic approach to the challenging issues of social and ethical responsibility. Thus, businesses are being faced with a range of demanding standards, processes and concepts. Whilst many attempt to address them as pressures from legislation, suppliers or other stakeholders mount, many are also deterred by the sheer scale of the work involved (perceived and actual), or have experienced difficulties in developing management systems in the past and are currently suffering from a bad case of initiative fatigue.

While each of these management systems is designed to address a different set of issues and concerns, the history of their development and the functions they are designed to fulfil mean that there are many close similarities between them. Company managers facing pressures from external stakeholders to implement these systems are beginning to ask the fundamental question: is it time for integration? Interest is developing in the possibility of combining the most commonly used management systems into one integrated system, thus enabling company managers and company employees to have a more holistic and coherent view of the way in which they carry out the industrial process. Integration is seen as the possible delivery mechanism for reduced investment in

time and effort, optimisation of resources and more effective and strategic decision making by management to ensure a rapid response to changing societal demands on individual companies.

This paper sets out to question the assumptions that integration is likely to prove beneficial to all, whilst acknowledging the seemingly obvious outcomes that integration will undoubtedly produce. It considers the issue of true integration as opposed to the alignment of systems whereby processes and procedures are brought into line with each other, but are not truly integrated in their application to the business.

The concept of the management system is firstly introduced followed by a brief review of the historical development of each system. The management systems are compared to enable the similarities and differences to be identified. The concept of the integrated management system (IMS) is introduced and the particular features and characteristics explained, to show how these differ from the alignment of existing systems. The benefits and drawbacks of the IMS approach are discussed, and the implications for companies and organisations of different sizes and from different sectors are briefly considered.

Using the ideas discussed above, and opinions and views collected from company managers during research projects managed by the author, the key question is addressed. The idea that an IMS will act to create a more joined-up inclusive approach is subjected to critical analysis, in the hope that it will encourage business managers and academics to think carefully about a headlong rush towards yet another management system, that may be viewed as the solution to all ills, but which may turn out to be another initiative creating stress and dissension throughout the company. The potential for such dilution of management effectiveness is discussed, as the IMS may cause a business to have a less coherent and controllable picture of its management activities, and thus reducing the capacity of the business to respond to new demands in a rapid and effective manner. The paper concludes by weighing the potential for success or disaster for companies and makes some suggestions as to whether the development and implementation of the IMS is really the best way forward.

Management Systems - the concept

Businesses and other organisations have aims and objectives they wish to achieve. These aims and objectives can range from the simple economic desire to make a profit, to the need to ensure high quality products to retain market position, through to a desire to respond to on site incidents concerning the health and safety of employees, the local environment, or to respond to many other demands from society as public concerns and anxieties develop. Broad objectives that encompass these needs and desires can be subdivided into more specific objectives, and the business or organisation will then seek ways to translate these objectives into reality using a variety of different means. All

companies will have aims, objectives and means, but until relatively recently many of them were unlikely to have these formalised into a systematic approach that they could use to control their activities, and to measure their degree of progress towards achieving their objectives.

A management system, therefore, "attempts to bring objective setting, and the determination of the means by which they will be achieved, into a systematic framework" (Wye College, 1997:13:3). It allows businesses and organisations to formalise their intentions and make informed decisions about the means they will employ to fulfil these intentions. A management system also identifies the roles that each employee will play within the system and identifies the ways in which these responsibilities will be fulfilled by documenting the necessary processes and procedures.

Once established, a management system provides a framework in which changes in objectives and means can easily be absorbed and communicated to employees and other relevant parties. Periodic review of management systems means that the company or organisation can ensure that "procedures are occurring as they should...objectives are being achieved...original objectives are still appropriate" (*ibid.*). Properly implemented, a management system will define clear objectives, communicate those objectives and the means by which they may be achieved to all stakeholders including employees, seek commitment from senior management and employees, utilise the ideas as well as the skills of employees in maintaining and improving the system, provide training and reviews of progress of all aspects of the system, and ensure that the system remains dynamic and responsive to the continuing needs of the company or organisation.

When management systems fail to achieve the objectives of the company or organisation, there are a number of causes that are generally recognised as being the common pitfalls of system implementation. These relate to issues of inadequate resource or capacity provision, lack of commitment from senior management, failure to assign responsibilities fairly and effectively, poor training and awareness raising for employees, weak lines of communication and lack of communication channels to elicit input from employees to identify some, but not all, of the potential barriers. When an organisation or company fails to address these problems in one management system, it is likely they will occur in any other management system that is developed or implemented. The challenge that faces the IMS is to see if it can resolve these problems, although the potential exists for those same problems to occur again, but in an integrated approach.

Brief review of management system development

The first management systems recognised as distinct from *systems of management*, were those developed for the management of quality issues in businesses. Quality in the original manifestation of the management system

design to address the issue was the concept of conforming to the specified requirements of the customer. A quality management system is

“the related policies, practices and procedures that are used to direct an organisation’s activities towards meeting specified requirements. These are focused on the requirements specified by the purchaser of the products (or services) of the organisation subject to the contractual relationship between the purchaser and supplier” (Gilbert,1993:9). The first quality management system was developed in the UK by the British Standards Institute, coded as BS5750. This system was the first complete systematic approach to the management of quality in the industrial process, and was quickly followed by an international standard based on the BS5750 platform, but developed by the International Standards Organisation (ISO), this was coded as ISO9000. ISO9000 provided companies with a complete structure of guided pointers and areas of concern that could be addressed by the development of procedures within the company. There were criticisms of ISO9000 especially where the system began to take over the organisation, rather than the organisation using the system to achieve its quality objectives (Sheldon and Yoxon, 1999:5).

The publication in 2000 of the revamped ISO9000 system as ISO9000:2000 was the response to years of criticism by businesses that the original standard was over complicated, inflexible and was in effect a "paper chase". Where ISO9000 had failed in companies due to a lack of understanding of the importance of the pre-existing company culture, managers had misunderstood that the means by which the system work did not comprise the goal of quality management (Sheldon and Yoxon, 1999:5). The new standard addressed these criticisms by being more in tune with the reality of business life and the individual needs of companies. What it did do, however, was demand more from companies in their commitment to actual quality management, whilst lessening the burden of documentation and procedural overload. The other major change in the standard was its inclusion of the term 'continual' as applied to improvement, rather than 'continuous' that appeared in the original standard. The requirements of the continuous improvement principle was traditionally interpreted as the *evaluation* of the opportunity for improvement, where "auditors typically only required an evaluation of the indicators available, such as corrective and preventive action, and were looking for areas of improvement" (Beynon, 2002). The new approach of continual improvement should be expected to demonstrate positive movement across the entire system, even if it is incremental (ibid.) The new standard has much greater emphasis on the necessity to measure the effectiveness and competency of resources, and the need to follow - up actions to ensure progress is made.

Environmental management systems were developed during the early years of the 1990s, following the raising of environmental issues at, for example, the Rio Earth Summit in 1992, and demands from businesses for a more systematic approach to the management of the environment. The first environmental

management system standard was developed in the UK. BS7750 was launched by the British Standards Institute in 1994, being joined by a version developed by the European Commission in 1995. This Eco-Management and Audit Scheme (EMAS) was not in fact a standard, but was a Regulation under the EC definition. Its similarities to BS7750 on which it was based, and the function it fulfilled, as a systematic approach to environmental management, meant that it is often referred to as a management system standard. Business interest in both of these management approaches meant that interest in an international standard was inevitably raised and the development of ISO 14001, also based on BS7750, by the ISO led to it replacing BS7750 (and other national environmental management system standards) in 1997. At the end of the 1990s review processes of both EMAS and ISO14001 led to a more congruent situation following which it was recognised by the EU that ISO14001 should constitute the environmental management system component of the EMAS scheme, and by ISO that ISO14001 should contain a greater emphasis on the inclusion of employees into the implementation process, and on the use of checking and corrective action than it had held previously (<http://europa.eu.int/comm/environment/emas/faqs> accessed 2002). Currently, global certification to ISO14001 stands at 36001 (end of January 2002) (ISOWorld,2002) and EMAS certifications at 3982 (end of January 2002) (ISOWorld,2002). The rate of adoption of ISO14001 has been most rapid, the period from 1996 to 2002 seeing a relatively rapid rate of growth compared to the slow spread of certification to EMAS. There are, of course, many companies that have internally developed environmental management systems, or industry sector developed programmes. Companies choose not to seek external certification often because of the cost implications.

Systems to manage health and safety are not uncommon. Most companies have developed some procedures to manage aspects of health and safety, but in the UK at least there has been no externally certifiable management system until the development of the ISO 18000 OHSAS (Occupational Health and Safety) system in 2001. BS8800 was the UK basis for the OHSAS system.

Quality, environment and health and safety are the content of the three most often used management systems, but very recently sustainability has been the subject of a new management system. In the UK, a DTI, Forum for the Future and the Institute of Social and Ethical Accountability funded initiative, the SIGMA project, started in 2001 has started to pilot a sustainability management system with a small number of companies. A sustainability management system would enable businesses to bring a more rigorous approach to social and ethical issues, where external stakeholders demands especially are difficult to address.

Table 1 provides a comparison of three of the main systems to highlight the similarities and differences between them. General business perception is that there are so many similarities that the development of an integrated system would be an easily accomplished task, although the definition of integration can

vary as discussed later. As the table shows there are indeed many similarities between these systems, Unsurprisingly, as they developed from a background in which the overall concept of the management system has been taken, and built on and refined to address different topic areas, but not different concepts. It is apparent that these systems having been developed more recently are less prescriptive and formalised, and include flexibility for interpretation to occur. Management systems should, after all, be moulded to fit a company, not vice versa.

All three systems have the basic structure of aims, objective and procedures, of training, monitoring and reviewing the progress the system is making, using essentially- the plan, do, check, act approach espoused by W. Edwards Deming in the 1950s. ISO9000:2000 retains some of the detail and complexity of the previous ISO 9000 system, while ISO14001 and BS8800 provide the facility for a wider interpretation of each of the sections of the system. It is interesting to note, however, that all now include a similar commitment to training and competence and to the importance of communications. Given the similarities between these systems, and the recent revisions of EMAS, ISO14001, ISO 9000 and the development of BS 8800 and ISO (OHSAS 18000), it is clear that the integrated approach would seem to offer those businesses wishing to tackle all these issues (and others) a chance to reduce the burden of proliferation and allow them to concentrate on the benefits that integration might offer.

| Structure and Elements | ISO14001 | BS8800 | ISO9000 : 2000 |
|--|---|--|--|
| Introduction and Scope | 4.1 General | 4.01 General | 4.1 General |
| Policy | 4.2 Environmental Policy | 4.1 Health and Safety Policy | 5.1 Management commitment |
| | | | 5.3 Quality policy |
| | | | 8.5 Improvement |
| Organisation | 4.4.1 Structure and Responsibility | 4.3.1 Structure and Responsibility | 5 Management responsibility |
| | | | 5.1 Management commitment |
| | | | 5.5 Responsibility, Authority, and Communication |
| | | | 5.5.1 Responsibility and authority |
| | | | 5.5.2 Management representative |
| | | | 6 Resource Management |
| | | | 6.1 Provision of resources |
| | | | 6.2 Human resources |
| | | | 6.2.1 General |
| | | | 6.3 Infrastructure |
| | | | 6.4 Work environment |
| Planning | 4.3 Planning | 4.2 Planning | 5.4 Planning |
| | | 4.2.1 General | |
| | 4.3.1 Environmental Aspects | 4.2.2 Risk Assessment | 5.2 Customer Focus |
| | | | 7.2.1 Determination of requirements related to the product |
| | | | 7.2.2 Review of the requirements related to the product |
| | 4.3.2 Legal Requirements | 4.2.3 Legal Requirements | 5.2 Customer focus |
| | | | 7.2.1 Determination of requirements related to the product |
| | 4.3.3 Objectives and Targets | | Quality objectives |
| 4.3.4 Environmental Management Programme | 4.2.4 Health and Safety Management Arrangements | 5.4.2 Quality management system planning | |
| | | 8.5.1 Continual improvement | |

| Structure and Elements | ISO14001 | BS8800 | ISO9000 : 2000 |
|-------------------------------|---|--|--|
| Implementation and Operation | 4.4 Implementation and Operation | 4.3 Implementation and Operation | 7 Product Realization |
| | | | 7.1 Planning of product realisation |
| | 4.4.2 Training, Awareness, and Competence | 4.3.2 Training, Awareness and Competence | 6.2.2 Competence, awareness and training |
| | 4.4.3 Communications | 4.3.3 Communications | 5.5.3 Internal communication |
| | | | 7.2.3 Customer communication |
| | 4.4.4 EMS Documentation | 4.3.4 Health and Safety Documentation | 4.2 Documentation requirements |
| | | | 4.2.1 General |
| | | | 4.2.2 Quality manual |
| | 4.4.5 Document Control | 4.3.5 Document Control | 4.2.3 Control of documents |
| | 4.4.6 Operational Control | 4.3.6 Operational Control | 7 Product Realisation |
| | | | 7.1 Planning or product realisation |
| | | | 7.2 Customer related processes |
| | | | 7.2.1 Determination of requirements related to the product |
| | | | 7.2.2 Review of the requirements related to the product |
| | | | 7.3 Design and development |
| | | | 7.3.1 Design and development planning |
| | | | 7.3.2 Design and development inputs |
| | | | 7.3.3 Design and development outputs |
| | | | 7.3.4 Design and development review |
| | | | 7.3.5 Design and development verification |
| | | | 7.3.6 Design and development validation |
| | | | 7.3.7 Control of design & dev'ment changes |
| | | | 7.4 Purchasing |
| | | 7.4.1 Purchasing Process | |
| | | 7.4.2 Purchasing Information | |
| | | 7.4.3 Verification of Purchased Product | |
| | | 7.5 Production and service provision | |
| | | 7.5.1 Control of prod'n & service provision | |
| | | 7.5.3 Identification and traceability | |
| | | 7.5.4 Customer property | |
| | | 7.5.5 Preservation of product | |
| | | 7.5.2 Validation of processes for production and service provision | |
| 4.4.7 Emergency Preparedness | 4.3.7 Emergency Preparedness | 8.3 Control of nonconforming product | |

| Structure and Elements | ISO14001 | BS8800 | ISO9000 : 2000 |
|--------------------------------------|--|------------------------------------|---|
| Monitoring, Analysis and Improvement | 4.5 Checking and Corrective Action | 4.4 Checking and Corrective Action | 8. Measurement, analysis and improvement |
| | 4.5.1 Monitoring and Measurement | 4.4.1 Monitoring and Measurement | 7.6 Control of monitoring and measuring devices |
| | | | 8.1 General |
| | | | 8.2.1 Customer satisfaction |
| | | | 8.2.3 Monitoring and measurement of processes |
| | | | 8.2.4 Monitoring and measurement of product |
| | 4.5.2 Nonconformance and Corrective/Action | 4.4.2 Corrective Action | 8.4 Analysis of data |
| | 4.5.3 Records | 4.4.3 Records | 8.3 Control of nonconforming product |
| 4.5.4 Audit | 4.4.4 Audit | 8.5.2 Corrective action | |
| Review | 4.6 Management Review | 4.5 Management Review | 8.5.3 Preventive action |
| | | | 4.2.4 Control of records |
| | | | 8.2.2 Internal audit |
| | | | 5.6 Management review |
| | | | 5.6.1 General |
| | | | 5.6.2 Review input |
| | | | 5.6.2 Review output |

Table 1 : Comparison of Structure and Elements of three main management systems (Adapted from Beynon, 2002)

Integrated Management Systems

The concept

The UK Institute of Occupational Safety and Health (IOSH) define Integrated Management Systems as

"the integration of matters such as organisational structures, strategic decision making, resource allocation and the processes of auditing and reviewing performance" (<http://www.iosh.co.uk>, accessed 2002)

The importance of integrating one system with all other parts or organisational systems within a company is demonstrated by the McKinsey 7S model shown in Figure 1 below. His 'seven elements' approach (Pascale, 1991) breaks down the entities of an organisation into its component parts. Each of the elements have to meet the needs of the shared purpose of the organisation to create a balanced management system. McKinsey's model is the basis on which an effective IMS will be based. It shows the core of the system as being led by the company culture and belief systems, and as highlighted elsewhere in this paper, it is the lack of a clearly defined company value set and culture that often leads to system failure. Even if a company has a core set of values and a relatively clearly defined culture, this may not be used as the focal point for the management system approach, and this then leads to the system becoming dominated by procedures rather than performance, as has been the case with environmental management systems (ENDS, 2002). McKinsey's model is also useful in that it gives equal importance to informal behaviours, the role of employees and the necessity for skills, as it gives to the structural and procedural aspects. Again, the IMS approach will work only if the system is embedded deep into the company's bones, as neglecting the importance of less tangible aspects of the company's activities will also mean that problems are likely to occur.

The actual structure of the IMS should, therefore reflect the needs identified above. It should provide equal credence to the input of ideas and actions from all employees as to the structures and procedures developed by management. It should place training and other activities designed to reinforce inclusivity as a high priority, and should ensure a regular training and team based approach to the solution of problems. Figure 2 below shows the structure of the IMS and the way in which it responds to the people based needs, by going beyond the standard triumvirate of management systems for inclusion.

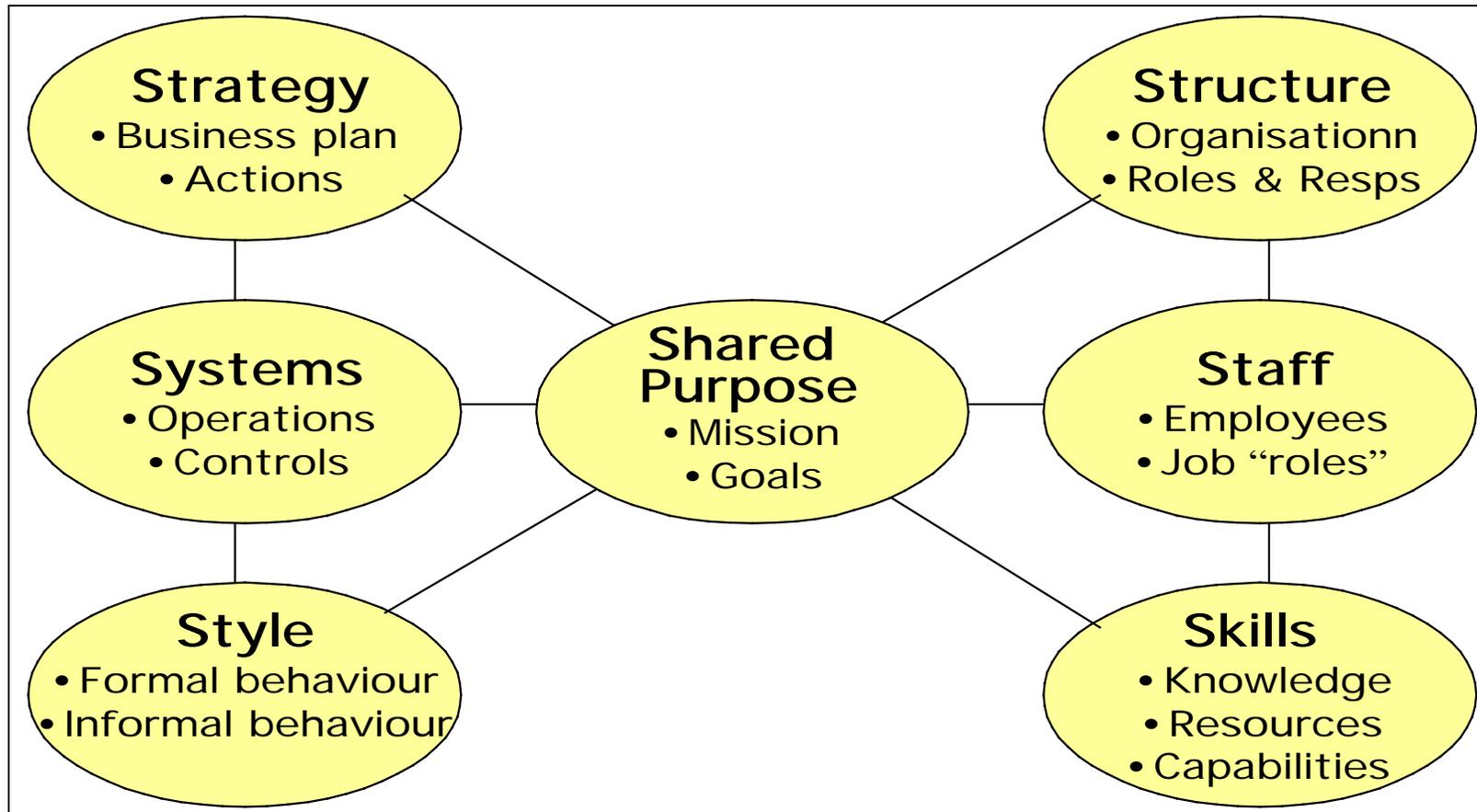


Figure 1 : McKinsey's 7S Model (Pascale, 1991)

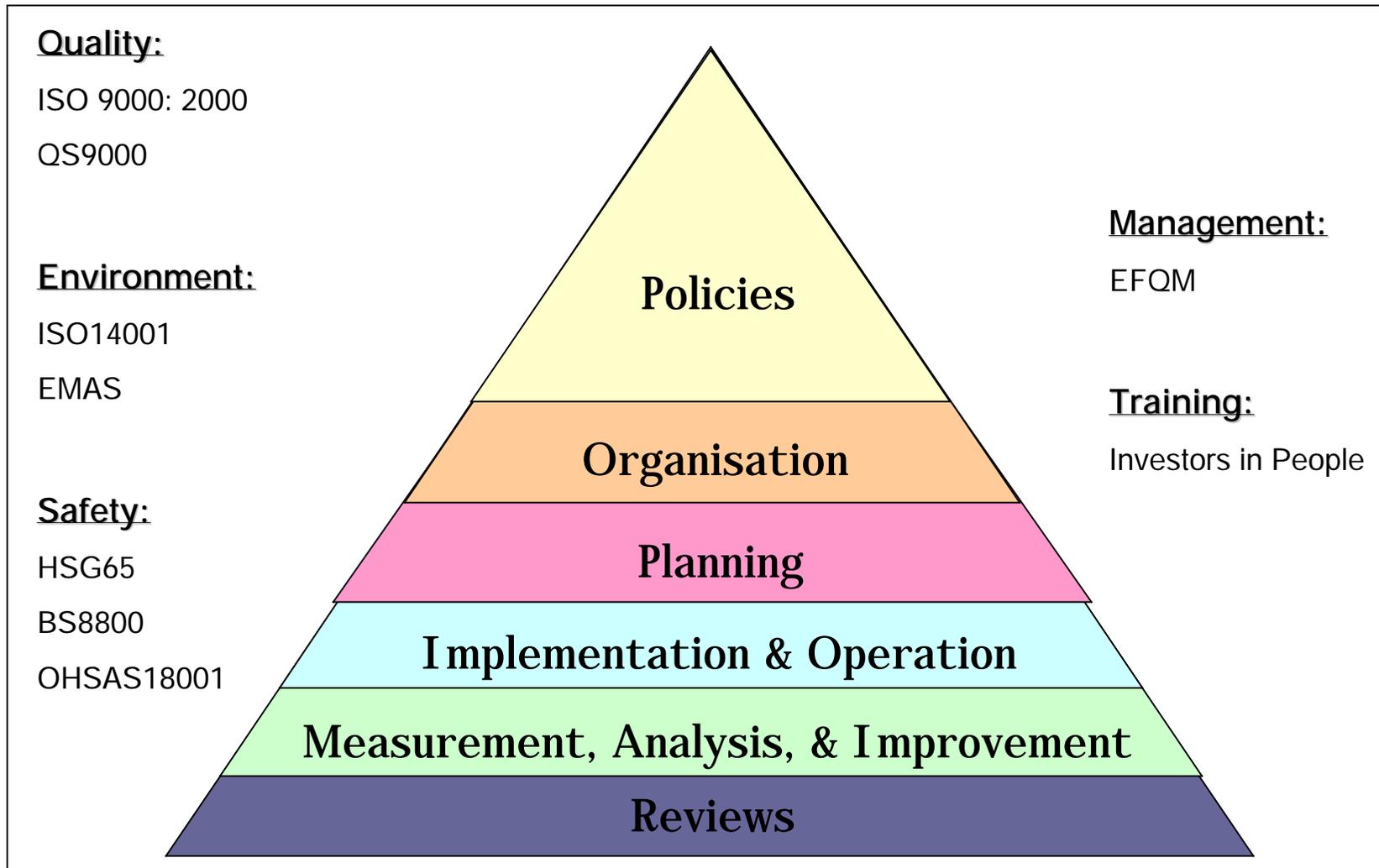


Figure 2 : The structure of the IMS and the management systems and other programmes it could encompass (taken from Beynon,2002)

Figure 2 shows the way in which the IMS can include not only the major recognised management systems, but also widely used other initiatives and programmes such as Investors in People. The inclusion of these training and people centred programmes are vital if the balance between procedural compliance and actual progress and achievement through implementation is to be maintained. It also begins to show that integration is not likely to mean a simple parallelisation of systems. This parallelisation, or alignment approach, is one of the key issues that may cause the IMS to fail in its objective of deep seated integration. There remains a perception amongst business people (see below), that integration means little more than a together of putting procedures (in one manual rather than three). Instead, the fundamental differences between alignment and integration are what will determine to a large extent the nature of the system that is developed, the degree to which it can be truly inclusive and the potential danger than exists for the spreading of problems and duplication of problems across a multitude of badly stuck together systems, rather than one fully integrated one.

The differences between alignment and integration are summarised in Figure 3.

| INTEGRATION | ALIGNMENT |
|---|--------------------------|
| Integration | Individual Approach |
| Teamwork | Same Language |
| Full Integration | Same Structure |
| Single Message | Focus on Separate Issues |
| No Confusion | |
| Inclusion of all employees in all aspects of the business | |

Figure 3 : Two approaches to an IMS – the difference between alignment and integration (adapted from Beynon, 2002)

It is important to note the identification of teamwork as an individual component within a truly integrated approach, as without teamwork acting as the main means by which inclusion is achieved the system may well dissolve into its separate, and individual, parts.

The Benefits of IMS

Despite some of the points raised above that identify the demands of the IMS if it is to operate effectively, there are, of course, many benefits likely to accrue from the proper implementation of such a system. Figure 4 summarises the perceived benefits of the IMS approach.

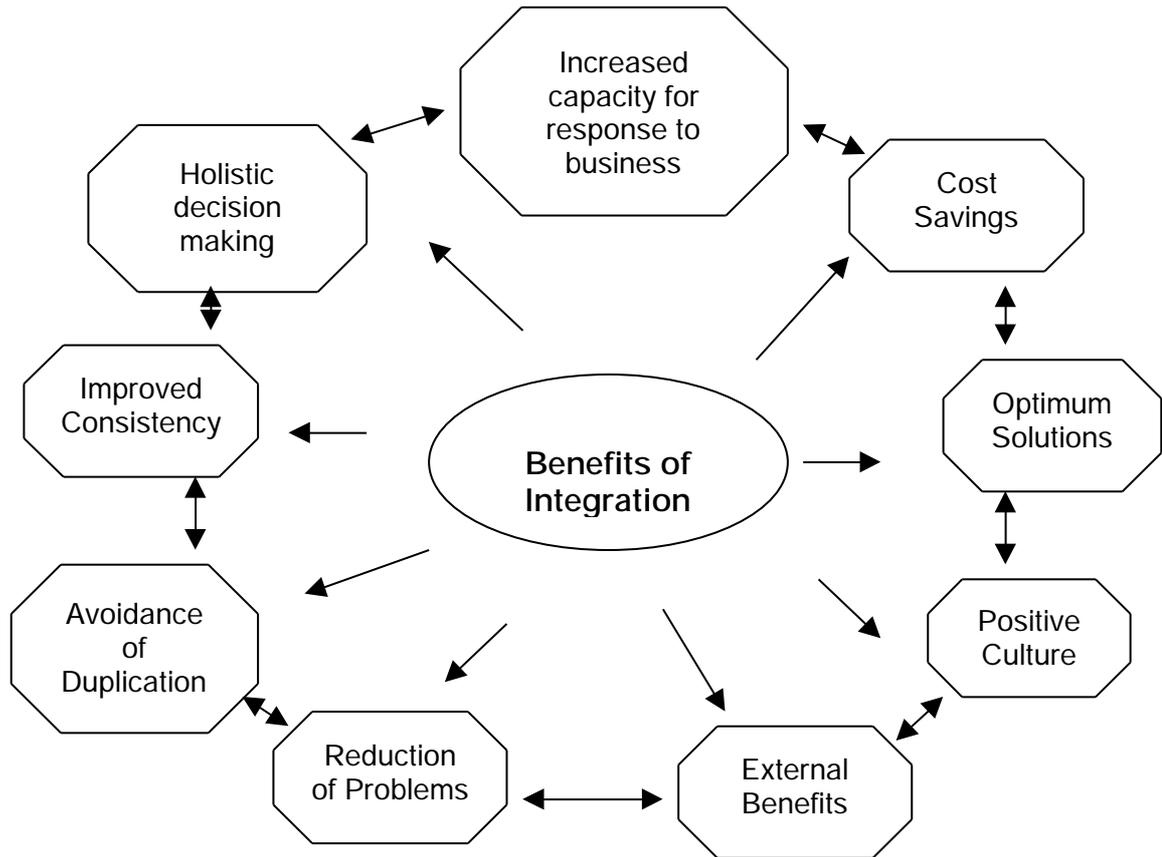


Figure 4 : Perceived Benefits of the IMS approach

It is expected that an effective integrated system will be more efficient than non-integrated systems in that it is designed to be proactive. As a result an IMS could reduce 'fire fighting' and allow managers to free themselves from constant intervention in the daily operations of a business. It should provide a more effective means of identifying problems before they really occur and identifying correct solutions more easily. Such a response would enable employees to become more confident in their ability to respond to problems rapidly, to make decisions based on their own judgement and understanding of the business from a more holistic viewpoint. It should also be much more effective than the current separate systems at providing objective and accurate integrated data that can be used to obtain an overall picture of the business performance, and to monitor progress across all business functions; it will allow much more joined up thinking to take place.

The barriers to successful integration

It should already be apparent that the IMS if integrated fully into the firm will place certain demands on the way the firm is managed, and on the management culture that is needed if it is to meet with success. Companies that perceive the IMS in terms of alignment rather than integration will fail to understand that the barriers that they may have encountered in implementing previous management systems, or any programmes or initiatives for that matter, will occur again and again unless they tackle the company's management culture and communication weaknesses. Figure 5 provides a summary of the main barriers to successful integration of systems. It is quickly apparent that most of the barriers will be posed by people. People who resist change because they fear its affect on their position in the company, either through the loss of their job, a reduction in status or an increase in workload. People who have been encouraged by the culture of the company in the past to think in compartments and who are reluctant to face the challenge of thinking, and making decisions, that are more lateral and holistic in their approach. People who are not managed carefully throughout the process of change to the IMS, and who arrive full of confusion, resentment or cynicism about the benefits of that change. Any or all of these may conspire to render the implementation of the IMS a fruitless exercise, and can lead to the breakdown of the system meaning the capacity for response to problems has in fact been diluted.

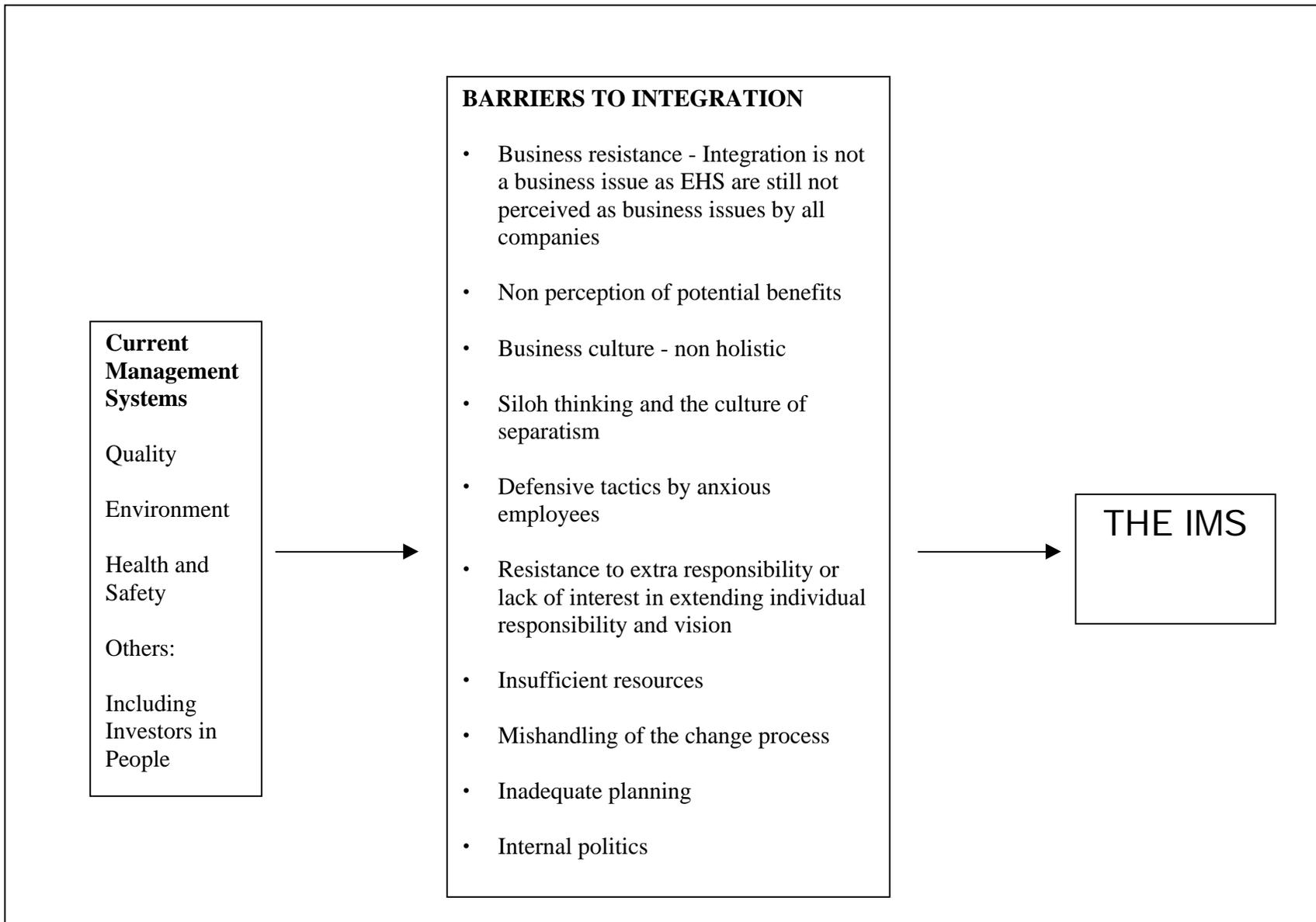


Figure 5 : Perceived Barriers to Achieving IMS

Company views of the potential of the IMS

Using data gained from a research project carried out by the author, some initial comments can be made about the views held by company managers towards the potential of IMS, and the approach they were deciding on in the near future as to general management system implementation. The companies visited were all located in south Wales in the UK. They included a small number of SMEs that were involved in an environmental supply chain management programme, and a small number² of large companies that had substantial experience of implementation of a range of management systems.

The SMEs were under pressure from their customers to adopt environmental and health and safety management systems. Most of the SMEs already had ISO 9000, and some were beginning to consider the changes included under ISO9000 : 2000. Although the customer companies were being quite forceful in their demands that the SMEs moved towards certification of ISO14001 In particular, the opinion of most of the managers was one of dismay. They suggested that it was "a waste of money going for ISO14001, when a standard integrating everything might be just around the corner" and were rather resentful of the customer pressure, pointing out that "its alright for them [the customers]..they've got the resources and the money...we're working on a budget that doesn't allow for extras". The managers spoken to in these companies could only see benefits in the IMS approach. They thought that for SMEs in particular, a system that combined everything was ideal, as it was often only one or two managers in the company who were "managing everything, responsible for everything".

The problems inherent in the implementation of an IMS, the need to have an inclusive company culture, and an understanding of the principles underlying the IMS approach did not appear to be fully realised by these managers. Their actual knowledge of what an IMS might contain, or demand of them, was limited, and it the idea of combining three systems into one that stimulated their interest. Their reasons for wanting such a system could be distilled into three main points – to save money, to save time and resources, and to achieve the management system certification easily so that they could satisfy their customers. Many of the SME managers were already deeply cynical about management systems, having obtained ISO9000 at some expense and at the request of customers, only to see their tenders for contracts being outbid by companies at a cheaper price and with no ISO certification. For this reason, they were very reluctant to move towards ISO14001 or OHSAS 18000, and felt that the IMS route would offer them a better option. However, it was clear that they were not really thinking about integration,

The project concerned was the ERDF funded SENVA project. The 12 SMEs involved in this particular part of the study were all suppliers of a giant chemical complex located in Barry, south of Cardiff. The complex included 5 international chemical companies

² The large companies were also visited under the SENVA project throughout 2000 and 2001. Some 7 companies were questioned about IMS amongst other issues concerning environmental and health and safety management

but about alignment of systems, and there was a great danger that these companies would try to implement an IMS at some point in the future based on the premise that it would be a simple matter of writing more procedures and ensuring cross referencing between records.

The viewpoint of larger companies was somewhat different, although some of the same issues were raised. The majority of the larger companies visited under the project already had ISO9000, many were either certificated to ISO14001, were in the process of implementing it or were considering it as an action for the near future. All the companies had a well developed approach to health and safety although there few companies that were already certified to OHSAS or BS8800. Many of these companies had Investors in People, and well developed training programmes, although these carried according to the topic. Health and safety training was usually at the top of the priority list, whilst environmental training could be much less well developed. The awareness of the IMS concept was much higher in the larger companies than in the SMEs. An unsurprising fact, given that SMEs are notorious for their lack of awareness of such initiatives. There was less obvious enthusiasm for the idea of the IMS approach, even in companies where the health and safety manager already undertook environmental management as well. Although the concept of IMS was generally acknowledged to be a potentially beneficial one, there were a number of reasons that made some of these companies less inclined to go ahead and develop an integrated system. One of these reasons was purely to do with the defensiveness felt by section or departmental managers against the intrusion of 'new' systems that might erode their position within the firm. Quality managers, for example, could often see problems in integrating 'their' system with those of 'other people'. This pointed to a lack of focus and shared views amongst such companies. The reason often quoted was that it would mean "a lot more money and lot more resources if such a [IMS] system was to be developed". The tradition of treating different issues as separate issues can be deeply entrenched in firms, and there is still resistance apparent, especially at the level of the issue manager or section head, that issues other than those they deal with are less important to the profitability and smooth running of the business. The view from others in the firm can be quite different. Senior managers, or those overseeing the management of the whole company, such as Production Managers, can see the overlap and duplication that running systems side by side can cause. They tend to be much more in favour of having an integrated approach. This is not just for the expected reasons, such as those identified by the SMEs i.e. saving money, using less resources and son on, but for more strategic reasons as managers at this level can see the need to build a company that is more responsive and effective to changing external conditions. The importance of company management culture was again apparent in some of these large companies. Where managers felt that they already existed in an environment in which their opinions, and those of all employees, were valued they were more positive about the likely success of integration. When the company used teams as a common mechanism for problem solving then again their was a more positive feeling about the IMS

approach. In one or two companies that were based on rather rigid hierarchical lines, where communication with employees was rather dictatorial or paternalistic rather than inclusive the prognosis was more negative. Finally, in discussion with representatives of some of these companies, it was apparent that the issue of alignment as opposed to integration was still causing confusion.

While the concept of the IMS definitely held attractions for many companies for a variety of reasons, what an IMS actually entailed, and the principles on which it was founded were much less well understood.

IMS - inclusivity or dilution?

The discussions above begin to raise some of the questions that must be asked about the idea of system integration. It would appear that the IMS approach is being viewed by some as the saviour of the management system approach. Company managers seem generally positive about the perceived benefits of the system. In large companies where systems are often applied side by side, but separately, the idea of integration has been received by CEOs, production and site managers with relief, as they all too often see the results of lack of co-ordination between separate systems or wasted resources due to overlap. It is likely that the managers, and sometimes departmental employees responsible for the running of each separate system may be less convinced of the benefits of integration, especially if its involves loss of employment or potential initial extra work.

The potential undoubtedly exists for great benefits to be obtained from the IMS. It offers a more coherent and holistic structure in which the resources and processes of the company can be developed to their optimum level. The successful operation of the IMS would seem to provide all stakeholders within the company, and some of those external to it, with a clearer understanding of the company's mission, aims and objectives, the means that they will use to achieve these and their capacity for response to events and changes in the business environment.

The danger exists, however, that the IMS may not receive the inputs and understanding that it requires to be successful in achieving the aims and objectives of the company, As with all of the other management systems currently used by industry, failure occurs when the basic concepts and principles underlying the system are ignored, misunderstood or interpreted in a weak way.

Figure 6 highlights the potential for the IMS to be a success or failure depending on the balance of the factors addressed by a company when implementing the system.

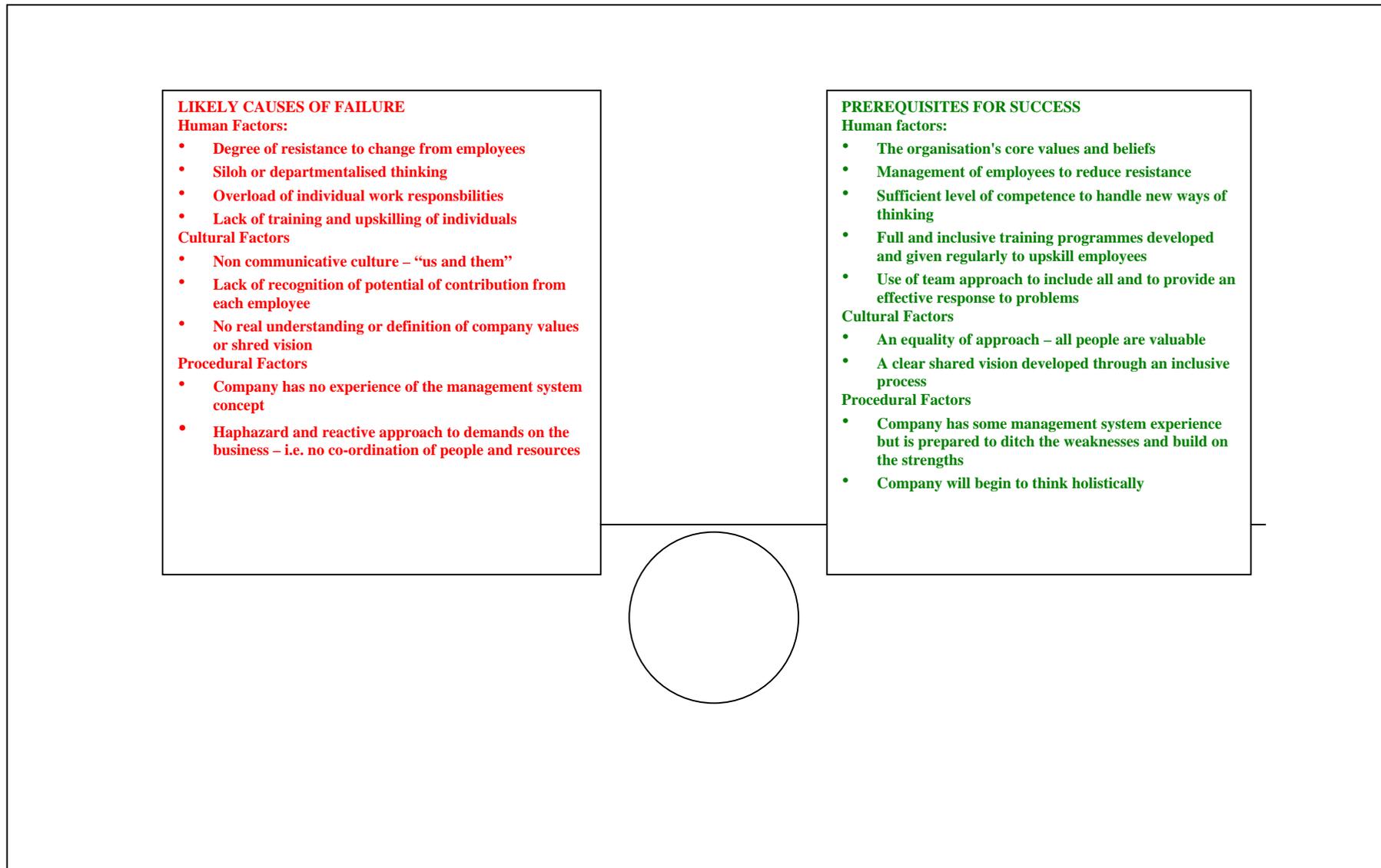


Figure 6 : Getting the balance right – potential causes of failure and success

The difficulty in getting the prerequisites for success to outweigh the likely causes of failure is where the potential for problems to occur arises. Human factors, for example, while easy to identify as potential problem areas, are notoriously difficult to manage, and the need to include effective and ongoing training as part of the IMS development and implementation cannot be over stressed. As with existing management systems, the need to ensure a feeling of ownership amongst employees (and others) is vital if all those operating within the system contribute towards its optimum performance. An IMS does not simply require compliance to the procedure and the ticking of a box, it is placing a much greater responsibility on each employee to act proactively, to think laterally and to have a much more holistic view about his or her individual role in the organisation and the way in which they relate to other individuals. It is not possible to develop an IMS without basing the process on the use of teams. Co-ordinated teams that can cross departmental and functional boundaries, that can include people representing the company from top to bottom (CEO to shopfloor) and that can encourage, using a range of techniques, all employees to participate and feel confident in their ability to contribute will be those that enable successful implementation of the IMS. Where such teams do not exist, or where problems of management, communication or behaviour cause problems that are not quickly addressed the IMS is likely to fail, or at least stumble. The IMS and the principle of continual improvement asks a lot of individuals within a company or organisation as shown in the table below:

| Demands on the Individual - Prerequisites for Successful IMS Implementation |
|---|
| <ul style="list-style-type: none">• People must question the status quo• All ideas should be given serious attention• People must not be willing to accept the inevitable but must fight against it• Individuals must not accept the "good enough is near enough" attitude• Individuals must be able to accept constructive criticism of their performance• People will be expected to have a desire to excel• People must not be satisfied with mediocrity• People must be prepared to share ideas and information• People must trust management, trust other employees, trust suppliers and trust the customer• People must be willing to become team players if they are to really solve company problems• The individual must learn not to fear• The individual must be happy to accept the empowerment that the IMS offers them |

Table 2 : What the IMS demands of the individual

Conclusions

The paper has so far discussed the requirements needed to ensure that the IMS is implemented successfully, and that it provides the organisation with a coherent and holistic approach to achieving its overall aims and objectives. If these requirements are met, and if the IMS is allowed to operate successfully by the effective contribution made by individuals, teams and other stakeholders, it *should* be inclusive. The ongoing training, feedback, cross departmental interaction use of the team approach *should* allow each member of the company or organisation to feel that they are part of the team, that they own the system and that their contribution, whether in deed or word, is always considered, always valued. If this is the case, the IMS will provide the business with a system in which all business aspects are managed and addressed in a completely inclusive way, as part of the business system, not as bolted on issue areas that have been developed in an adhoc and reactive way, and which not only cost the business money initially, but which fail to function effectively and may cause further problems for other areas of the business. If the business has a holistic approach it can see the problems from all sides, can develop resources and ideas from all viewpoints and use the skills and specialist knowledge of people from different departments in a more innovative and competitive way. It is here that the most effective responses to the demands of new environmental legislation will be developed; new producer responsibility legislation such as the End of Life Vehicles Directive needs designers, engineers, environmental specialist, resource and purchasing people and marketing managers to address the implications as a team.

Thus, an IMS needs to have certain characteristics if it is to be sufficiently robust to withstand the demands made on it. Any weaknesses in the system will mean that the coherence of the system may be diluted. Potential weaknesses that do occur will need to be identified and responded to early on. Figure 7 shows the main characteristics an IMS will need if it is to be successful.

If the IMS is not developed to reflect the issues raised above, or if it is treated as an exercise in alignment, the likelihood is that it will fail. It will not only fail to reach the objectives it is designed to address but may cause the business to be more confused and less capable of responding to business issues than when it started. The failure is likely to cause dilution of capacity and the task facing the company to develop a properly integrated system will be twice as difficult faced by a workforce disillusioned and confused. The IMS in itself, if properly integrated, cannot cause the dilution of effective response within a company because of the very nature of the concept. If a truly holistic approach is taken, a holistic response will emerge. It is the degree to which a company understands this, and their grasp of the IMS underlying principles and requirements that will determine whether the IMS they develop is effective or not.

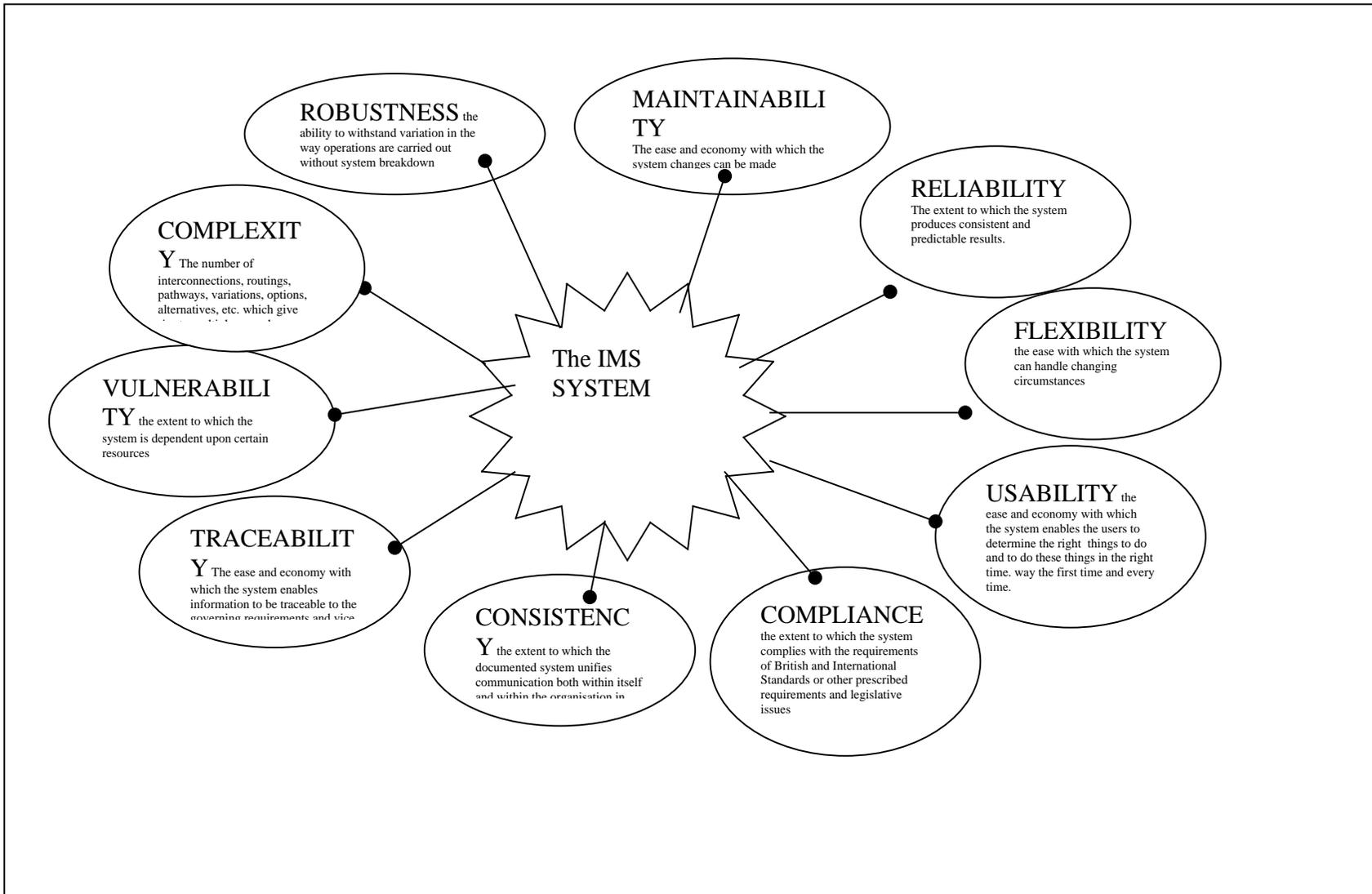


Figure 7 : Characteristics of a successful IMS system

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